



WASHINGTON STREET

"COMPLETE STREET" REDESIGN

CITY OF HOBOKEN, NJ

October, 2014
Final Draft



RBA

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Supporting Technical Memoranda published under separate cover:

- Existing Conditions Report
- Parking Analysis Summary
- **Traffic Count Results and Traffic Analysis Summary**
- Concept Alternatives Analysis Summary
- Pavement Coring Analysis

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ACKNOWLEDGMENTS

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WASHINGTON STREET “COMPLETE STREET” REDESIGN

Executive Summary

VISION

Hoboken’s “Great Street” will be even better with the “Complete Street” Redesign of Washington Street. The Design Concept Plan addresses 16 blocks on Washington Street, from Observer Highway to 15th Street and from building face to building face, incorporating improvements to the physical infrastructure of sidewalk and street to street furnishings. It describes design elements and functions as well as phasing and cost estimates to guide future project development phases, beginning with preliminary design and engineering.

The vision for Washington Street states that, **“Washington Street will be an economic engine that supports local business and attracts visitors and residents.”** The Design Concept Plan incorporates improvements to achieve these ends while respecting Washington Street’s outstanding historic character. The conceptual design will improve functionality, safety, convenience, and comfort for walkers, bicyclists, drivers, buses, loading and unloading operations, emergency vehicles – everyone who uses the street for accessing businesses and residences. Balancing the needs of all street users is at the core of the “Complete Street” approach.

The design concept will also benefit businesses by improving delivery and loading operations and, with new bicycle facilities, by increasing revenue. For example, the 2013 NYCDOT study *Economic Benefits of Sustainable Streets* concluded that the economic impact of incorporating bicycle facilities as part of the roadway infrastructure increased revenue by 49 percent, compared to 3 percent citywide.

CONTEXT

The Concept Plan takes into account the improvements and anticipated changes in the surrounding area. It complements other projects underway, such as the Observer Highway “Complete Street” resurfacing project. It was developed with the City’s plans for green infrastructure, improved stormwater management and resiliency, bicycle circulation, parking, and “Smart” Street innovations, among others.

A “Great Street” gets even better!



WASHINGTON STREET “COMPLETE STREET” REDESIGN

THE PROCESS

A thorough and extensive inventory of existing conditions was conducted. Based on findings, two alternatives and recommended common design elements were developed for intensive review by the City, stakeholders, and the public. The final conceptual design was crafted based on a thorough vetting of feasible approaches. Extensive outreach was conducted at each stage of the project. Three public meetings were held, along with surveys to gather comments about the vision, alternatives and final design. Many targeted interviews and meetings were held, including coordination meetings with City staff, utilities, and other stakeholders.

THE CONCEPT PLAN

The Washington Street “Complete Street” Redesign proposes state-of-the-art transportation elements to improve traffic circulation and safety, including traffic signals, crosswalks, protected bike lanes, designated parking and loading spaces. The design also proposes streetscape improvements. This includes elements such as sidewalks, benches, bike racks bus shelters, trash receptacles, trees and tree pits and street lights. These improvements are designed to expand and provide new amenities for the comfort and convenience of all roadway users, while coordinating all components to achieve a coherent and consistent overall aesthetic.

The addition of protected bicycle lanes (PBL) and curb extensions are the most obvious changes to Washington Street’s infrastructure.

Concept Plan Assumptions

- Costs are a consideration. For example, existing elements in acceptable condition and as appropriate will be refurbished rather than replaced.
- Curbside and angled parking are retained.
- All facilities and streetscape elements comply with current federal and state standards.

Bike Facilities Configuration

- A two-way protected bicycle lane (PBL) on the east side of Washington Street extends from Observer Highway to 8th Street.

Achieves...

- Improved Road Operations & Traffic Flow**
 - Roadway resurfacing
 - Designated commercial loading zones
 - Short-term parking
 - Numbered parking spaces
 - New traffic signals and timing
 - Simpler parking maneuvers
- Improved Pedestrian Safety & Lighting**
 - State of the art signal design
 - Pedestrian countdown signal heads
 - Improved lighting
 - Concrete curb extensions at corners
 - High visibility crosswalks
 - Reconstructed curb ramps
- Improved Aesthetics, Livability & Economic Vitality**
 - New concrete sidewalks
 - New light poles and fixtures
 - New benches and furnishings
 - City-wide wayfinding signage
- Increased Mobility & Transit Access**
 - New bus stop design with efficient shelters
 - Protected bicycle lanes
 - New custom-designed bicycle racks
- Improved Environmental Performance**
 - Healthy and attractive street trees
 - Improved tree pit design
 - Green infrastructure to capture stormwater runoff

WASHINGTON STREET "COMPLETE STREET" REDESIGN

Location Map

Typical Downtown Cross Section

Typical Uptown Cross Section

All of Washington Street will have ...

Upgraded Traffic Signals with Pedestrian Countdown Signal Heads

Curb Extensions

New & Refurbished Street Furniture, Lighting & Wayfinding

Skid-resistant, Retroreflective Crosswalks

Dedicated Bicycle Facilities & Parking

Commercial Loading Zones & Parking

"Portal" Style Bus Shelters

Green Elements & Infrastructure

- A one-way northbound PBL extends from 8th Street to 15th Street.
- Southbound bicyclists from 7th Street to 16th Street will share the lane with vehicles.
- There is dedicated space for bicyclists to transition from the two-way to the one-way protected bicycle lane

Curb Extensions

- Curb extensions will reduce intersection crossing distances from 50' to 26'.
- Additional space from the addition of curb extensions will accommodate benches, bike racks, rain gardens, and other amenities.

NEXT STEPS

The Concept Plan represents the first step in the process of redesigning Washington Street. The entire project is estimated to cost \$14 million. The Concept Plan will advance to design, engineering, and implementation. Implementation will take place in phases based on the availability of funding and opportunities to move forward in conjunction with related projects.

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OVERVIEW

INTRODUCTION

This report presents the final Design Concept Plan for the “Complete Street” Redesign of Washington Street. It describes design elements as well as phasing and cost estimates to guide future project development phases, beginning with preliminary design and engineering.

In 2010, Washington Street was designated one of the top 10 “Great Streets” by the American Planning Association. Urban “Great Streets” put people first. They effectively balance the various roles they serve -- commerce, congregation, access, and mobility -- and ultimately become magnetic places that define their cities and towns.

The primary objectives of the “Complete Street” Redesign of Washington Street are to address safety, better accommodate increasing multi-modal activity and increase revenue for businesses. Washington Street serves as a vibrant commercial “Main Street.” It is heavily trafficked with high pedestrian volumes and movement. The Concept Plan addresses pedestrian infrastructure and operational deficiencies to reduce the potential for conflicts and improve conditions to create a safer environment for pedestrians.

The “Complete Street” Redesign of Washington Street advances and puts into practice the City’s “Complete Streets” policy adopted in 2010. The final conceptual design selected by the City of Hoboken was developed with “Complete Streets” as a core guiding principle. It achieves efficiency in the use of available space on the roadway to accommodate the varied transportation interests of pedestrians, bicyclists, transit users, and motor vehicle operators.

Supporting and enhancing Washington Street’s economic vitality was a key criterion considered throughout the



Bird's Eye Perspective of Washington Street

development of the conceptual design. This was strongly reinforced by stakeholders during outreach activities. The vision for Washington Street states that, **“Washington Street will be an economic engine that supports local business and attracts visitors and residents.”** The “Complete Street” Redesign of Washington Street presents an opportunity to achieve the economic potential associated with improved bicycle accessibility and other “Complete Streets” principles, as substantiated through recent studies. In the 2013 study *Economic Benefits of Sustainable Streets*, the New York City Department of Transportation cites survey findings of a **49% increase in retail sales on 9th Avenue versus a 3% increase in all of New York City -- after the installation of bike lanes and trees.** Other outcomes include higher retail and office rents and increased property values. “Better streets mean better business,” according to this study.

Another important objective in the “Complete Street” Redesign of Washington Street is to rehabilitate the existing infrastructure, building on the street’s assets. The conceptual design has been developed to preserve the character and charm of an outstanding historical venue while:

- introducing measures to improve pedestrian safety, bicycle accommodation, and traffic flow;
- refreshing, reconfiguring, and replacing the street furnishings as necessary;
- providing additional or improved amenities;
- defining and reinforcing a unique identity through a consistently applied aesthetic; and
- incorporating strategic green infrastructure measures to improve the treatment of stormwater runoff from the sidewalks and roadway.

The conceptual design was developed in response to the extensive input from a wide range of stakeholders, from the City’s elected officials and staff to the general public. This outreach began early in the project and included many meetings, interviews, workshops, and surveys.

Although Washington Street’s historical character is at the heart of its unique charm, its existing design elements evolved before current prevailing standards. All facilities and streetscape elements proposed in the conceptual design comply with current federal and state standards and would bring Washington Street up-to-date with the New Jersey Department of Transportation Roadway Design Manual, the Federal Highway Administration’s Manual on Uniform Traffic Control Devices (MUTCD), the design guides by the American Association of State Highway and Transportation Officials (AASHTO), the Americans with Disabilities Act Guidelines for Public Rights of Way (PROWAG) and design guidelines from the National Association of City Transportation Officials (NACTO).

The conceptual design is based on analysis of physical conditions, best practices, and the design team’s professional judgment. In addition, experts representing NACTO participated in the review process.

The final conceptual design evolved through a process and analysis that is documented in preceding technical reports, which are supplemental to the Conceptual Design Plans:

- *Existing Conditions Report*, March 19, 2014 -- detailed descriptions of the project area; outreach activities; existing site features (furnishings, pavement, vegetation, lighting, signage, etc.); parking and loading facilities and operations; circulation patterns of pedestrians, bicycles, automobiles, and public transit; and utilities

- *Parking and Traffic Technical Report*, March 31, 2014 -- detailed analysis of parking and traffic and suggested improvements for consideration in conceptual design
- *“Complete Street” Redesign of Washington Street Design Alternatives Exhibit*, May 6, 2014 -- public display boards conveying key design alternatives and roadway configurations for consideration along Washington Street
- *Concept Alternatives Analysis Summary*, May 19, 2014 -- a companion to the design alternatives exhibit (May 6, 2014) that compares and contrasts design concept alternatives as an aid to City decision makers.

CONCEPT DETAILS

Traffic Signals

Crosswalks

Protected Bicycle Lanes

Sidewalk Elements

- Sidewalks
- Benches
- Bicycle Parking
- Bus Shelters
- Trash Receptacles
- Tree Pits
- Street Lights
- Curb Extensions

Parking & Loading

Green Infrastructure for Stormwater Management

REPORT ORGANIZATION

This report presents the Concept Plan and is intended as a guide for the decision makers who will advance the Washington Street redesign through the phases of implementation. The Concept Plan illustrates the roadway and streetscape design and is supplemented with design drawings and notes.

The conceptual design anticipates an incremental updating of Washington Street sidewalks, landscape, street furnishings, streetlights, crosswalks, as well as bus boarding operations, vehicular traffic/bicycle/pedestrian signals, and stormwater management. Design guidance is especially critical when design elements are advanced and implemented separately over time.

Chapter 1 “*Overview*” describes the project goals and objectives, and includes examples of other “Great Streets.”

Chapter 2 “*Conceptual Design Plans*” presents both typical block and intersection designs as well as atypical designs at specific locations.

Chapter 3 “*Concept Design Details*” describes Concept Details and explains key adjacencies, clearances and dimensional specifications to inform future development phases.

Chapter 4 “*Wayfinding*” describes the wayfinding program development process and the existing wayfinding context, includes a sign inventory and “Journey Map,” and proposes wayfinding sign locations and messages.

Chapter 5 “*Phasing and Cost Estimate*” is intended as a guide to assist the City in decisions based on funding and development opportunities.

The series of Concept Design Details supplement the Concept Plans and catalog the “family” of recommended materials,

street furnishings, landscape features, and bicycle facilities. The Concept Details illustrate the purpose and appearance of each feature. The Concept Details explain key adjacencies, clearances and dimensional specifications for streetscape elements within the sidewalk cross-section from curb-to-building, and also describe proposed variations between the blocks that have mostly shop fronts/cafés and those that have mostly residential brownstones.

The Appendix includes supplemental information:

- Angle-Parking Study
- Turning Templates
- Pavement Coring Summary
- Public Outreach
- Existing Street Furnishings Inventory

OVERVIEW

Comparative “Great Streets”

As part of the planning process, the design team reviewed international examples of Complete Streets that illustrate strategies effectively applied elsewhere. These can both inspire and become resources for design ideas during project development.

“Great Streets” balance the various roles they serve for residents and visitors, achieving an appropriate interface of homes and shops with the streets they frame. “Great Streets” accommodate the movement of multiple modes of travel and the moments where people pause amid the bustle through the design of bus stops, parking areas, bike racks, benches, café tables, and more.

The priority of each “Great Street” varies. The final conceptual design for Washington Street reinforces the priorities identified and refined through the community planning process and “fits” both the physical characteristics of the site and the larger regional context.

1. An avenue in Copenhagen, Denmark, includes a sidewalk, bicycle parking and furnishings, a bicycle sidepath, a planting strip, on-street parking, and vehicular traffic.

Hoboken’s uptick in cycling, together with the recently installed bicycling and walking infrastructure across the Hudson River in New York City, reinforces the value of adding bicycle facilities and amenities.



2. Norrebrogade, another mixed-use street in Copenhagen, Denmark, integrates bus transit by replacing the planting strip with station amenities, separated from the sidewalk by a bicycle sidepath.

Washington Street carries several bus routes. Convenient integration of transit access through design is an important component of the Complete Streets approach.



3. Sidewalks on Ann Arbor, Michigan’s Main Street are filled with café tables of local restaurants. Passersby walk through these outdoor dining rooms, which are separated from the roadway by formally spacing street lights and trees in robust planters.

Hoboken is increasingly known for its restaurant scene, and thoughtful placement of café seating on the sidewalk can serve to amplify the City’s street life.



4. This shopping street in Dongshankou, Guangdong, China shares use by pedestrians and vehicles, only loosely differentiating spaces with subtle changes in pavement.

This example demonstrates the opportunity presented by “shared space,” although Washington Street’s high traffic volume and limited space does not make it an ideal candidate. Introducing dedicated bicycle facilities as part of the conceptual design is a preferred approach.



5. Bahnhofstrasse, a retail street in Zurich, Switzerland, prioritizes access to the retail business district and the efficiency of transit. Sidewalk trees partition the sidewalk to separate bus boarding and pedestrians.

Washington Street is a transit-oriented street. The conceptual design improves access to transit by pedestrians, improves transit amenities such as bus shelters, and improves access to boarding areas.

6. Houston's Main Street is an example of a car-oriented American City investing and prioritizing transit service. Boarding in the center of the street separates boarding from the sidewalk and allows for faster and more reliable transit service.



The conceptual design of Washington Street improves transit efficiency by making stops more accessible to buses.

7. Chestnut Street in Philadelphia, once a transit mall, has returned to permitting vehicular travel and on-street parking, but maintains an exclusive lane shared by buses and bicycles. Trees, furnishings, and signage form a strong edge to the sidewalk.



Washington and Chestnut Streets offer a similar retail experience, although Chestnut Street accommodates a much higher intensity of development than Washington Street, in part, because of the priority given to transit.

8. New shelters on the transit mall in Portland, Oregon, replacing the more enclosed version from the 70s, have begun serving as a model for sidewalk-friendly options for many cities.



Following this example, the conceptual design proposes replacing the current enclosed bus shelters with a more open "portal" style, in order to improve boarding and provide shelter for passengers, while limiting sidewalk obstruction.

OVERVIEW

Complete, Green & Smart Streets

COMPLETE STREETS

The intent of the City of Hoboken in embarking on this planning effort is to create a “Complete Street” that enhances and improves safety, comfort, enjoyment, and function for all users. The Conceptual Design achieves efficiency in the use of the available physical space while accommodating the competing interests of pedestrians, bicyclists, transit users, and vehicular traffic. Vehicular uses include parking and loading, which are critical to businesses, their customers, visitors, and residents. In addition, businesses need physical space for purposes such as sidewalk advertising and outdoor seating for dining. Bicyclists require parking facilities. Pedestrian-friendly environments include places for resting. Transit users require places to wait and queue for buses. The Concept Plan takes these needs into account and the result is a more Complete Street.



Example of a “Complete Street”
Route 440 Boulevard Concept Plan by The RBA Group

The Conceptual Design was developed with consideration of the context and with sensitivity to existing character, design elements, destinations, and uses. It also improves connections to neighborhoods and attractions, resulting in a more “Walkable City” – a priority expressed during the public outreach process.

GREEN STREETS

The redesign takes into consideration opportunities to apply “Green Streets” strategies to better address ecological values and contribute to the City’s citywide green infrastructure objectives. The Concept Plan proposes green infrastructure and low impact development strategies (i.e. shade trees, rain garden curb extensions, porous asphalt, etc.) to reduce stormwater run-off, urbanized flooding and the urban heat island effect as well as to improve the ecological value of the corridor.



Example of a “Complete Street”
Route 440 Boulevard Cross Section by The RBA Group



Philadelphia Green Streets Program
Source: Philadelphia Water Department

SMART STREETS

The development and use of digital technologies that introduce new amenities and functionality to the transportation infrastructure is rapidly evolving. Some of these technological innovations are currently available and implemented in cities nationally and internationally, while many others are still in conceptual and testing phases. The City of Hoboken is forward-looking in its current investigation of opportunities to apply digital technologies, reinforcing its reputation as an innovator at the leading edge of technology while still respecting its historical character. For example, Stevens Institute and the City of Hoboken are partnering to create a “Smart City” application to assist the public in finding available parking spots, make more efficient energy choices, monitor air and noise pollution in different parts of the city, receive information



BigBelly® trash receptacle
(Image by BigBelly® Solar.)



City Information System, Southampton
(Image by City-ID)



Transit & Amenities E-Kiosk, Seattle
(Image by The Fearey Group)

about emergencies, and link with Hoboken’s 311 constituent request system to report issues and problems. A community-driven effort to provide the public with a free wi-fi network using “MileMesh” is also under investigation.

The Concept Plan suggests opportunities to incorporate “Smart Street” elements that are compatible with Hoboken’s citywide effort to install advanced, smart grid technologies with renewable generation and storage resources as a way to improve the reliability, security, and resiliency of the electric grid. Smart Street strategies include installing wireless and innovative technologies that can improve safety and user

experience along Washington Street and potentially reduce operating and maintenance costs. These opportunities are recognized and recommended in *Chapter 2, “Concept Design Details.”*

Some of these new technologies with the potential for future integration into the redesign of Washington Street are described in the table below:

Potential “Smart Street” Technologies

TECHNOLOGY	DESCRIPTION
Smart Parking	Using sensor technology to adjust parking prices based on demand, inform drivers of where vacant spots are, alert parking enforcement of violations, prevent meter feeding
Digital Tags and Information Panels	Integrated with street furniture and building facades enable wayfinding, community bulletin boards, trip planning, and place-based social networking.
Bus Lanes and Transit Prioritization	Improve the reliability of routes with high passenger volumes. Shelters with amenities and next bus information improve convenience for passengers.
Solar-powered charging stations	Public phone charging systems
Solar-powered benches	Mobile charging and monitor air quality and sound levels
Electric vehicle charging stations	Supports the adoption of a new generation of clean-fuel vehicles. Linked to smart electric grids that use alternative energy sources such as solar and wind, they will help reduce dependence on fossil fuels and combat climate change
Automated bicyclist and pedestrian counters	Assist with performance measures
Intelligent Signals and Traffic Cameras	Manages traffic flow in real-time. They facilitate vehicle progression and reduce wait times, improving fuel efficiency and reducing GHG emissions

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CONCEPTUAL DESIGN PLANS

INTRODUCTION

This chapter presents a Conceptual Design Plan that illustrates the proposed geometry, configuration, and dimensions of the “Complete Street” Redesign of Washington Street. The design is presented in a series of drawings that include cross sections, plan views, and renderings.

Pages 12 - 17 illustrate the typical design of Washington Street, which differs between downtown (Observer Highway - 8th Street) and uptown (8th Street - 15th Street). Following that, specific design interventions are drafted on pages 18 - 23 to address the atypical blocks and intersections along Washington Street. Rounding out the chapter is a curb extension typology: a series of drawings offering design solutions for the concrete curb extensions and bus stops proposed along Washington Street.

Chapter 3 “Conceptual Design Details” further describes design elements, rationales, and guidance to aid designers, engineers, and decision-makers as they advance the conceptual design to implementation.

METHOD

As a progression of effort toward the final Conceptual Design Plan for Washington Street, many design alternatives were posited, analyzed, and evaluated. Design ideas were categorically assembled for pedestrian crossings, transit circulation, traffic signals, lighting, parking, loading, bicycle facilities, and green infrastructure and refined within the context of City guidance, public input, physical, and fiscal parameters. The process was iterative, collaborative, and open to public evaluation.

National experts representing the National Association of City Transportation Officials (“NACTO”) participated in reviewing the concept alternatives. All facilities and streetscape elements

presented comply with current federal and state standards and will bring Washington Street up-to-date with national and state design standards and guidelines.

Exhibits outlining the approaches, recommendations, and options were presented to City representatives and to the public. These provided specific details regarding design features, choices, and costs for elements and options. The final conceptual design was selected and refined in response to comments, priorities, and feasibility.

ASSUMPTIONS

The Conceptual Design was developed to comply with several defining assumptions:

- **The curb line is to remain in place.**

Total reconstruction of the public right-of-way that would require moving the curb would be prohibitively expensive and unfeasible. Existing curbs are to remain in place. Any new facilities or amenities added to Washington Street are to function within the constraints of the existing curb alignment.

- **Curbside and angled parking is to be retained.**

Proposed curb extensions would impact the number of parking spaces only to the extent required to maintain clear visibility for the safety of pedestrians at intersections. Commercial loading zones will be provided directly on Washington Street within the existing parallel parking spaces and designated for specific times of day.

- **Costs are a consideration.**

Where possible, less expensive strategies are proposed. For example, light fixtures are to be refurbished upon existing foundations. It is also recognized that the City has already selected some new elements, such as the “Big Belly” trash receptacles.

- **All facilities and streetscape elements presented are to comply with current federal and state standards.**

The proposed concept is designed to bring Washington Street up to date with the N.J. Department of Transportation’s Roadway Design Manual and consistent with the design guidelines of the National Association of City Transportation Officials (“NACTO”) the American Association of State Highway and Transportation Officials (“AASHTO”) the Manual on Uniform Traffic Control Devices (“MUTCD”) and the Americans with Disabilities Act Guidelines for Public Rights of Way (“PROWAG”).

DESIGN CONCEPT

The dominant dimension of Washington Street is fixed: 100’ from building face to building face is reserved as the public right-of-way. Within that 100’, Washington Street must function as a destination and a corridor. As a destination, Washington Street is a place where people shop, dine, access transit, and congregate. As a corridor, Washington Street is a passageway which must serve pedestrians, cyclists, and motorists equitably. When its dual role as destination and corridor is in balance, Washington Street can return measurable value to its visitors and inhabitants. That value comes in the form of economic return, safety, quality of environment and experience, convenience, and local pride.

The complex act of balancing Washington Street as destination and corridor can be simplified and discussed as an exercise in the allocation of space. In its existing condition, downtown Washington Street allocates 50' of its 100' to pedestrians and the remaining 50' to motor vehicles. Absent is the consideration of travel space for cyclists, who, by law can share the vehicular travel lane, but in practice find the prospect too dangerous. Likewise, in the existing condition uptown, Washington Street allocates 36' of 100' to pedestrians and the remaining 64' to motor vehicles. Extra space is provided to motor vehicles to accommodate angle parking and, once again, cyclists receive no allocation.

Through public input and City guidance, a design directive to preserve the existing curbs along Washington Street was recognized. This directive has fiscal roots (the reconstruction of curbs is a costly proposition) and serves as de facto approval of the existing allocation of pedestrian space along Washington Street.

Through observation and analysis of motor vehicle activity, the allocation of space to motor vehicles was found to be overly generous in the existing condition. Downtown, for instance, the 17' wide travel lanes seem to encourage illegal double parking. It seems obvious that public space used for illegal activity could be allocated in a more positive way. Therefore, the allocation of travel space for cyclists would logically develop from the excess of vehicular space.

By adding a protected bike lane, bicycle travel is brought into balance with pedestrian and motor vehicle travel. This enhances the value of Washington Street as a corridor to accommodate safe, efficient, and economical travel opportunities. It also enhances Washington Street as a destination by preserving the valued pedestrian space and increasing access to the local businesses.

In summary, this conceptual design efficiently allocates available space to safely accommodate pedestrians, bicyclists, transit users, and vehicular travel. Accommodations and features are designed to improve pedestrian safety, bicycle mobility, and traffic flow. Sidewalk, parking, loading, and transit use areas are substantially retained along with the locations of sidewalk elements (bus stops, street trees, lighting, etc.) with minor alterations to eliminate encroachments on the pedestrian travel way.

DESIGN CONCEPT HIGHLIGHTS

Although the addition of a protected bike lane to Washington Street seems to be the most visually apparent change, the Conceptual Design plan features many additional features, applications, and assumptions. It is worth summarizing them as follows in order to prepare for a good understanding of the drawings in this chapter.

- **Traffic signals** will be replaced at all intersections along Washington Street. Signal heads will be positioned to visually accommodate motor vehicles (over the roadway) and cyclists (over the protected bike lane). Countdown signal heads for pedestrians will be visible to pedestrians wishing to cross the street.
- **Crosswalks** will be replaced at all intersections along Washington Street. Existing brick paver surfaces will be removed, repaved as asphalt, and 10' wide crosswalks will be striped in white retroreflective thermoplastic.
- The Washington Street **protected bike lane** will connect to the protected bike lane planned along Observer Highway, to existing bike lanes on 11th Street, and to a possible future bike lane on 15th Street.

- From Observer Highway to 8th Street, the Washington Street **protected bike lane** will accommodate northbound and southbound bicycle travel. At 8th Street, it will transition to northbound-only and continue to 15th Street.
- From 7th Street to 15th Street, southbound bicycle travel will be accommodated by **shared lane markings** in the southbound vehicular travel lane.
- **Bike boxes** are provided at intersections to facilitate eastbound and westbound turning movements by cyclists.
- All **shared lane markings** and **bike boxes** are to be striped in white over a green background.
- The protected bike lane will protect cyclists and pedestrians with a **raised concrete buffer**. The buffer will be 3-6" above asphalt grade and will be 4' wide south of 8th Street and 3' wide north of 8th Street.
- The **protected bike lane** will be green in color, with skid-resistant retroreflective surfacing, white outline, and yellow centerline striping.
- All **sidewalks** will be replaced with new concrete construction. The existing brick paver amenity strip will be removed and uniformly replaced with concrete.
- **Curb extensions** with a minimum length of 10' are to be constructed of concrete at grade with the sidewalk at all intersections (with the exception of Washington Street & Observer Highway).
- All **curb ramps** are to be reconstructed to ADA standard.
- All **roadway surface** will be resurfaced with asphalt.
- **Bus stops** will remain in their current locations but with a new design. Existing "hut style" bus shelters will be replaced

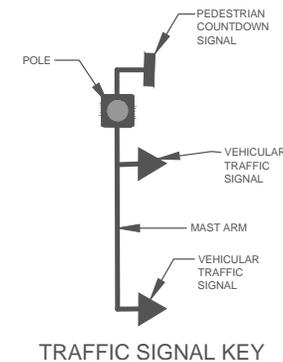
with “portal style” shelters.

- **Tree pits** are to be refurbished in place and expanded to 4' x 10' with iron tree guards to meet specifications of Hoboken Shade Tree Commission.
- **Street lights** are to be refurbished in place. Desired photometrics can be achieved by replacing light fixtures on existing foundations. For pole top lights, existing foundations and poles to remain; fixtures to be replaced with new LED. For arm mounted lights, existing foundations are to remain; poles and fixtures are to be replaced.
- **Parallel parking** south of 8th Street is to be striped and numbered.
- **Angled parking** north of 8th Street is to be reconfigured as back-in angled parking and numbered.
- Two commercial **loading zones** will be placed at opposite ends of each block on opposite sides of the roadway. Loading zones will be 44' long, which is the length of two parallel parking spaces. Loading zones will be reserved for commercial loading operations from 6 AM - 2 PM, with 30-minute metered public usage permissible at other times.

KEY

The following symbols appear throughout the Conceptual Design Plans.

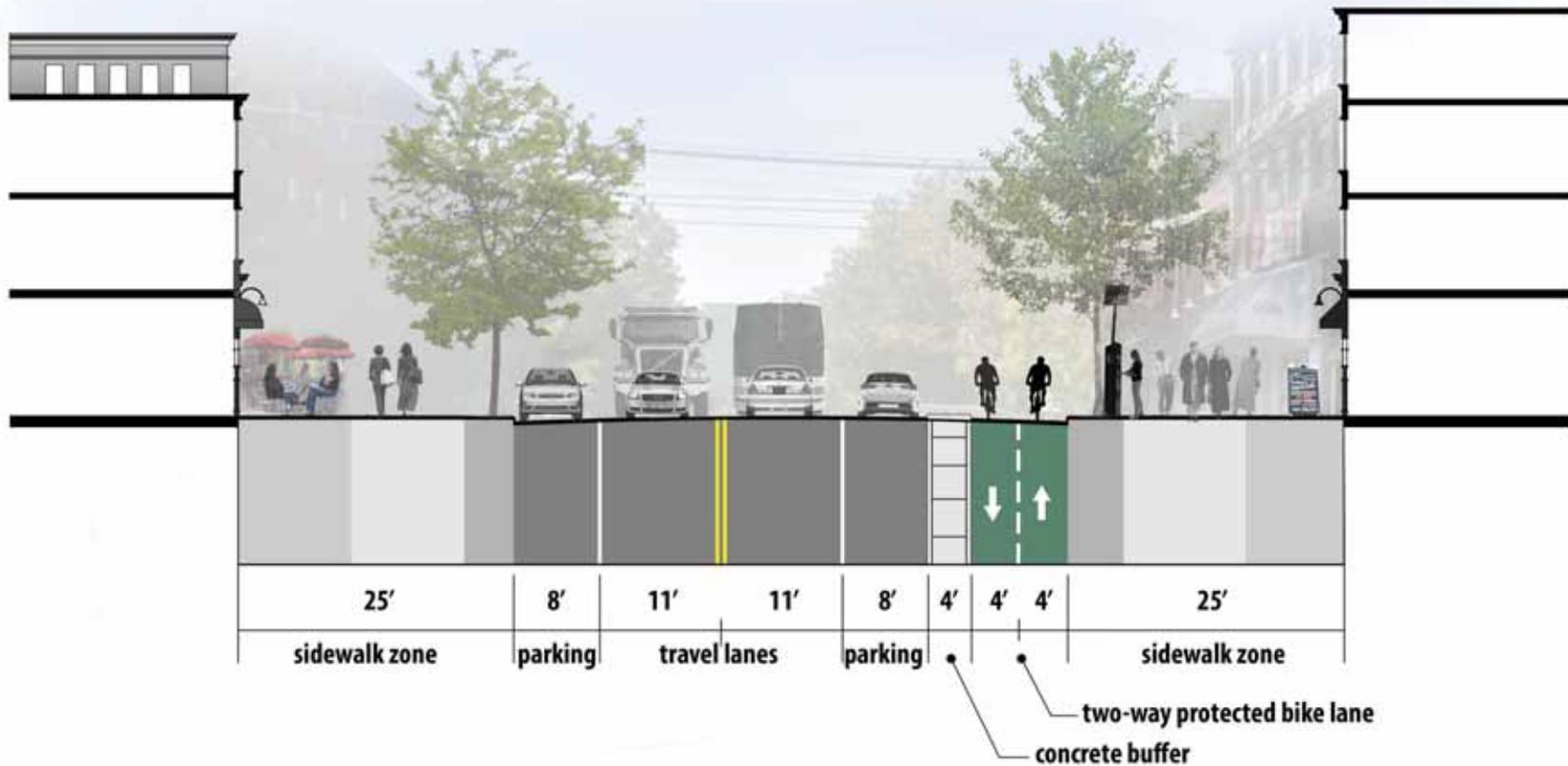
	Bench
	Trash can
	Movable table & chair
	Umbrella
	Curbside bike rack
	Bikeshare bike rack
	Safety railing
	Planting
	Pole top light
	Arm mounted light
	Traffic signal base
	Traffic signal head
	Pedestrian signal head
	Detectable warning surface
	Rumble strip
	Sign



CONCEPTUAL DESIGN PLANS

Typical Cross-Section: **Downtown**

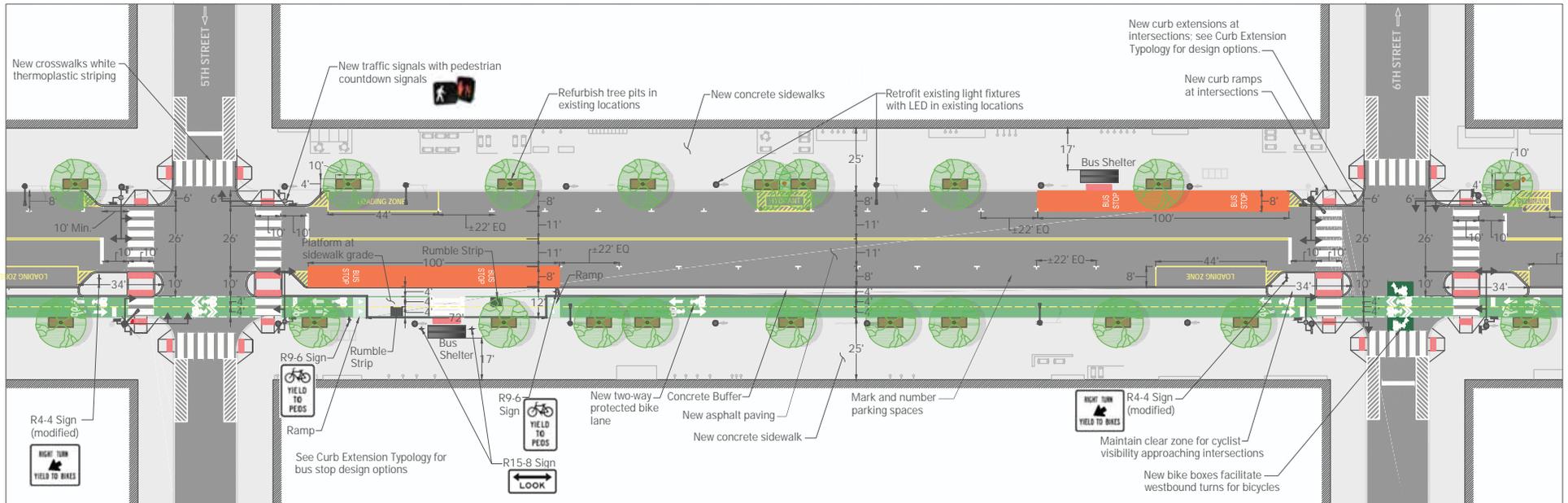
Observer Highway - 8th Street



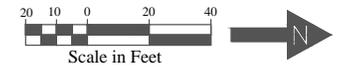
CONCEPTUAL DESIGN PLANS

Typical Block: Downtown

Observer Highway - 8th Street



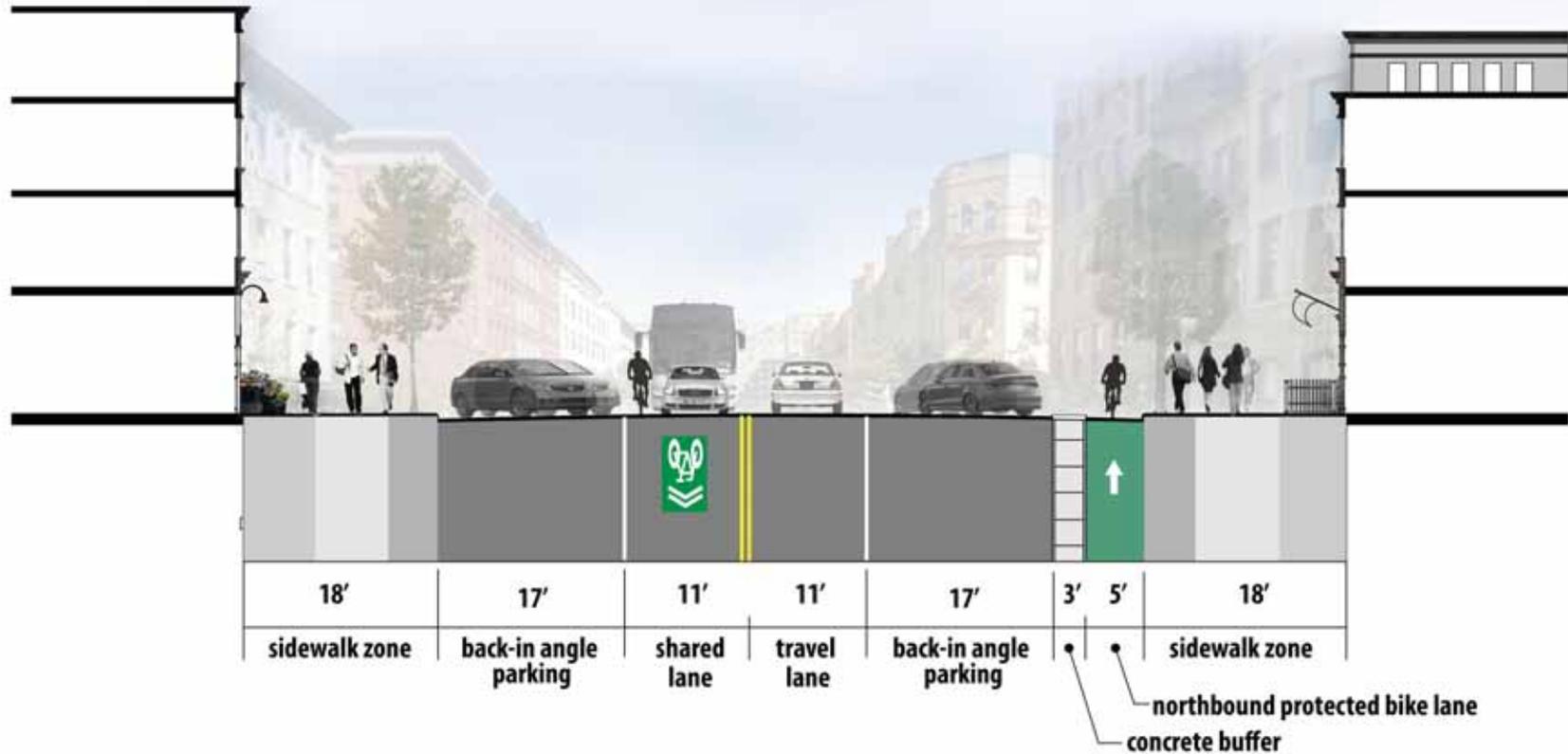
Notes: The Washington Street typical downtown block retains existing 25' sidewalks on both sides of the street. The existing 50' roadway is reallocated to accommodate two parallel parking lanes (8' each), two vehicular traffic lanes (11' each) and the two-way protected bike lane (4' northbound + 4' southbound + 4' concrete buffer).



CONCEPTUAL DESIGN PLANS

Typical Cross-Section: **Uptown**

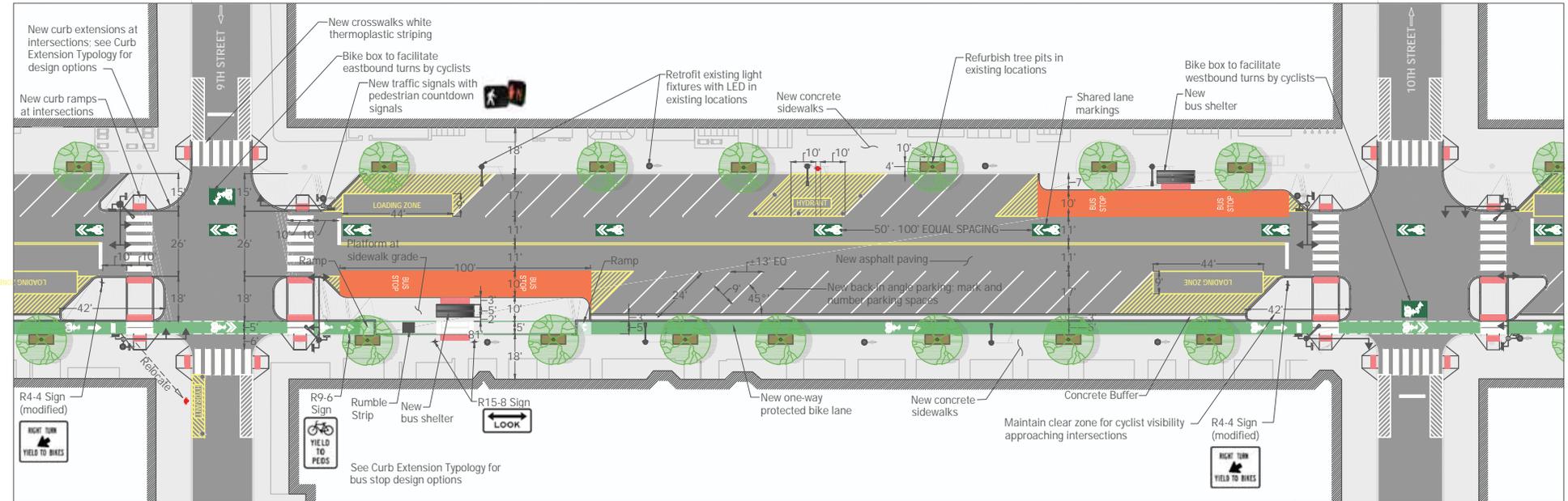
8th Street - 15th Street



CONCEPTUAL DESIGN PLANS

Typical Block: Uptown

8th Street - 15th Street

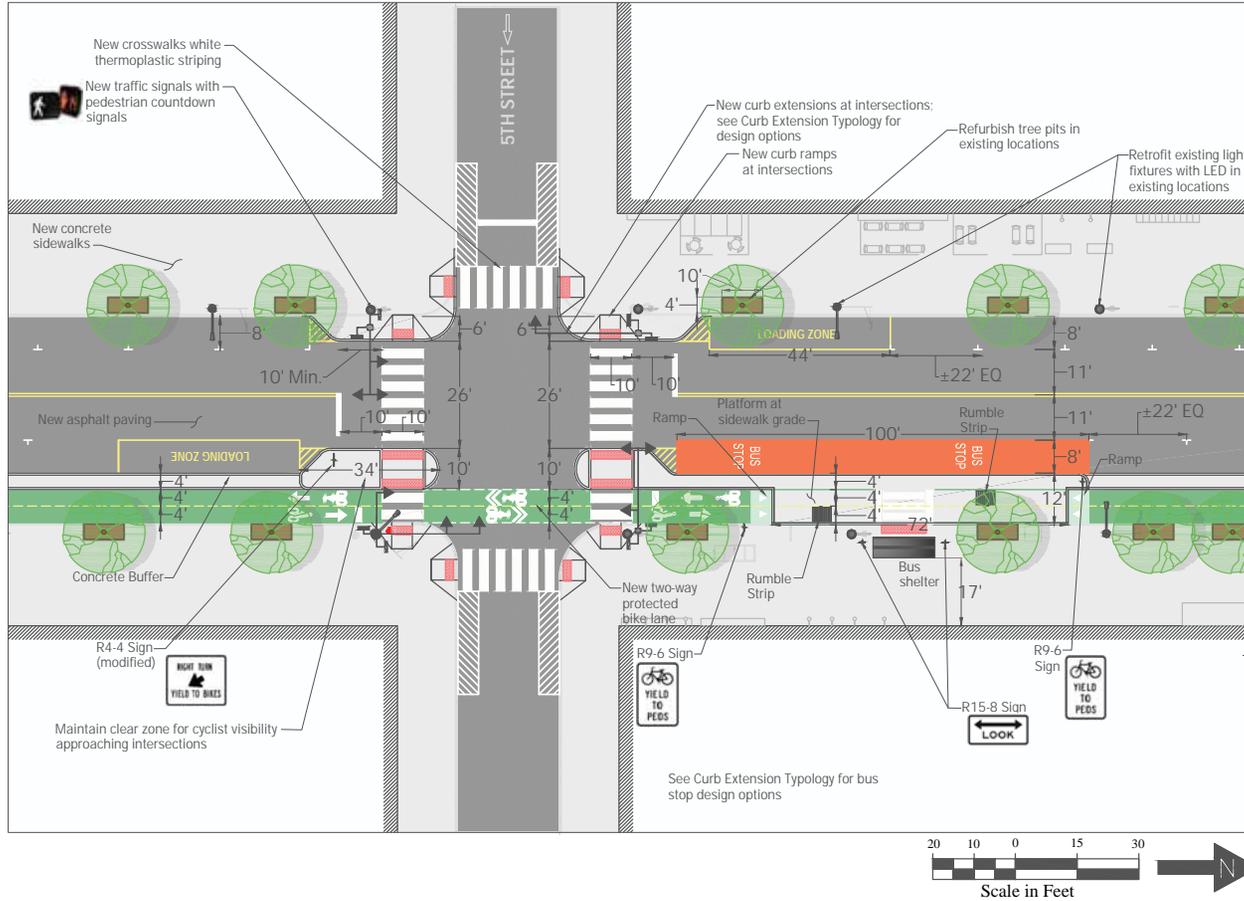


Notes: The Washington Street typical uptown block retains existing 18' sidewalks on both sides of the street. The existing 64' roadway is reallocated to accommodate back-in angled parking on both sides (17' offset from curb on each side), two vehicular traffic lanes (11' each), and a one-way protected northbound bike lane (5' lane + 3' concrete buffer). The southbound travel lane accommodates cyclists with shared lane markings.



CONCEPTUAL DESIGN PLANS

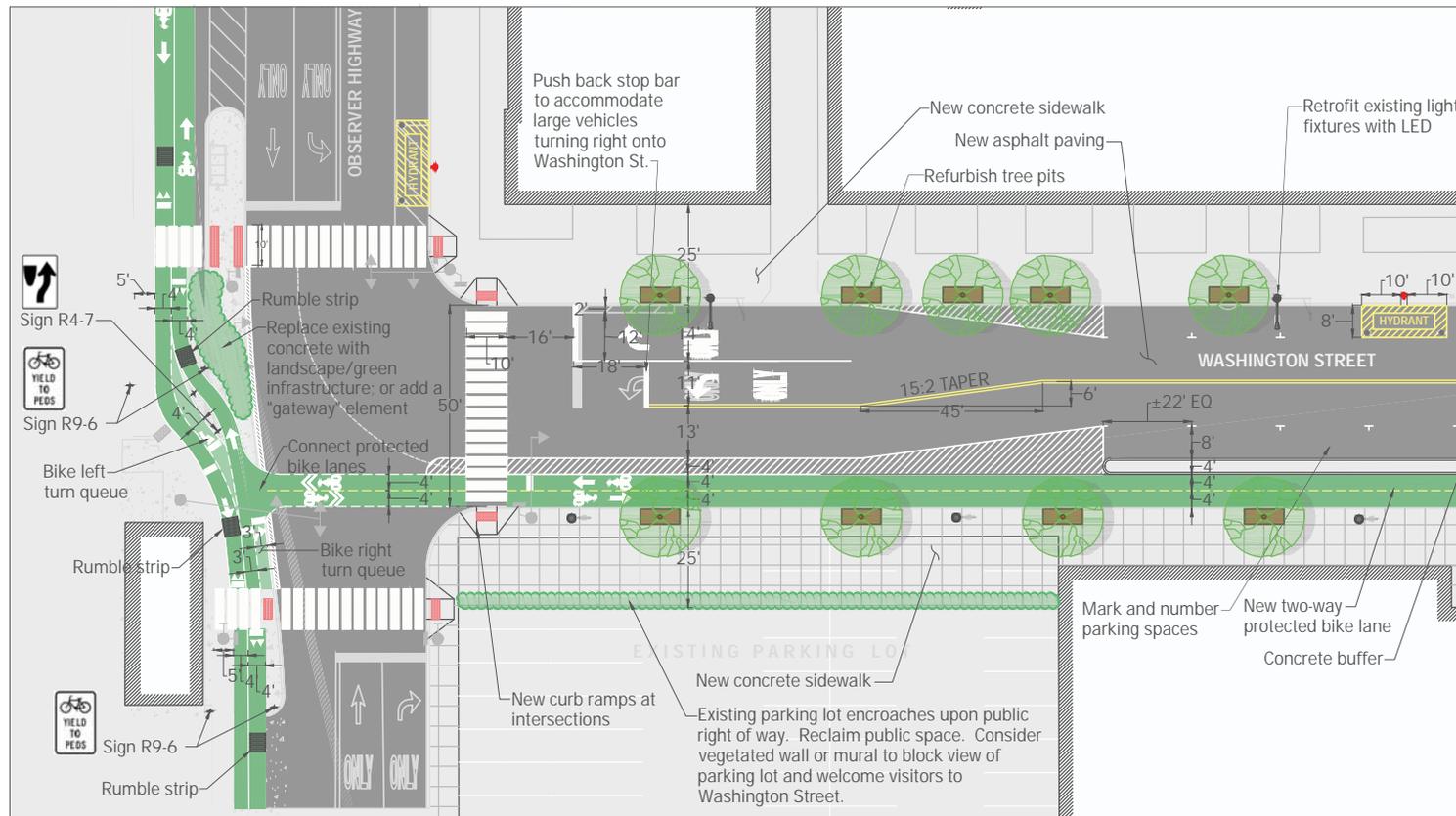
Typical Intersection: Eastbound One-Way



Notes: Curb extensions extend a minimum 10' from the crosswalk. Clear zones are striped 25' from the crosswalk on cross streets. Northeast and southeast pedestrian islands must remain free of visual obstruction above 30" in height to maintain a clear zone for cyclists approaching the intersection.

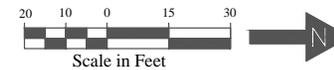
CONCEPTUAL DESIGN PLANS

Atypical Intersection: Observer Highway



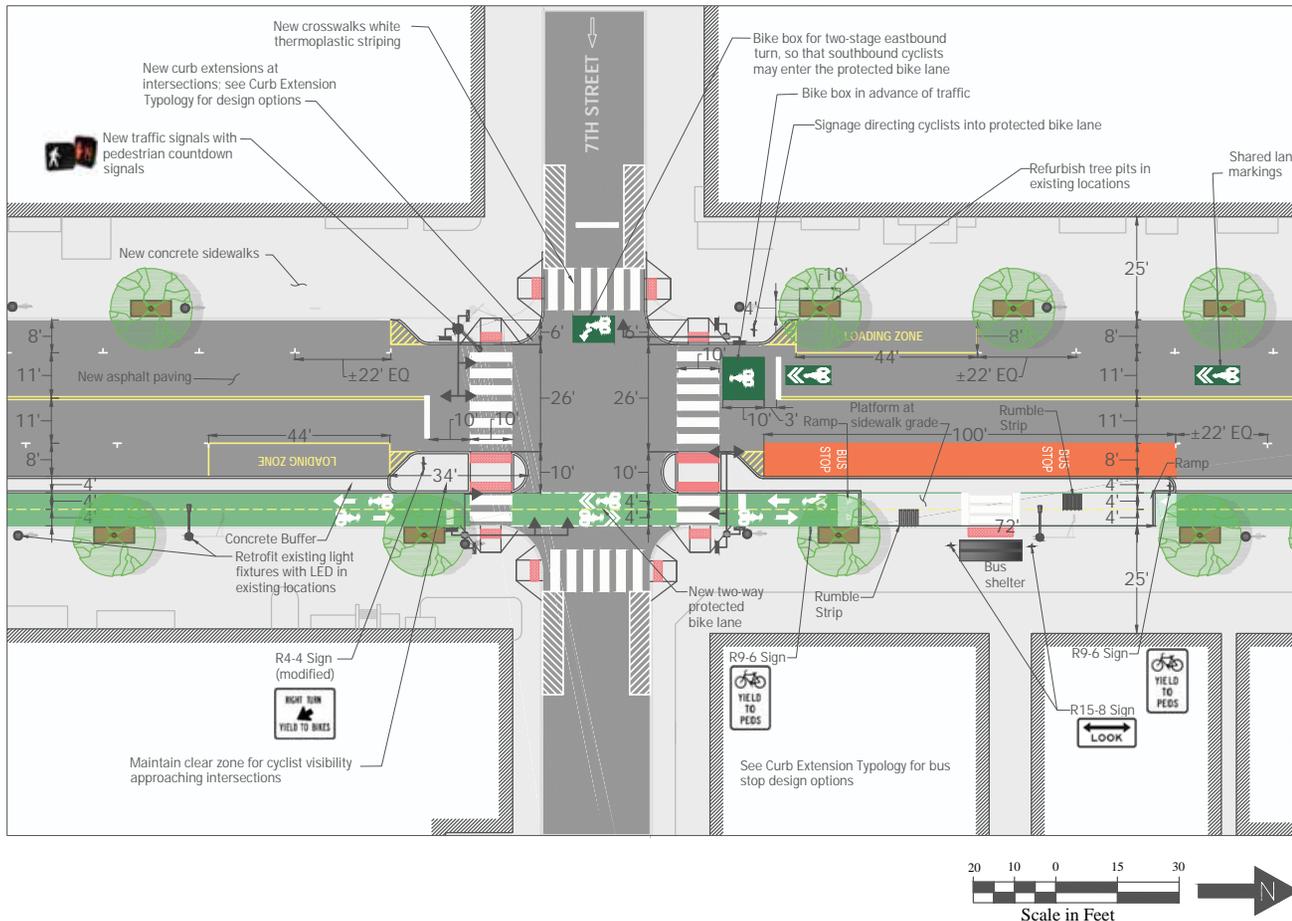
Notes: A connection is established between protected bike lanes on Washington Street and Observer Highway. The Observer Highway protected bike lane is reconfigured with queuing space for cyclists wishing to turn onto the Washington Street protected bike lane.

OBSERVER HIGHWAY PROTECTED BIKE LANE IS A COMPONENT OF THE APPROVED OBSERVER HIGHWAY RESURFACING PROJECT.



CONCEPTUAL DESIGN PLANS

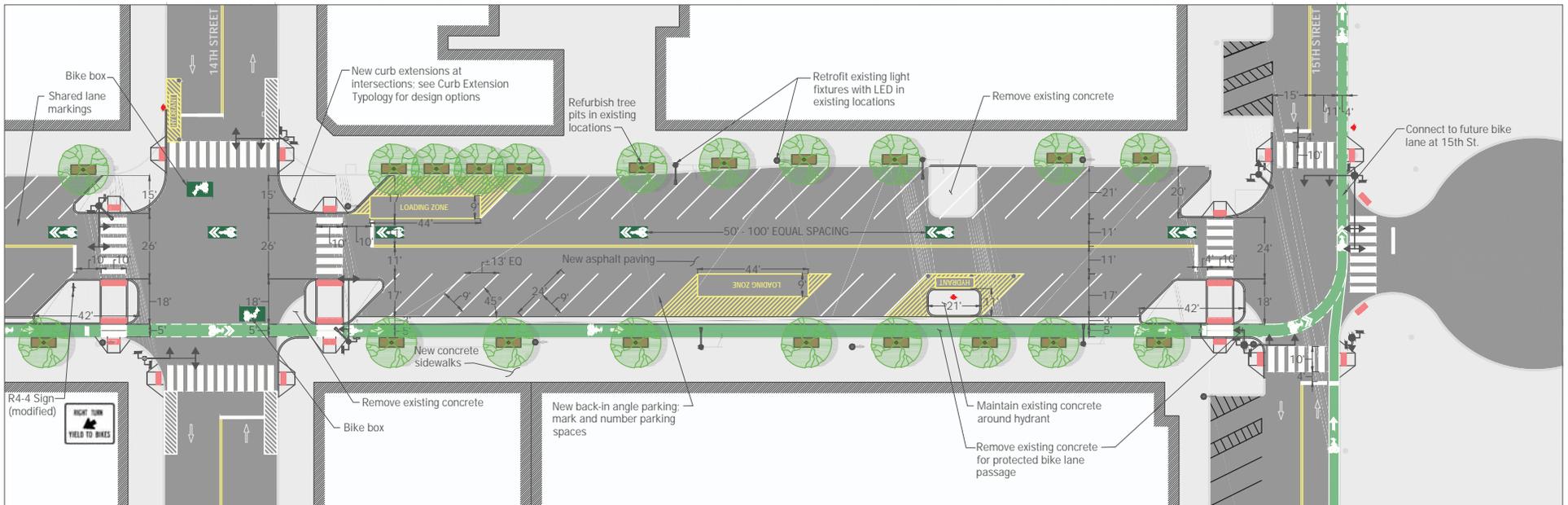
Atypical Intersection: 7th Street



Notes: Although 8th Street is where the protected bike lane transitions from two-way to one-way northbound, it is not the ideal location for southbound cyclists to enter the protected bike lane because the necessary eastbound turn would be against the one-way westbound traffic on 8th Street. On the other hand, 7th Street is one-way eastbound, so it is the best location for southbound cyclists utilizing the shared lane to cross Washington Street and enter the protected bike lane. Bike boxes are provided to facilitate the eastbound turn for cyclists. Shared lane markings must be continued through the 7th Street - 8th Street block in order to fulfill this access.

CONCEPTUAL DESIGN PLANS

Atypical Block: 14th – 15th Street



Notes: 14th Street is an atypical intersection accommodating eastbound and westbound traffic. Bike boxes are provided on Washington Street to accommodate cyclists wishing to turn either eastbound or westbound across Washington Street and are centered on the 14th Street travel lanes.

The loading zone on the east side of the street is positioned mid-block to provide better loading access to the 13th-14th Street block, which does not have a loading zone on the east side.

15th Street is an atypical intersection and the northern terminus of Washington Street. New traffic signals are proposed for the intersection to replace the existing all-way stop configuration. A westbound standard bike lane is envisioned along 15th Street, which can connect to the protected bike lane on Washington Street.

CONCEPTUAL DESIGN PLANS

Conceptual Design Rendering: Sidewalk Perspective Downtown



CONCEPTUAL DESIGN PLANS

Conceptual Design Rendering: Bird's Eye Perspective Downtown

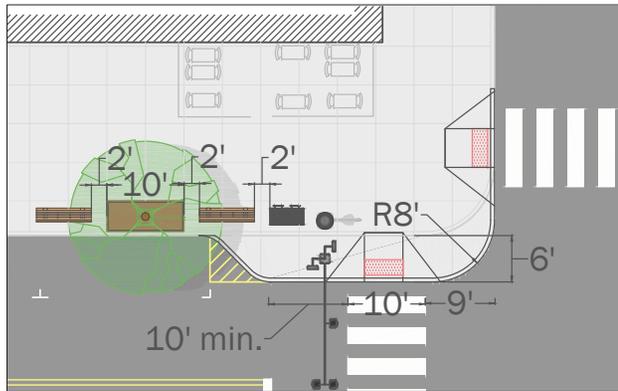


CONCEPTUAL DESIGN PLANS

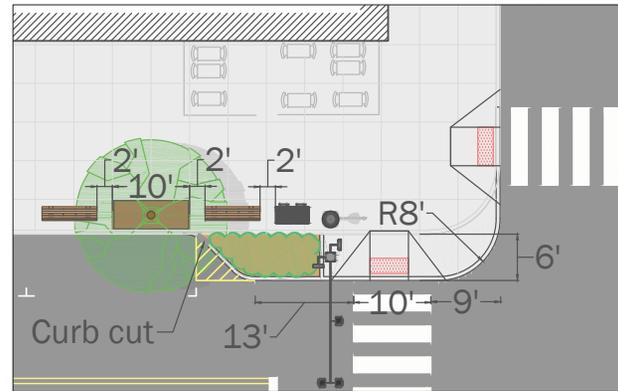
Curb Extension Typology: Downtown

West Corner Options

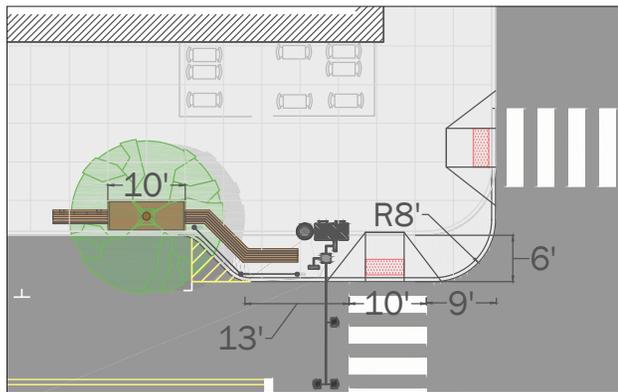
Standard



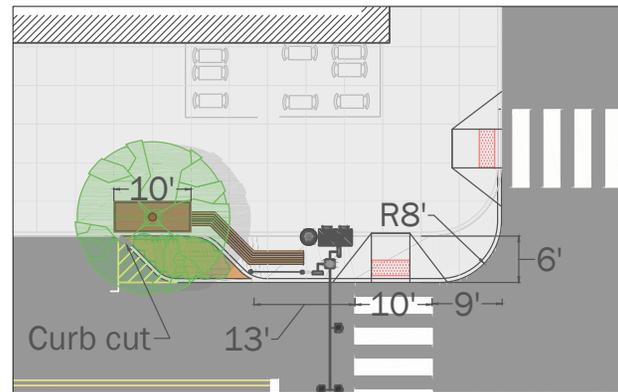
Green



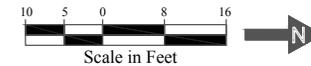
Enhanced Seating



Green + Enhanced Seating



Notes: The downtown southwest and northwest curb extensions are to extend a minimum of 10' from the edge of the crosswalk. Opportunities exist to integrate plantings and/or green infrastructure, enhanced bench seating, or both. To accommodate more amenities, the length of the curb extension can be extended beyond 10', though this may affect the availability of parking spaces. Standard proximities are provided for the arrangement of benches, trash receptacles, signal posts, and planters. Tree pits are to be refurbished in place. Street lights are also to be refurbished in place, however, it may be appropriate to construct new street light foundations if the existing location is awkward in relation to the design of a new curb extension.

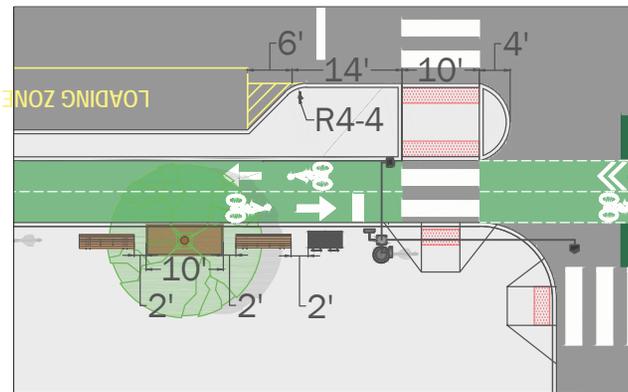


CONCEPTUAL DESIGN PLANS

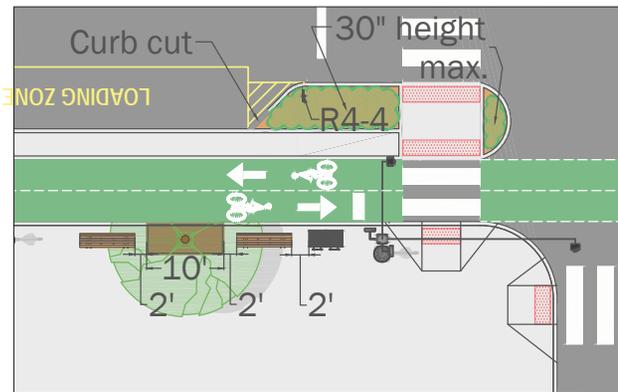
Curb Extension Typology: Downtown

East Corner Options

Standard



Green



Notes: The downtown southeast, downtown northeast, and uptown southeast curb extensions are to remain free of visual obstruction above 30" in height in order to preserve a clear zone for cyclists approaching the intersection in the protected bike lane. Only amenities less than 30" in height are appropriate for these spaces. Therefore, these curb extensions cannot include any enhanced seating or green infrastructure.

These curb extensions are to receive either a standard concrete treatment or a low landscape/green infrastructure treatment.

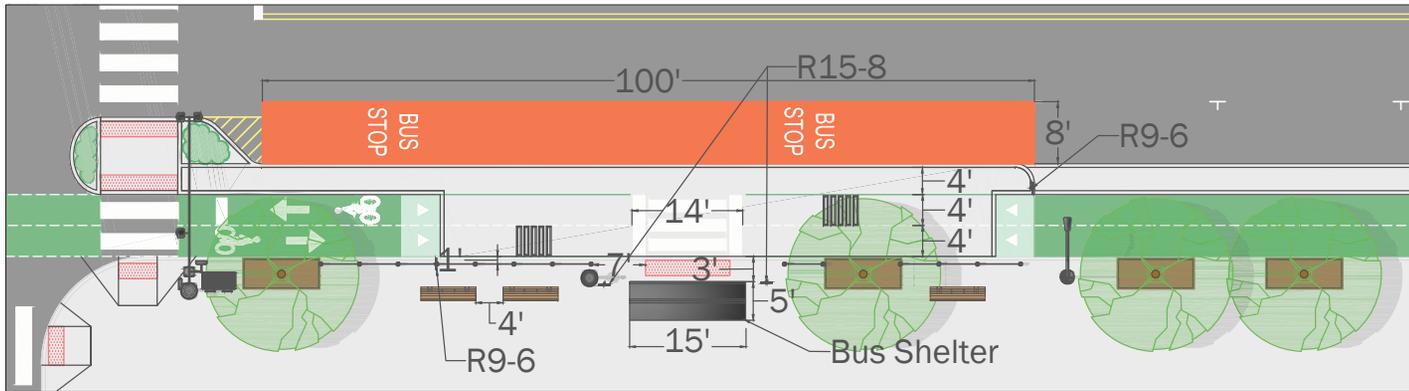


CONCEPTUAL DESIGN PLANS

Curb Extension Typology: Downtown

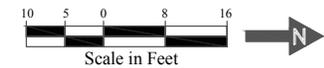
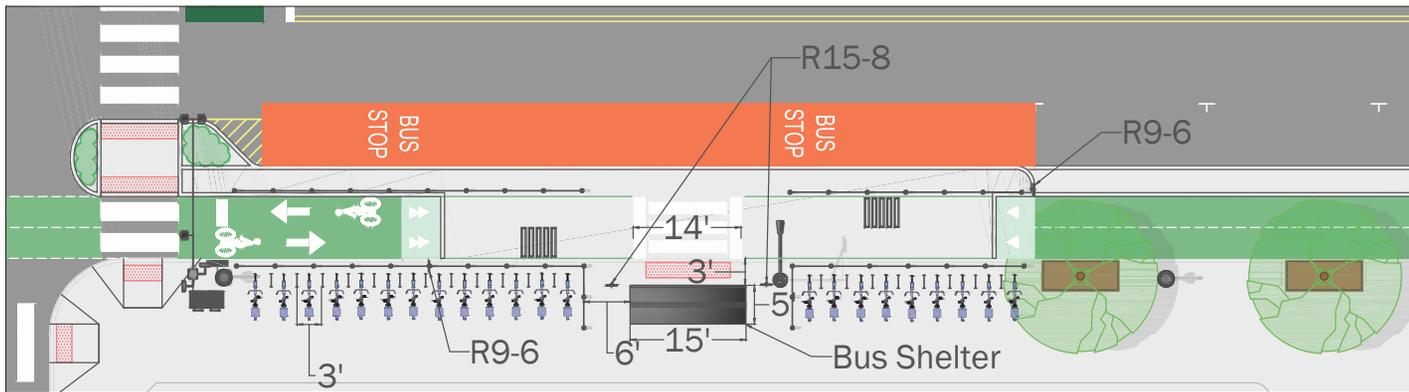
Northbound Bus Stops (East)

Enhanced Seating



Notes: Downtown northbound bus stops can conveniently provide amenities such as enhanced seating or bikeshare stations. The placement of bikeshare stations at bus stops provides a logical and practical link between two modes of transportation, with easy access to the protected bike lane.

Bikeshare

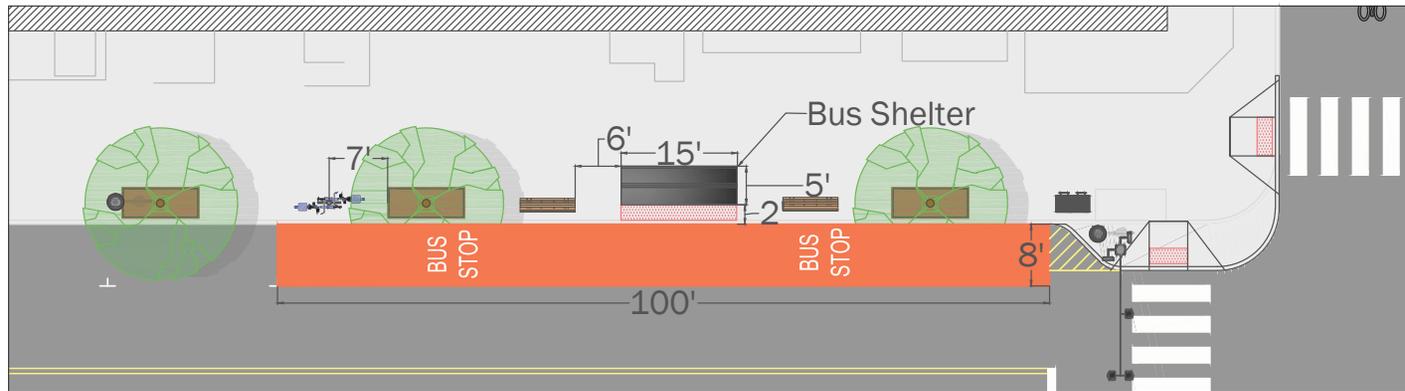


CONCEPTUAL DESIGN PLANS

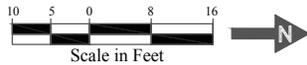
Curb Extension Typology: **Downtown**

Southbound Bus Stops (West)

Downtown Southbound



Notes: Downtown southbound bus stops should provide enhanced seating. Because they are not proximal to the protected bike lane, downtown southbound bus stops do not provide an ideal location for bicycle parking.

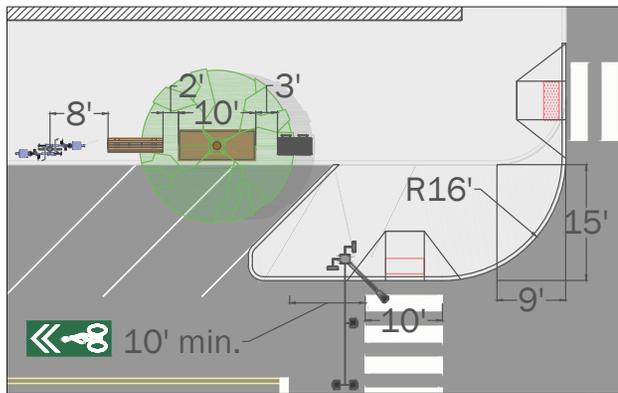


CONCEPTUAL DESIGN PLANS

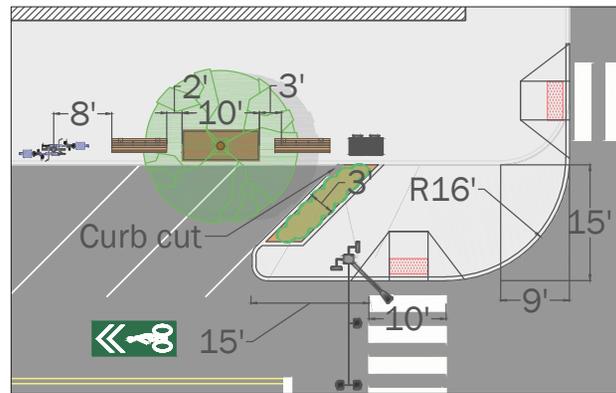
Curb Extension Typology: Uptown

Southwest Corner Options

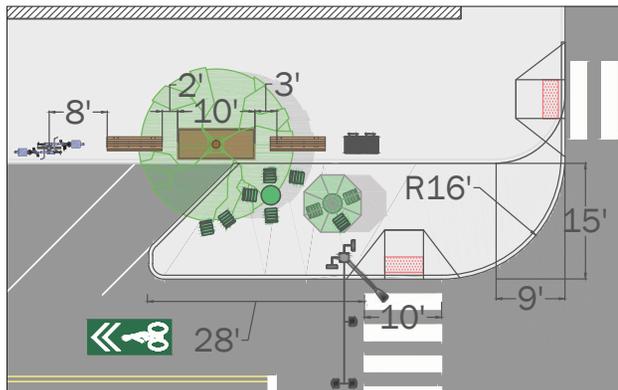
Standard



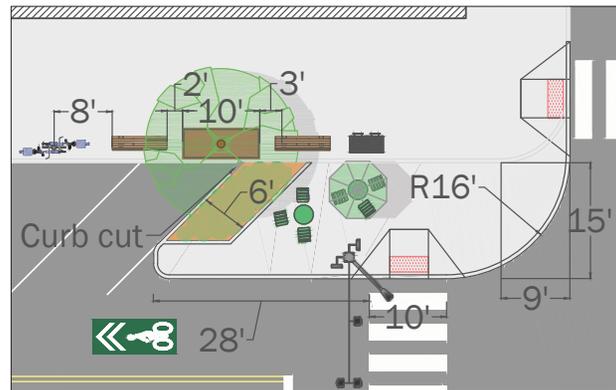
Green



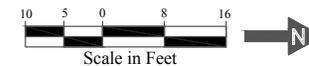
Enhanced Seating



Green + Enhanced Seating



Notes: Uptown southwest curb extensions provide ample space for enhancements. Opportunities exist to integrate plantings and/or green infrastructure, enhanced bench seating, or both. To accommodate more amenities, the length of the curb extension can be extended, though this may affect the availability of parking spaces. Standard proximities are provided for the arrangement of benches, trash receptacles, signal posts, and planters. Tree pits are to be refurbished in place. Street lights are also to be refurbished in place, however, it may be appropriate to construct new street light foundations if the existing location is awkward in relation to the design of a new curb extension.

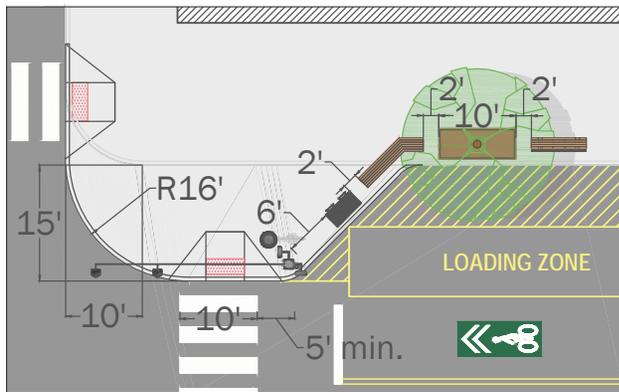


CONCEPTUAL DESIGN PLANS

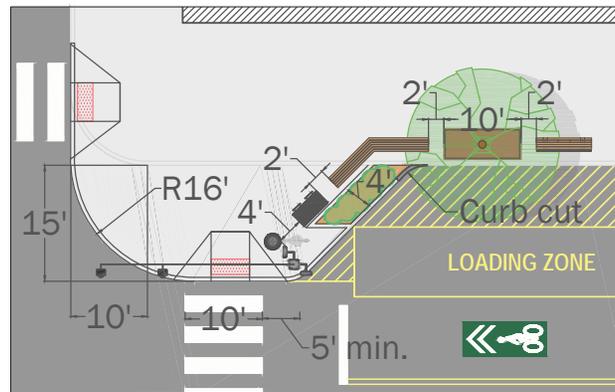
Curb Extension Typology: Uptown

Northwest Corner Options

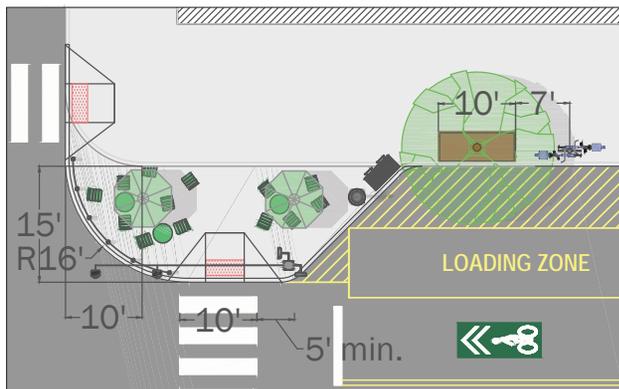
Standard



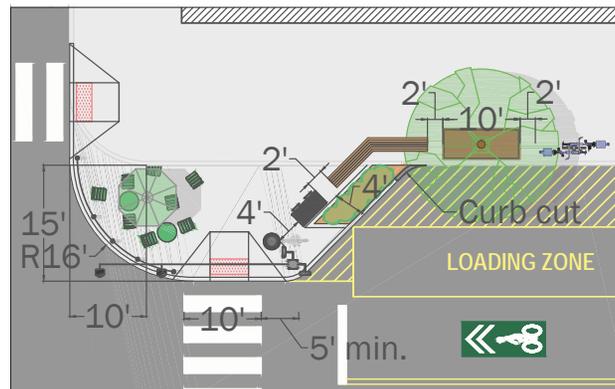
Green



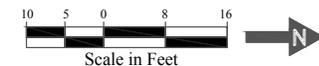
Enhanced Seating



Green + Enhanced Seating



Notes: Uptown northwest curb extensions provide ample space for enhancements. Opportunities exist to integrate plantings and/or green infrastructure, enhanced bench seating, or both. To accommodate more amenities, the length of the curb extension can be extended, though this may affect the availability of parking spaces. Standard proximities are provided for the arrangement of benches, trash receptacles, signal posts, and planters. Tree pits are to be refurbished in place. Street lights are also to be refurbished in place, however, it may be appropriate to construct new street light foundations if the existing location is awkward in relation to the design of a new curb extension.

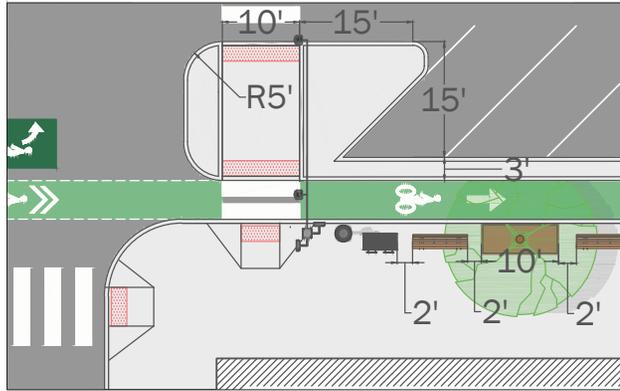


CONCEPTUAL DESIGN PLANS

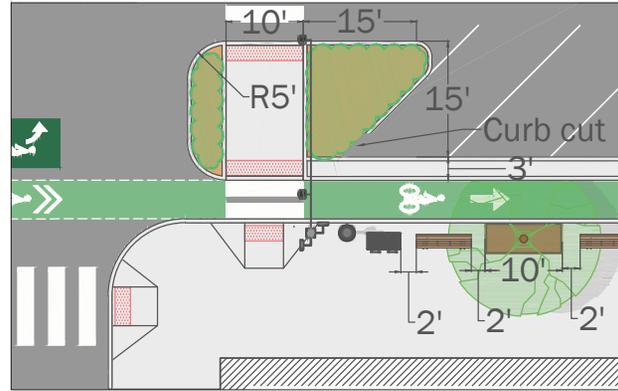
Curb Extension Typology: Uptown

Northeast

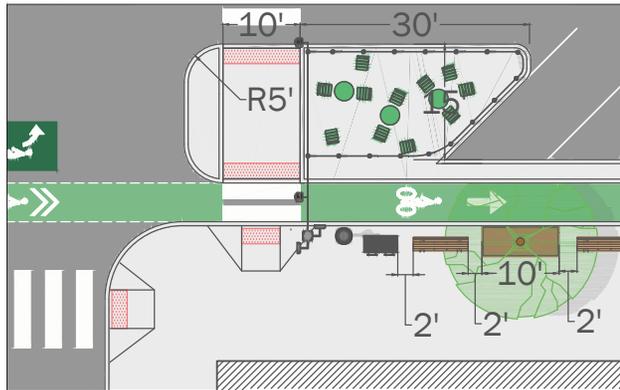
Standard



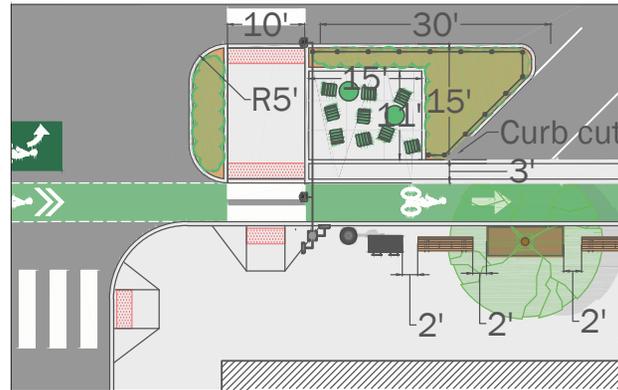
Green



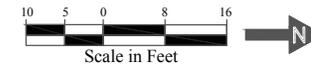
Enhanced Seating



Green + Enhanced Seating



Notes: Uptown northeast curb extensions provide ample space for enhancements. Opportunities exist to integrate plantings and/or green infrastructure, enhanced bench seating, or both. To accommodate more amenities, the length of the curb extension can be extended though this may affect the availability of parking spaces. Standard proximities are provided for the arrangement of benches, trash receptacles, signal posts, and planters. Tree pits are to be refurbished in place. Street lights are also to be refurbished in place, however, it may be appropriate to construct new street light foundations if the existing location is awkward in relation to the design of a new curb extension.

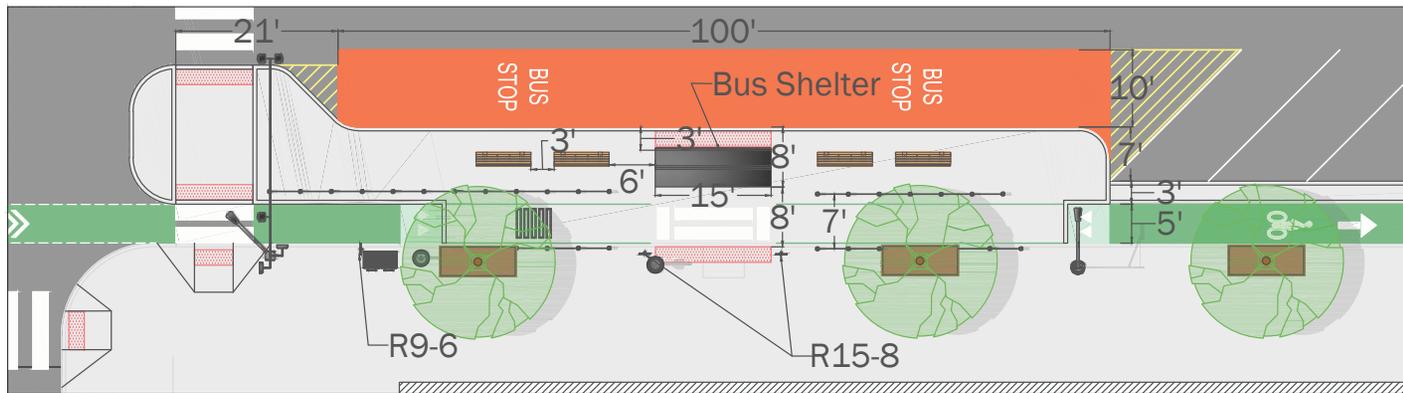


CONCEPTUAL DESIGN PLANS

Curb Extension Typology: Uptown

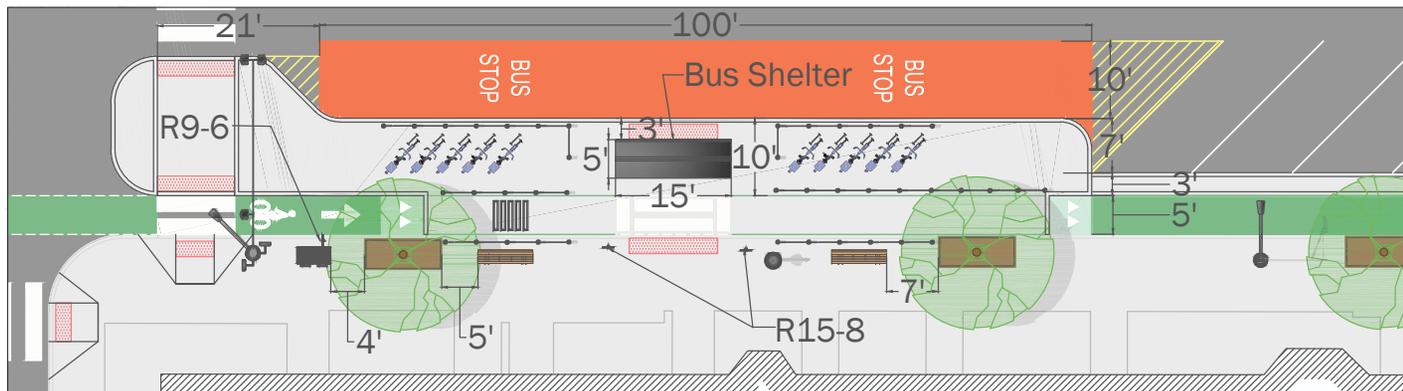
Northbound Bus Stop

Enhanced Seating

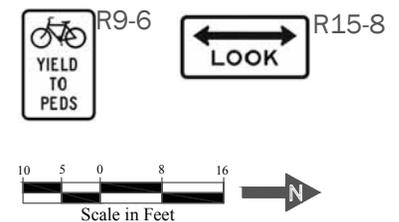


Notes: Uptown northbound bus stops can conveniently provide amenities such as enhanced seating, bike corrals, or bikeshare stations. The placement of bikeshare stations at bus stops provides a logical and practical link between two modes of transportation, with easy access to the protected bike lane.

Bikeshare



The ample sizing of curb extensions uptown in relation to the 18' sidewalks dictates that bus shelters would be ideally located on the extension in order to preserve clear passage along the sidewalk.

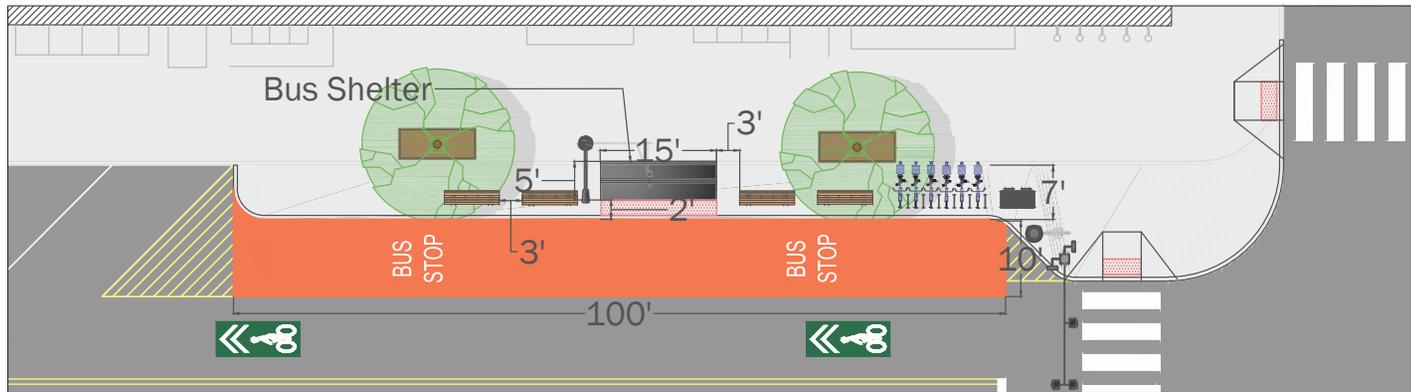


CONCEPTUAL DESIGN PLANS

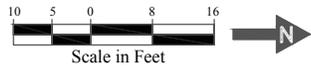
Curb Extension Typology: Uptown

Southbound Bus Stop

Uptown Southbound



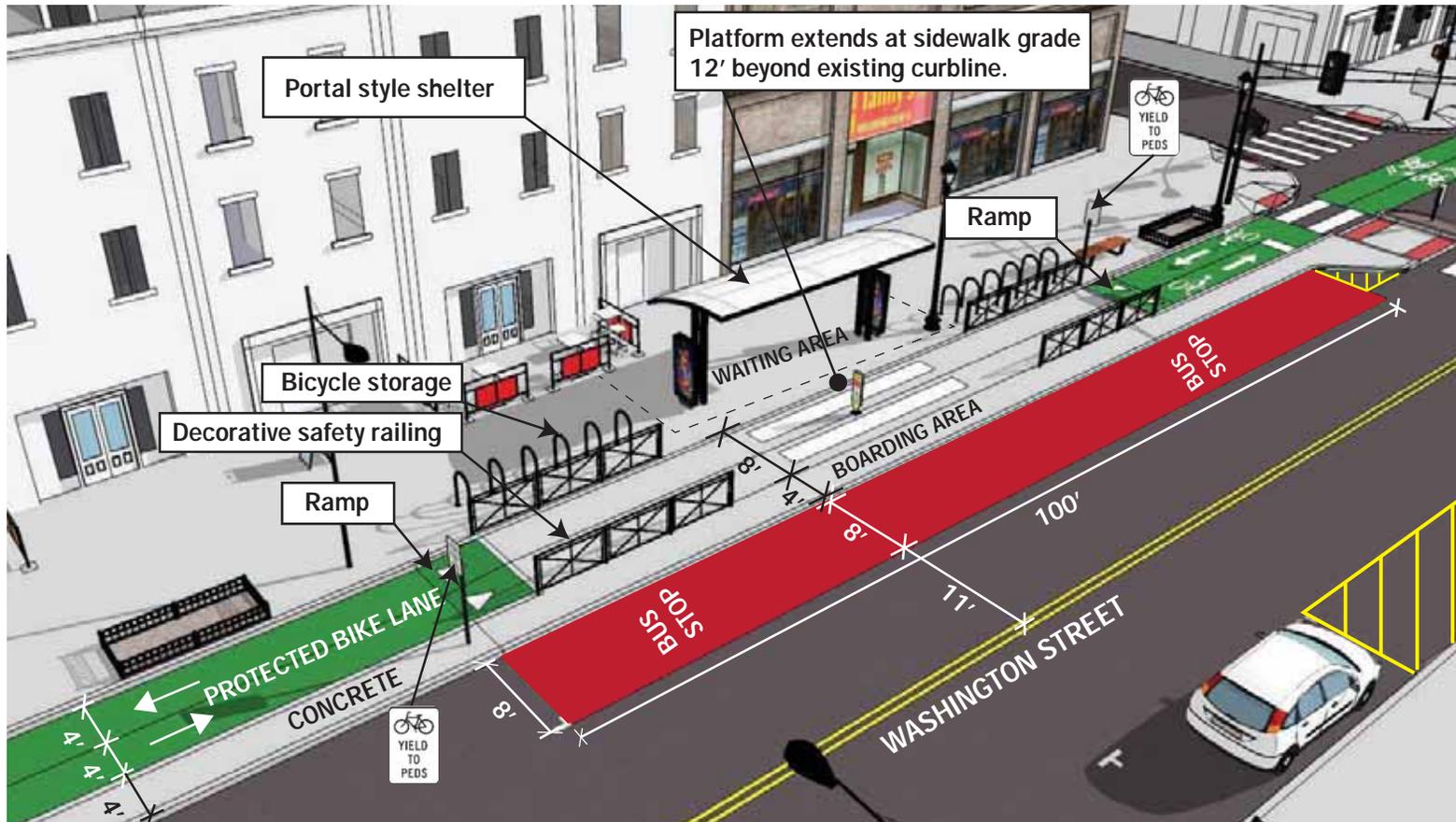
Notes: Uptown southbound bus stops can conveniently provide amenities such as enhanced seating, bike corrals, or bikeshare stations. The placement of bikeshare stations at bus stops provides a logical and practical link between two modes of transportation.



CONCEPTUAL DESIGN PLANS

Typical Bus Stop Design: Downtown

Northbound Bus Stop (East)



Notes: Bus patrons board and leave the bus on a concrete platform at grade with the sidewalk. Cyclists using the protected bike lane also traverse this platform, ascending and descending between roadway grade and sidewalk grade via ramps at both ends of the platform. Cyclists are to yield to pedestrians within the platform.

blank

CONCEPT DESIGN DETAILS

3

INTRODUCTION

The following sections provide insight into the design elements included in the Conceptual Design Plans. They depict and further describe characteristics of the design elements and notes to inform future project design phases.

Traffic Signals

Crosswalks

Protected Bicycle Lanes

Sidewalk Elements

- Sidewalks
- Benches
- Bicycle Parking
- Bus Shelters
- Trash Receptacles
- Tree Pits
- Street Lights
- Curb Extensions

Parking & Loading

Green Infrastructure for Stormwater Management

CONCEPT DESIGN DETAILS

Traffic Signals

Recommendations for traffic signals were developed in response to an overall assessment of current signal operation and condition, traffic volumes, circulation and operations, crash analysis, field observation and traffic counts, and other data collection findings.

A summary of the results of these analyses and conclusions can be found in the *Existing Conditions Report, Chapter 4, "Transportation."*

Recommendations are also based on deficiencies related to the age of the signals, which do not meet the current standards in the Manual on Uniform Traffic Control Devices (MUTCD).

The following is recommended for traffic for all 16 traffic signals along Washington Street:

- Traffic signal poles will be New Jersey Department of Transportation (NJDOT) standard poles and equipment powder-coated black. There will be poles in every quadrant of the intersection with traffic signal heads over travel lanes. Three signal heads with 12" lenses will be used for each approach with at least one over the lane. All traffic signal housings will also be black and will have black backplates.

- Count-down pedestrian signal heads will be used for all crosswalks.
- No pedestrian push buttons will be utilized (i.e. pedestrian phases will come up automatically), since pedestrian volumes outnumber vehicular volumes in this corridor. Emergency or transit vehicle detection may be used, pending further study, but vehicle detection for side streets will not be used.
- Traffic signal controllers will be equipped with battery backups, GPS clocks to keep coordination, and a wireless communications interface.
- Bicyclists in the protected bicycle lane (PBL) will travel on the Washington Street green signal, with signal heads placed over the PBL for visibility by cyclists. Bicycle signal faces will not be used because they require dedicated signal phasing for bicycles which will increase vehicle wait time.
- All signals will operate in fixed time operation with only two phases. The background cycle will be 75-80 seconds. Due to the high number of pedestrians, it is necessary to keep wait times as short as possible.



Count-down pedestrian signal head

- Progression will be based on a travel speed of 8-10 miles per hour in consideration of bus progression and bicycle progression along the PBL. (Buses currently average 6-8 miles per hour to travel the corridor, including stops). Waiting times when signals turn red will be cut nearly in half.

Refer to *Chapter 2, "Conceptual Design Plans"* for the proposed traffic signal layout.

Existing Inventory: TRAFFIC SIGNALS

STREET SIGNALS

Present number: 16



CONCEPT DESIGN DETAILS

Crosswalks

Existing crosswalks along Washington Street are constructed of concrete unit pavers set in concrete beds with flush-mounted bluestone curbing. Drawbacks of the existing design include:

- a lack of visual contrast between the asphalt roadway surface and paver crosswalk surface makes the crosswalks difficult for motor vehicle operators to perceive;
- the textured surface of concrete pavers can be an obstacle for people with disabilities;
- excessive cracking has been observed in the asphalt surface adjacent to the bluestone curbing.

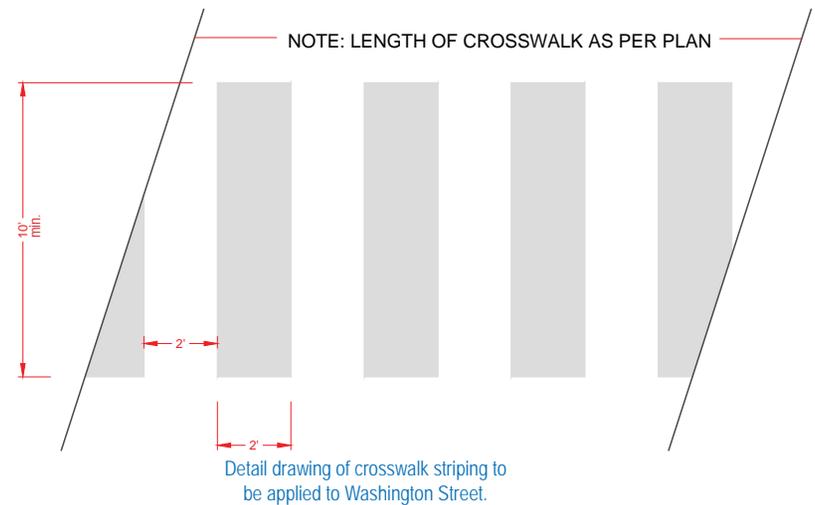
All brick paver crosswalks currently in place on Washington Street will be excavated and removed, including the bluestone edging. The excavated area will be reconstructed to receive asphalt paving.

All crosswalks will be striped with durable, skid-resistant, retroreflective and white thermoplastic in a piano key pattern as illustrated on this page. (The piano key pattern is also called continental). The length of the crosswalk will vary as shown on the Conceptual Design Plans and the width will be at least 10 feet with 2 feet wide stripes spaced every 2 feet as shown in the diagram.

This will produce a high level of visual contrast to delineate crosswalk areas, improve surface mobility for people with disabilities, and improve maintenance by reducing the occurrence of cracking and simplifying mill and overlay repaving projects for years to come.

Note: There may be opportunities to either sell or re-purpose the bluestone curbing.

A description of the current crosswalks can be found in Chapter 2, “Streetscape,” of the *Existing Condition Report*.



Existing Inventory: CROSSWALKS

CROSSWALK

Area: 20,000 SF



CONCEPT DESIGN DETAILS

Protected Bicycle Lanes

A protected bicycle lane (PBL), also known as a cycle track, satisfies a design objective to provide a safe bicycle travel facility to accommodate a wide range of abilities and ages.

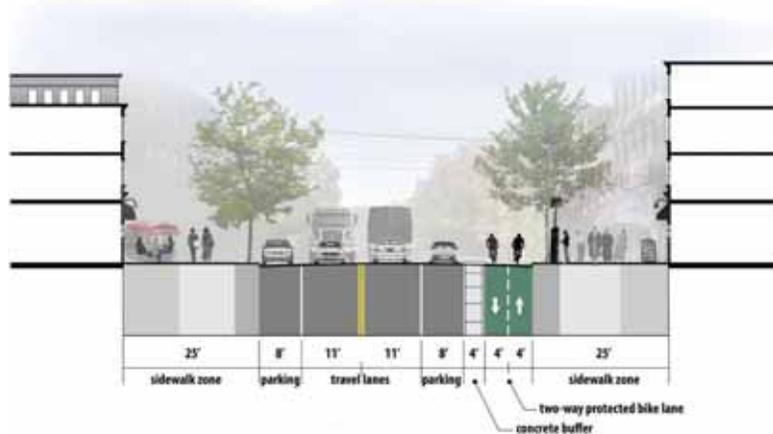
The provision of a PBL along Washington Street offers many benefits. It provides a new opportunity for economical and healthful bicycle travel as a part of daily life, provides a new mode of access to local businesses, and increases pedestrian safety by eliminating sidewalk bicycle riding. For cyclists, the PBL provides a dedicated space for bicycle travel and is separated from vehicular traffic by a raised concrete buffer. This reduces fear of collision, increases the perception of comfort and safety, and prevents dooring accidents. It provides a new, safe, dedicated travel facility for the mode of travel least accommodated in Washington Street's existing configuration.

The design of the PBL necessitates a reallocation of some space currently allotted to motor vehicle travel. South of 8th Street, existing 17' travel lanes are reduced to 11' in width, which provides space for an 8' PBL with northbound and southbound travel lanes and a 4' raised concrete buffer. North of 8th Street, existing 15' travel lanes are reduced to 11' in width, which provides space for a 5' one-way northbound PBL and a 3' raised concrete buffer. Shared lane markings accommodate southbound bicycle travel between 15th and 7th Streets.

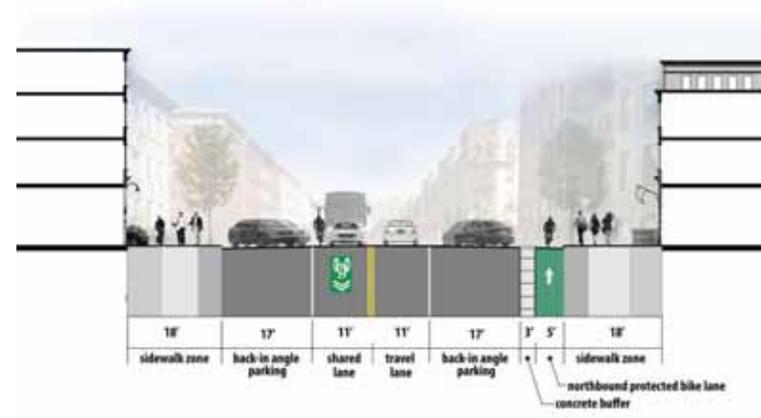
The PBL is proposed on the east side of Washington Street because there are fewer vehicles making turning movements on this side, as noted in the analysis of traffic volumes. Moreover, the PBL has no negative effect on parking capacity for the entire corridor.

At intersections, traffic signals will be installed above the PBL to provide clear instruction to cyclists. Bike boxes will be striped at various intersections to facilitate eastbound and westbound turns by cyclists. The PBL will also connect to the approved PBL to be constructed on Observer Highway, existing bike lanes at 11th Street, and proposed westbound bike lane at 15th Street to enhance the bicycle network of Hoboken. Details on intersection treatments, traffic signal configurations, and bike facility connections are provided in *Chapter 2: Conceptual Design Plans*.

The PBL will be green in color throughout Washington Street, except in the bus boarding areas, with skid-resistant, retroreflective surfacing outlined in white with yellow centerline striping.



TYPICAL: Downtown cross section



TYPICAL: Uptown cross section

CONCEPT DESIGN DETAILS

Streetscape Elements

INTRODUCTION

Today's Washington Street is by all accounts a "Great Street." The vertical and horizontal furnishings (sidewalk pavement, street lights, bus stops, etc.) come together with buildings to shape the Hoboken experience for residents, students, businesses, shoppers, and visitors. Currently, the selection and arrangement of some of its furnishings are inconsistent.

Replacing existing furnishings in-kind, adding new elements, coordinating their design, and installing features that enhance safety and convenience – these are opportunities not just to freshen up what the city has, but to really "get it right" and design a system of furnishings that magnifies the street experience in a way that none of the items can individually. The Washington Street Complete Street Redesign aims to capitalize on that opportunity.

The Concept Design Details for sidewalk elements present recommendations and suggestions for the selection, design and placement of streetscape elements. They are based on findings from the analysis of existing conditions, research and review of Hoboken's citywide planning documents, field observation, best practices, current standards and research that included discussions with utility companies and vendors.

The City of Hoboken anticipates that the "Complete Street" Redesign of Washington Street will replace, reposition, remove, or refurbish all furnishings and surfaces along the 16-block corridor. To get a sense of the scale of the endeavor, consider the individual components that make up Washington Street's streetscape: pedestrian lights, benches, bike racks, bus shelters with advertising display panels, trash receptacles, message boards, pay phone/internet kiosks, and street trees growing in tree pits. Also consider the surface pavement materials in need of replacement: a sum estimated at 300,000

square feet composed of materials such as poured concrete, concrete pavers, and bluestone panels (see the inventory table, "Washington Street Furnishings by Block" in the Appendix).

Preferences and priorities emerged from discussions in interviews and meetings with City officials and staff, the Historic Preservation Commission, the Hoboken Shade Tree Commission and a wide range of other stakeholders. The public also "weighed in" through surveys and public meetings.

The Concept Design Details that follow are conceptual. They represent the beginning of a process that will continue to evolve as the project advances to preliminary design, engineering, and construction. Cost, availability of funding, opportunities for incorporation into related projects, and changing conditions and priorities will all be factors in the refinement and phasing of streetscape elements. In addition, new products such as Smart Street technologies and more resilient materials that resist flood damage may become available, widening the range of possibilities.

STREETSCAPE ELEMENTS

Sidewalks

Benches

Bike Racks

Bus Shelters

Trash Receptacles

Tree Pits

Street Lights

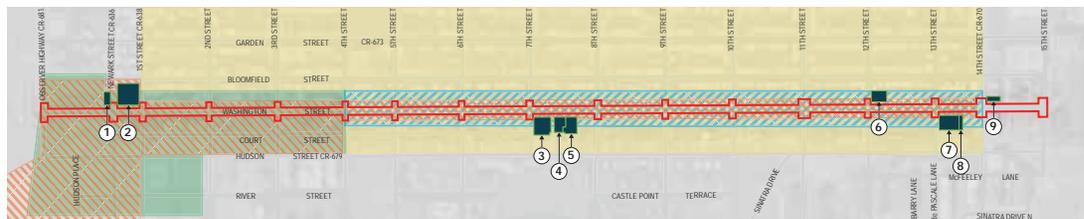
HISTORIC DISTRICTS

Washington Street includes four historic districts and a number of individual historic architectural resources. In designing and selecting street furnishings as part of an overall streetscape enhancement project, there is a question as to how the historic nature of the district should play into these decisions.

- Southern Hoboken Historic District
- Central Hoboken Historic District
- Southern Hoboken Historic District Extension
- Central Business and Washington Street Historic District

Hoboken's 2007 Master Plan takes a clear position: "the

Washington Street Map of Historic Districts



- Study Area
- Southern Hoboken Historic District
- Central Hoboken Historic District
- Southern Hoboken Historic District Extension
- Central Business and Washington Street Historic District

- 1 B4 Washington St. Hoboken Bank for Savings (Hoboken Master Plan 2004)
- 2 86-98 Washington Street Hoboken City Hall (New Jersey Register of Historic Places 8-13-1975; National Register of Historic Places 1-1-1976; Hoboken Historic Preservation Ordinance: Hoboken Master Plan 2004)
- 3 707 Washington St. All Saints Episcopal Parish (Hoboken Historic Preservation Ordinance)

- 4 713 Washington Street Hoboken Charter School (Hoboken Historic Preservation Ordinance)
- 5 721 Washington Street Mount Olive Baptist Church (Hoboken Historic Preservation Ordinance)
- 6 1200-1206 Washington Street (New Jersey Register of Historic Places 12-3-1986; National Register of Historic Places 3-9-1987; State Historic Preservation Officer Opinion of Eligibility 6-24-1987; Hoboken Historic Preservation Ordinance: Hoboken Master Plan 2004)

- 7 1301 Washington Street Hoboken-North Hudson YMCA (State Historic Preservation Officer Opinion of Eligibility 4-20-2007)
- 8 1313 Washington Street Engine Co. #2 Firehouse (New Jersey Register of Historic Places 2-9-1984 (Thematic Nomination of Hoboken Firehouses); National Register of Historic Places 3-30-1984; Hoboken Historic Preservation Ordinance: Hoboken Master Plan 2004)
- 9 1400 Washington Street Hoboken Trust Company / Hudson Reporter (Hoboken Master Plan 1994)

Map by RBA. Base: NJ DOT Road Centerlines 2010; NJGIN 2012 Aerial. Districts: City of Hoboken Master Plan 2004; City of Hoboken Municipal Code, Chapter 36 § 42-114.1, accessed through ecode360.com 03/18/2014. Sites: Data compiled by RBA December 2013.

goal is not just to preserve what is best, but also to require high-quality design that will build the historic districts of the future."

The buildings along Washington Street are the primary source of its historic character. Street furnishings, however, are generally not.

The *Historic Preservation Ordinance* for the City of Hoboken cites the Secretary of the Interior's *Standards for the Treatment of Historic Properties*. Through its Historic Preservation Commission, Hoboken adheres to the Secretary of the Interior's standards, which helps to eliminate subjectivity in selecting the design of streetscape elements and discourages the use of elements that may be incorrectly

construed as being historic. To that extent, street furnishings must necessarily be of their own time.

Historic Preservation Commission members and RBA design team staff considered criteria to guide future design decisions.

Here is a summary:

- **Avoid false history:** Consistent with the Department of the Interior's standards, the new furnishings will be a 2014 intervention. They could be timeless a design, avoiding inauthentic, "historic-ish looking" elements. Ideally, the street furnishings chosen would become the new standard for all of Hoboken's public spaces wherever appropriate, which provides design cohesion and allows for an economy of scale in purchasing that may benefit the City.
- **Allow design flexibility:** Acknowledging that implementation may be incremental, the City should not lock itself into a "system" of street furnishings from a single designer/supplier, though each component should share similarities in color, materials, proportions and fabrication techniques. This is an aesthetic position as well as an accommodation for the realities of availability and cost. Additionally, local manufacturers can be engaged in this process to either provide appropriate products from an existing inventory of designs, products based on the result of a design competition. For durability, the design and finish of new furnishings must acknowledge the marine environment they will be placed in and the "tie-offs" of a lamp post should be located at a point higher than anticipated flood levels.
- **Investigate innovative ways to invite great design:** The City should explore funding possibilities to enable artists, architects, designers, and area fabricators to participate in design of Washington Street furnishings and other projects.



N.T.S.

- **Co-location of functions:** Another design consideration is to find opportunities to locate several functions on the same element to reduce clutter and provide more space. For example, wi-fi antennas can be mounted on streetlights; the Big Belly trash receptacles can carry art, advertising, and community messages.
- **Welcome green solutions:** Try to use local suppliers and manufacturers. Investigate re-purposing existing streetlight bases, harnessing “embedded energy” of in-place conduit, bases, mounting hardware, and poles. Specify elements that use less energy to make, transport, operate, and maintain. Where possible, use materials that are not toxic and are recyclable.

Hoboken’s historic districts span approximately 150 years of architectural styles. The construction of modern buildings within a historic district that are representative of their time is consistent with the Secretary of the Interior’s standards. This does not mean an abandonment of other compatibility considerations such as scale, materials, heights, roof lines, and fenestration patterns.

The *Historic Preservation Plan Element* of Hoboken’s *Master Plan* includes the recommendation to “encourage contemporary building designs for new construction that complement Hoboken’s historic buildings without mimicking them.”

This recommendation should be applied directly to the design of its civic places such as streets and parks, especially Washington Street. Even though City resources for infrastructure are stretched, every city decision on materials, products, and design criteria must be informed by these same values. If economic priorities require that Hoboken refurbish rather than replace some streetscape elements that fall far short of

the values of historic authenticity and design integrity, those elements (signal masts, bus shelters, benches etc.) can be of a more taut, modern, aesthetic that complements Hoboken’s historic buildings – fulfilling the goals of “differentiation” and “compatibility.”



A postcard view from 1913 shows a view to the north along Washington Street from City Hall.



A postcard view from 1912 shows a view to the north along Washington Street from 5th Street.

CONCEPT DESIGN DETAILS

Streetscape Elements: Sidewalks

Existing sidewalks along Washington Street vary in condition, materials, and finish. Much of the sidewalk area is in poor condition due to many years of traffic, exposure to the elements, and patchwork repairs. Between the sidewalk and the curb is a 4' wide amenity strip with concrete pavers with worn appearance.

As a component of this design, the existing sidewalks will be replaced. A uniform gray concrete sidewalk with saw-cut expansion joints and a light broom finish will be applied to the length of the corridor. This includes the uniform replacement of the concrete paver amenity strip.

Expansion joints will be applied parallel and perpendicular to the direction of sidewalk travel, as shown in the joint pattern diagram on this page. All curb ramps will be reconstructed to ADA standard.

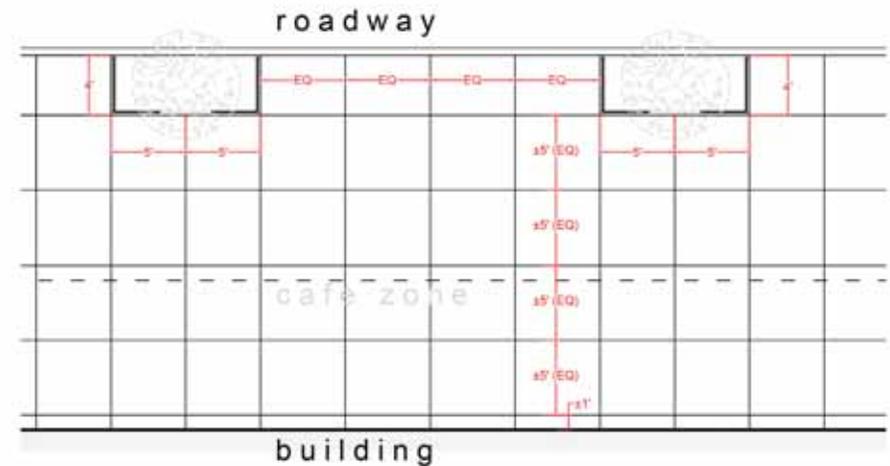
As an exception to the uniform reconstruction of sidewalk, the City should consider maintaining the original bluestone slabs in front of City Hall, as per review by the Historic Preservation Commission.

Note: The City may consider permeable concrete; however, permeable concrete should only be deployed after appropriate geotechnical study of underlying soil conditions. (See "Green Infrastructure").

A description of the current sidewalk characteristics and conditions can be found in *Chapter 2, "Streetscape"* of the *Existing Condition Report*.



Saw-cut expansion joint in concrete paving. (Source: Wikipedia.)



Joint Pattern (see diagram above):
 Origin: 5' x 5' squares originating at tree pit. First course from curb always 4' x 5'.
 Fitting: Equal Distance [±5' (EQ)] assumed where precise 5' not possible.
 At building face, ±1' band as necessary.

Existing Inventory: SIDEWALKS

SIDEWALKS

Area: 210,000 SF



CONCEPT DESIGN DETAILS

Streetscape Elements: Benches

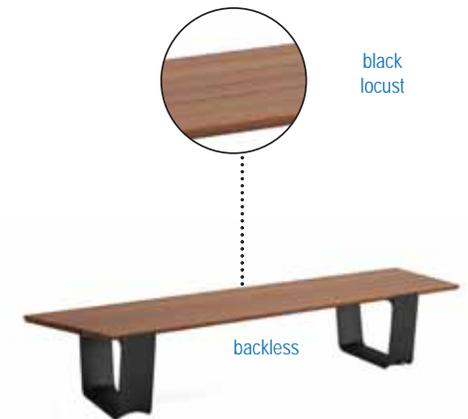
Existing benches along Washington Street were installed in the 1990s and are now worn, with many in need of repair or replacement. Most benches are awkwardly oriented with a view toward parked cars. To enhance Washington Street as a high quality destination, all benches should be replaced.

Benches along Washington Street should be inviting and comfortable to attract and accommodate visitors. They should complement the existing architecture without imitating it. They should be durable, mendable, and versatile. As guidelines for the selection and placement of benches along Washington Street, priorities for new bench selection should include:

- Form: Benches will be sleek, elegant, simple, forward-looking.
- Height: Bench seating will be 17" - 19" high for comfort.
- Variation: A bench system should include the ability to vary configurations. A uniform bench design should be available with or without back support or arm rests. Benches should have the ability to be paired in a straight line, at right angles, and at various angles in between to suit their placement on curb extensions.

- Base material: Bench frames will be powder-coated black aluminum or steel for durability and visible consistency with other street furnishings
- Seat material: Bench seating will be wood, which is elastic, soft, warms in the sun without overheating, is durable, replaceable and inviting. Black locust (*Robinia pseudoacacia*) is available domestically.
- Orientation: As a standard, benches will face the sidewalk.
- Frequency: As a minimum, four benches will be provided on each side of a block.
- Attachment: Benches will be surface-mounted to sidewalk surfacing so that they can be removed for repairs.

See the Curb Extension Typology drawings in *Chapter 2, "Conceptual Design Plans"* for a range of appropriate bench configurations and spacing.



Shown: MultipliCITY by Landscape Forms®



Existing Inventory: BENCHES

BENCHES
Present number: 69
Average 4 per block



CONCEPT DESIGN DETAILS

Streetscape Elements: Bicycle Parking

With the construction of a new protected bike lane (PBL) expected to increase bicycle travel along Washington Street, bicycle parking is an essential consideration.

According to the Association of Bicycle and Pedestrian Professional, *Bicycle Parking Guidelines* (2010 2nd Edition), bicycle parking encourages people to ride, but also has some benefits for non-cyclists. Bicycle parking is good for business. Designated, well-designed parking promotes a more orderly streetscape and preserves the pedestrian right-of-way. Bicycle parking helps legitimize cycling as a transportation mode by providing parking opportunities in a manner similar to that provided for motorized modes.

For the length of Washington Street, bicycle racks capable of accommodating two parked bicycles will be placed at a rate of three per block. An initial total of 96 individual racks will be deployed along the 16 block corridor, accommodating 192 bicycles. This total can be expanded as demand increases.

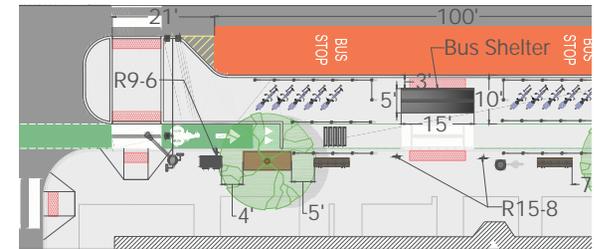
Additional bicycle parking is provided with bike corrals that range in capacity between 5 and 20 bicycles. That range in capacity can accommodate both personal bike storage and future bikeshare storage. Along Washington Street, bike corrals should be placed in the vicinity of bus stops to reinforce an association between bicycle travel and transit. See the

curb extension typology drawings associated with bus stops in Chapter 2, "Conceptual Design Plans" for a range appropriate bike corral configurations.

Chapter 4, "Transportation" of the *Existing Condition Report* addresses bicycle circulation and facilities.

Note: Municipal garages could be outfitted for longer-term commuter bike parking.

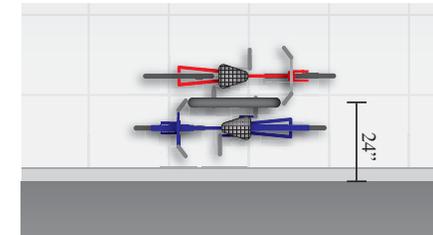
Note: Local restaurants could be incentivized to use bicycle deliveries and encourage customers to access their businesses on bike.



Possible configuration of bike corral storage at a bus stop on Washington Street.



Shown: Custom Bike Hitch by DERO



Typical distance of bike rack to curb for single deployment.

Existing Inventory: BIKE RACKS

BIKE RACKS

Present number: 49
Average 3 per block



CONCEPT DESIGN DETAILS

Streetscape Elements: Bus Shelters

Existing bus shelters along Washington street feature a roof and enclosing walls on three sides. These “hut style” bus shelters block the flow of pedestrian traffic on sidewalks and the enclosed design has a suburban feel that is more appropriate for places where bus pickups are less frequent. “Off-the-shelf” bus shelters tend to be hut style and therefore inappropriate for Washington Street; a custom design may need to be produced for the corridor.

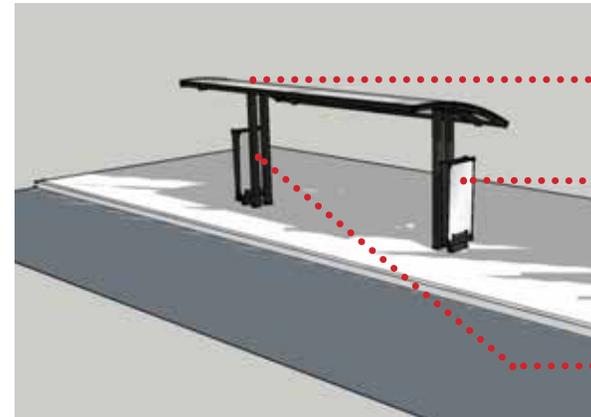
Bus shelters along Washington Street will be replaced with “portal style” shelters that are more appropriate to the urban context and frequent bus activity. A portal style shelter has a canopy roof to provide shelter from rain and lacks enclosing walls. This configuration will maximize that walkway width of the sidewalk and allow passengers to pass through the bus portal rather than entering and exiting a confined space.

Portal style shelters along Washington Street are to consist of a black powder-coated steel or aluminum frame with an opaque structural glass (or similar) canopy. Shelters should be no more than 5’ wide to preserve sidewalk passage, should extend a minimum of 10’ (or more, to accommodate the busiest stops), and should be tall enough to project over the roof line of a bus, creating a seamless transition in rainy weather.

Additionally, bus shelters should include a wayfinding map and could employ wi-fi, phone charging, and/or digital emergency signals.

Bus shelters along Washington Street are currently maintained by a private company and include advertising. A similar arrangement into the future will ensure its revenue-producing potential and acceptable maintenance practices.

Note: Consider a “gull wing” design as at the Hoboken Terminal; the water collected could be channeled to adjacent/nearby tree pits through an integral down spout.



Roof: Provides temporary shelter opportunity.

Advertising: Should be placed at eye level. It should be compact and not impede passage along the sidewalk.

Columns: Two support columns should be the maximum.

Image to convey desirable features of a bus shelter on Washington Street. Ultimate form and appearance yet to be determined. The bus shelter shown is a variation of the arch shelter manufactured by Duo-Gard.

Existing Inventory: BUS SHELTERS

BUS SHELTERS

Present number: 11
Advertising contract at expiration



CONCEPT DESIGN DETAILS

Streetscape Elements: Trash Receptacles

A well-maintained Washington Street is a place where people will feel comfortable gathering, sitting on benches, eating outdoors, window shopping, and enjoying the bustle of local commerce. Simply put, cleanliness will contribute to the qualities that make Washington Street a successful place to work, live, and visit.



BigBelly® trash and recycling station at Washington and 1st Street.

The City of Hoboken is deploying an advanced form of litter and trash collection along Washington Street. Manufactured by BigBelly® Solar of Newton, Massachusetts, the City will combine

modular waste and recycling units into a single station at each corner along Washington Street. Powered by solar energy, these stations save on trash-related costs by alerting the City for just-in-time collection, self-compacting to maximize time between collections, and tabulating collection data to inform “hot spots” of trash activity. Through this technology, the City affords all citizens and visitors the opportunity to reduce their carbon footprint by contributing to a public-space recycling program and a highly efficient public waste collection effort.

Waste and recycling stations, as pictured at left, will be deployed at each corner along Washington Street. The total number of stations to be deployed is 64. To maintain a consistent appearance, all new stations should match the existing, with gray body panels within the black powder-coated steel chassis. The City should consider the addition of 18” x 30” panels to display revenue-producing advertisements or wayfinding information. See the Curb Extension Typology drawings in *Chapter 2, “Conceptual Design Plans”* for a range of appropriate configurations and spacing.

Composting Alternate: Although still in the trial phase, Big Belly also offers a composting station. Deployment of these could provide an additional disposal resource to residents along Washington Street (see photo).



Typical dimensions of BigBelly® trash receptacle (Image by BigBelly® Solar.)



18” x 30” information pane on BigBelly® trash receptacle (Image by BigBelly® Solar.)

Existing Inventory: TRASH RECEPTACLES

TRASH RECEPTACLES

Present number: 54
Average 4 per block,
1 @ ea. corner



BigBelly+SmartBelly Triple Stations for waste, recycling and compostables (Image by BigBelly® Solar.)

CONCEPT DESIGN DETAILS

Streetscape Elements: Tree Pits

Existing tree pits along Washington Street vary in condition, with many trees in poor condition or missing. Most tree pits are too small to accommodate healthy trees and are unprotected by tree guards.

Healthy street trees will be restored along Washington Street to provide a valuable visual presence, comfortable shade, habitat, and a psychological connection to nature. Healthy street trees also moderate the urban heat island effect, absorb stormwater, and provide shade, making spaces more attractive and comfortable for people. On a street where people feel comfortable, local businesses benefit.

The Hoboken Shade Tree Commission has developed specifications to refurbish tree pits along Washington Street that include replacement tree sizing, soil amendment, resizing of tree pits to 4' x 10', and installation of iron tree guards. Typical details associated with these specifications are shown on this page. Additionally, these specifications are employed in the *Conceptual Design Plan* (see Chapter 2), which treats existing tree pits as refurbished in place.

The Hoboken Shade Tree Commission also maintains an inventory with location and assessment of individual tree

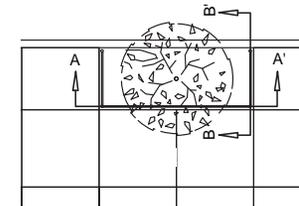
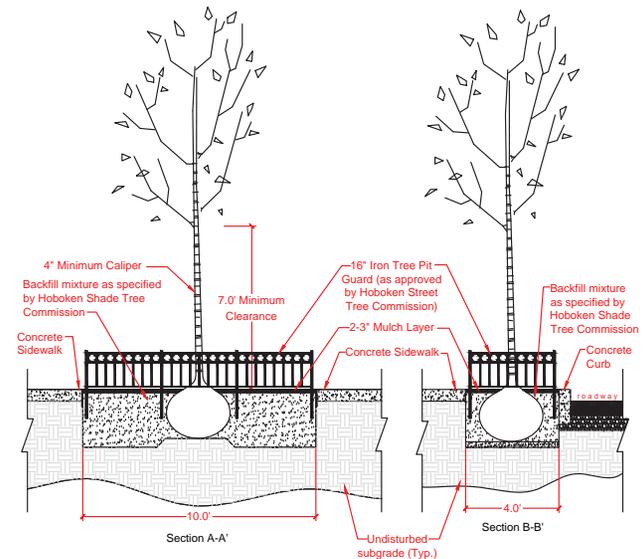
condition and maintenance recommendations. In general, street trees along Washington Street will be preserved where they have matured successfully, be removed and replaced where dead, dying, hazardous, be pruned for upright structure with spread canopy raised 7' - 20' above sidewalk grade, and be planted where tree pits are vacant.

Recommended species for Washington Street selected from the Hoboken Shade Tree Commission approved list of street trees include:

Honeylocust (<i>Gleditsia triacanthos inermis</i>)	Littleleaf Linden (<i>Tilia cordata</i>)
Sweetgum (<i>Liquidambar styraciflua</i>)*	Silver Linden (<i>Tilia tomentosa</i>)
Swamp White Oak (<i>Quercus bicolor</i>)*	Japanese Zelkova (<i>Zelkova serrata</i>)
Pin Oak (<i>Quercus palustris</i>)*	Sawtooth Oak (<i>Quercus acutissima</i>)
Northern Red Oak (<i>Quercus rubra</i>)	Red Maple (<i>Acer rubrum</i>)*
Basswood (<i>Tilia americana</i>)	Hackberry (<i>Celtis occidentalis</i>)

Note: The City and the Shade Tree Commission should continue to encourage property owners to assist in maintaining the street trees and tree pits that are adjacent to their properties. Tree pits should be kept free of waste. Mulch depth should be 3" maximum and mulch should be kept 6" clear of the base of the trunk. Use of tree lights should be seasonal only to prevent long-term damage to the trees.

Typical tree pit planting instructions are based on Hoboken Shade Tree Commission documents, which include the following design details:



Existing Inventory: TREE PITS

TREE PITS

Present number: 195
Average 12 per block



CONCEPT DESIGN DETAILS

Streetscape Elements: Street Lights

Existing street lighting along Washington Street is deficient in various ways. Adequate lighting levels are not achieved at intersections, compromising safety. Existing light fixtures contribute to glare problems for drivers and pedestrians alike, create light pollution because they have no cut-off capacity, and appear old and discolored. See *Chapter 2, "Streetscape"* in the *Existing Conditions Report* for a description of current lighting.

Street lighting along Washington Street will be updated and refurbished to remedy existing deficiencies by incorporating LED technology, cut-off fixtures, and a full spectrum light source. These features are to be incorporated while maintaining and reusing the existing light pole foundations and most of the existing poles to for cost savings. Through its lease agreement with PSE&G, the City of Hoboken can acquire replacement light fixtures for the corridor with no outlay of capital costs.

To achieve desired lighting levels, Washington Street will feature a combination of 14' pole top light fixtures and 25' arm-mounted fixtures. South of 8th Street, there will be two pole top fixtures for every arm-mounted fixture, while north of 8th Street they will alternate on a one to one basis. This is due to the 14' difference in roadway width between downtown and uptown.

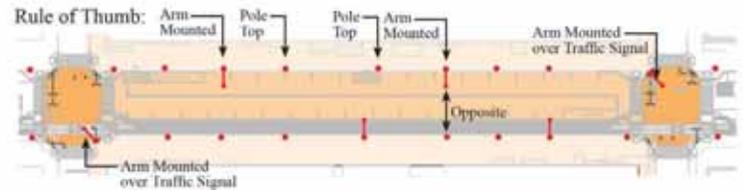
Pole top fixtures will be replaced on existing foundations and utilize the existing poles, both of which will be inspected and refurbished. Arm-mounted fixtures, which provide better roadway lighting, will utilize existing foundations (following inspection) with new 25' poles. At intersections, arm-mounted fixtures will be attached to traffic signal poles to provide appropriate lighting performance at intersections. The diagram on this page displays the typical arrangement of fixtures to achieve desired illuminance on different portions of the roadway. Fixtures are also drafted in *Chapter 2, "Conceptual Design Plan"*.

New pole top fixtures should complement existing fluted poles. New arm-mounted fixtures complement traffic signals with simple, straightforward design. All fixtures should be black powder-coated to match the pole and foundation.

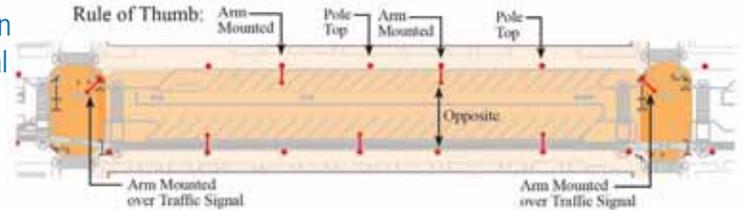
Average Illuminance Range	
Sidewalk	0.5 - 1.0 Fc
Roadway	1.0 - 1.5 Fc
Intersections	2.0 - 2.5 Fc



Downtown Typical



Uptown Typical



Existing Inventory: STREET LIGHTS

PEDESTRIAN LIGHTS

Present number: 205
Average 16 per block



CONCEPT DESIGN DETAILS

Parking & Loading

Maximizing parking capacity and accommodating loading operations are important to the local economy. Based on the high demand, the current parking configuration and management leads to constrained access to businesses and creates a situation in which vehicles circulate to find parking, which adds to congestion and detracts from quality of life. The existing conditions can also compromise safety. For example, prevalent double parking impedes visibility of oncoming cars for pedestrians and forces bicyclists to weave into traffic lanes.

The characteristics of the existing infrastructure and current practices are described in *Chapter 3, "Street Parking and Loading"* of the *Existing Conditions Report*, which includes a parking inventory and issues raised by stakeholders and the public. It is anticipated that the parking and loading recommendations and configuration in this conceptual plan will complement those of the City of Hoboken's citywide *Parking Master Plan* that is currently under development.

Parking issues along Washington Street include parking demand in excess of capacity, common incidence of double and even triple parking, lack of wayfinding signage and direction to off-street parking garages, unclear regulatory signage and policies, incidence of illegal meter feeding to extend parking duration, and on-street parking for extended periods by local business employees.

Loading issues include a high incidence commercial loading activities carried out in bus stop zones, fire hydrant zones, and parking-prohibited clear zones at intersections. Double parking is also prevalent among delivery truck operators along with excessive engine idling. Most commercial loading activity takes place during periods of heavy pedestrian and vehicular traffic.

PARKING

South of 8th Street, all metered parking spaces along Washington Street will be striped and numbered. This will result in a net loss of 2% of potential parking spaces in that area (versus observed legal parking in the current non-striped configuration). In exchange, striped spaces will provide more orderly parallel parking maneuvers. This will maximize the number of available parking spaces by discouraging drivers from occupying and blocking more space than necessary, which reduces the number of parking spaces available to others. It will streamline parking operations for customers and the City.

North of 8th Street, all parking is to be converted to back-in angled parking. All dimensions are provided in *Chapter 2, "Conceptual Design Plan."*

The conversion to back-in angled parking maintains the existing parking capacity and includes numerous benefits. Back-in angled parking improves visibility for drivers pulling into the roadway, which is safer for cars, pedestrians, and bicyclists, and is particularly appropriate for the shared southbound lane proposed from 15th to 7th Street. Back-in angled parking allows passengers to access their vehicles and trunks with all doors open to the sidewalk rather than the roadway, reducing pedestrian exposure to vehicular movement, which is safer especially for children. Finally, the parking maneuver is fast and can be completed in an average of 6 seconds (versus 30 seconds to parallel park).

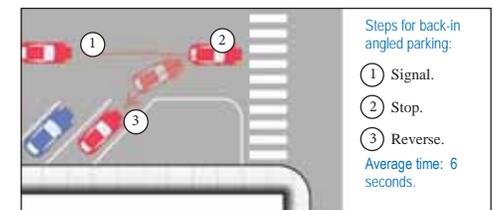
Note: Consideration of strategies such as "value" pricing, hybrid permit/meter parking, and the continued/expanded use of digital multi-meters should only take place after the completion of the citywide *Hoboken Parking Master Plan*.

Note: Business owners and their employees could be incentivized to avoid using parking spaces along Washington Street and to instead use off-street parking garages.

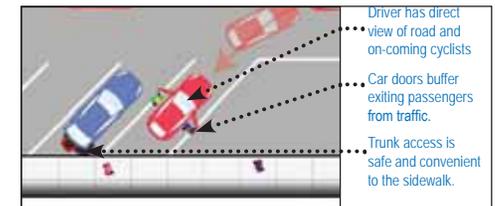
Note: Parking signage should state that idling of engines is forbidden. Emissions aimed at the sidewalks affects pedestrians passing by.

Note: Wheel stops were considered but not recommended because of anticipated conflicting sweeping and snow removal operations.

Note: The publication "Dimensions in Parking, 5th Edition" recommends the use of a worst case vehicle with dimensions of 6'7" x 17'3" and wheel base of 10 feet for design purposes. This roughly equates to a Ford Expedition SUV. Using this vehicle, it was verified using the program AutoTurn that back-



Steps for Back-in Angle Parking



Key Benefits of Back-in Angle Parking

in angled parking maneuvers could be completed from an 11' travel lane. No encroachment on the centerline by maneuvering vehicles is anticipated.

LOADING

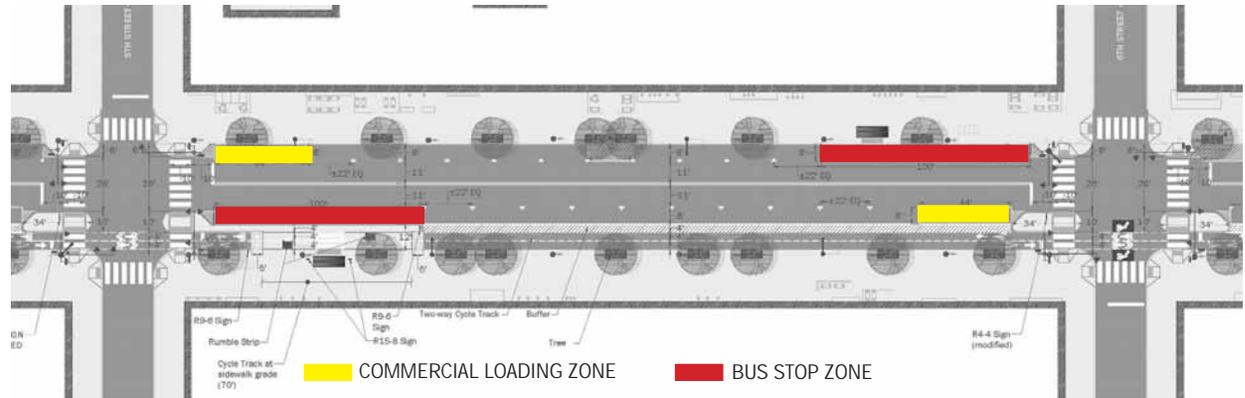
Commercial loading operations along Washington Street will improve with the addition of two commercial loading zones per block. Commercial loading zones will be 44' long (equal to 2 parallel parking spaces) and will occur on opposite ends of each block, on opposite sides of the road, and across from bus stop zones where they occur (see diagrams).

Loading zones will be reserved for commercial loading activity daily from 6AM - 2PM. After 2PM, they will be open to 30-minute metered public usage. This will provide a total of 32 time-designated commercial loading zones along Washington Street.

Location of loading zones appears in *Chapter 2, "Conceptual Design Plan."*

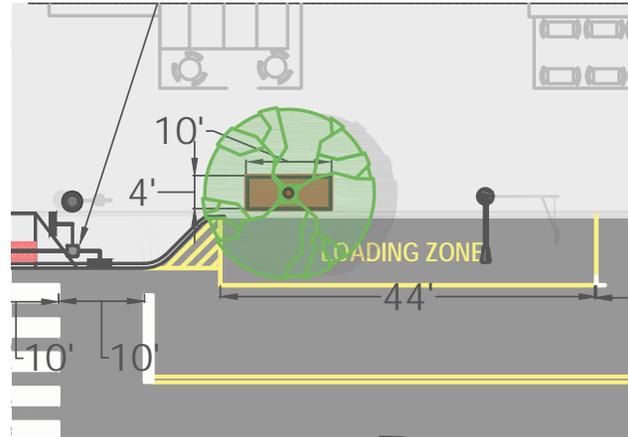
Note: The current policy, which requires residents to reserve parking spaces for residential moving operations in advance, will continue to be administered by the City.

Typical Location of Loading Zones



N.T.S.

Typical Dimensions of Loading Zones



N.T.S.

CONCEPT DESIGN DETAILS

Green Infrastructure for Stormwater Management

Hoboken faces major challenges related to stormwater management, which include flooding on low-lying areas during storm events, reliance upon a combined sewer outflow (CSO) system that treats both sewerage and stormwater, discharge of untreated combined stormwater and sewerage during major storm events, and susceptibility to tidal flooding due to elevation and proximity to the Hudson River.

The majority of Washington Street does not experience flooding due to its elevation relative to surrounding lands, although the elevations vary along the corridor as described below.

- 1st Street to 12th Street can be considered the “high ground” of Washington Street, with elevations 20-25 feet above sea level, and this segment is generally free

of flooding.

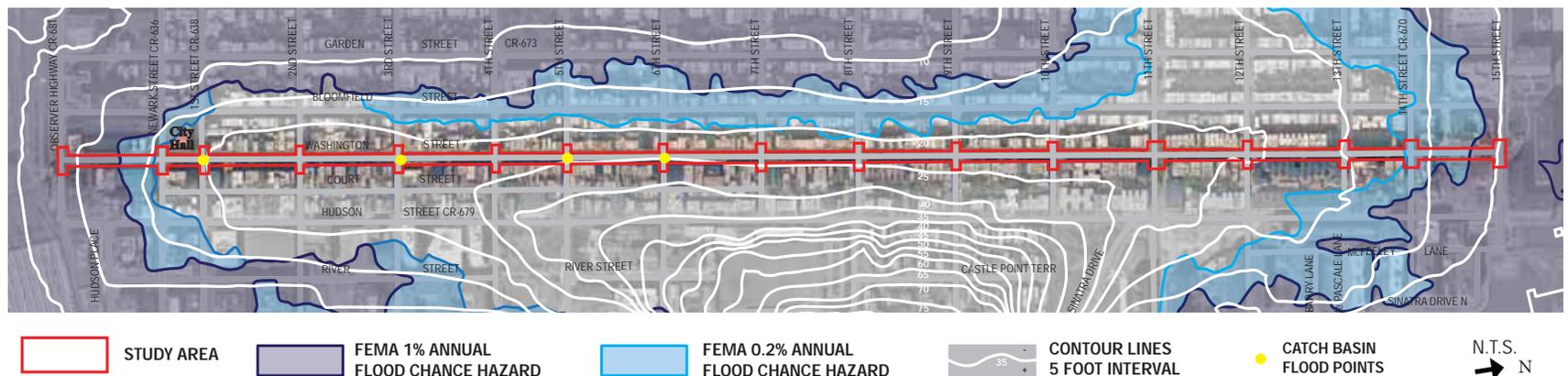
- Newark Street to 1st Street and 12th Street to mid-block between 13th Street and 14th Street have elevations of 15-20 feet above sea level and are generally free of flooding.
- The blocks from Observer Highway to Newark Street and 14th Street to 15th Street are below 15 feet, and according to 2013 FEMA flood predictions have a 0.2% - 1% chance of annual flooding.
- Some flooding may occur during large storm events in the area between 1st and 3rd Streets and there are several catch basin flood sites along Washington Street.

- According to the *Hoboken Green Infrastructure Strategic Plan* - Appendix D, there are catch basin flood points at 1st, 3rd, 5th and 6th Street along Washington Street.

Stormwater collection along Washington Street contributes to heavy stormwater concentration into the CSO, which in turn contributes to untreated outflows. Unmanaged runoff from (or traversing) Washington Street may contribute to flooding in low-lying areas of the City.

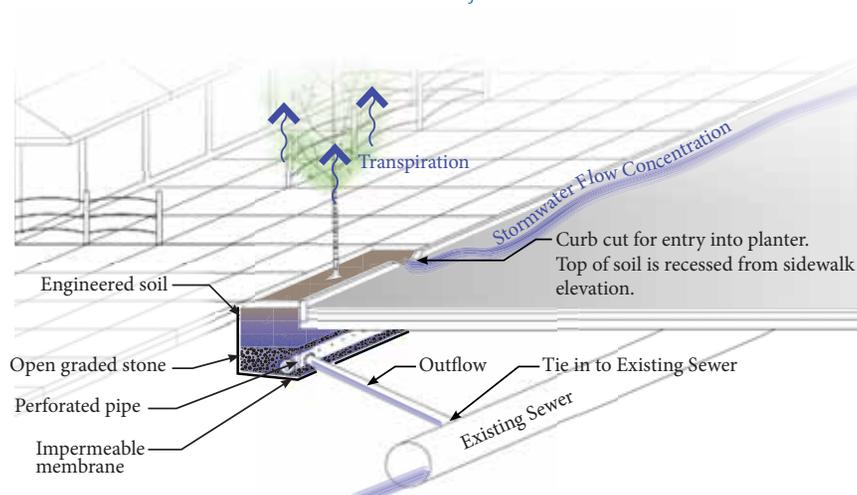
The use of green infrastructure best management practices (BMPs), which reduce immediate dependence on drainage to the combined sewer, may reduce the occurrence of untreated combined sewer outflow events and control adverse effects of runoff.

Washington Street Map of Elevation and Flooding



Map by RBA. Base: NJDOT Road Centerlines 2010; NJGIN 2012 Aerial Imagery. Data: Contours provided by City of Hoboken; Floodplains by FEMA, June 18, 2013. Catch Basin Flood Points from *Hoboken Green Infrastructure Strategic Plan* Appendix D.

Stormwater Delay Tree Pit



To date, the City of Hoboken has engaged in two strategic design studies about green infrastructure:

- *Hoboken Green Infrastructure Strategic Plan* of October 2013 through Together North Jersey,
- *Resist, Delay, Store, Discharge: A Comprehensive Strategy for Hoboken* of April 2013 through the Rebuild by Design national competition.

Both studies approach green infrastructure from the city scale, identifying green infrastructure BMPs for specific areas throughout the city. In both cases Washington Street is identified within an area that would employ BMPs to delay the concentration of stormwater flow from reaching the combined sewer system. In neither study are BMPs identified for the Washington Street 100' public right-of-way.

The strategy of delaying the concentration of stormwater is likely the most appropriate for green infrastructure design along Washington Street. The following points identify key considerations for the deployment of this strategy, targeted toward Washington Street.

- Washington Street has 195 tree pits and 46 stormwater inlets. These inlets are the access points for all collected stormwater along Washington Street to enter the combined sewer system.
- Where appropriate (see 1" = 50' plan set), tree pits and stormwater inlets can be reconstructed as stormwater delay trenches, illustrated on the following page.
- The recovery time of the sewerage treatment facility must be studied to validate the delay strategy.

Note: Infiltration strategies such as permeable pavements, rain gardens, and infiltration tree pits are not beyond the realm of possibility for Washington Street and could potentially be very effective. However, a detailed geotechnical study of the underlying soil conditions, bedrock, water table, and building foundations (which include coal vaults beneath the sidewalk) must be completed before such BMPs could be recommended due to the potential for property damage. Such a study should include borings and/or permeability tests.

Note: Additional measures that may be implemented by private developers and landowners should also be encouraged. Appropriate treatments include green roofs or stormwater planters that collect roof leader outflow.

WAYFINDING

Overview

4

Wayfinding represents a person's experience of navigating to and through a place, whether through a single building, an airport or campus, a neighborhood, or an entire city. Wayfinding aids cue people in on their location and help them navigate to other locations. Iconic landmarks and architectural styles serve as wayfinding aids, as do more intentional wayfinding elements such as gateways and directional signs. Hoboken and its residents, businesses, workers, and visitors can benefit from having a formal wayfinding system serving Washington Street and the greater City.

The following sections describe preliminary wayfinding observations and concepts as they relate to the Washington Street within the City of Hoboken.

1. **Inventory of Existing Wayfinding Elements**
2. **Wayfinding in a Broader Context**
3. **Goals and Audience for a Wayfinding System**
4. **Gateways and Major Destinations**
5. **Key Journeys/Routes**
 - 5a. **Wayfinding Journey Map -- Preliminary Concept**
6. **Type, Locations, and Messages for Wayfinding Elements**
7. **Design and Dimensioning of Wayfinding Elements**
8. **The Wayfinding Message Book**
 - 8a. **Wayfinding Message Book Map**
 - 8b. **Wayfinding Message Book Map Key**

1. INVENTORY OF EXISTING WAYFINDING ELEMENTS

There are formal wayfinding elements of various types and designs in the City of Hoboken:

- Painted "Welcome to Hoboken" gateway (applied to railroad bridge)
- Pole-Mounted "Welcome to Hoboken" gateway (representing Lackawanna Terminal architectural feature)
- "Standard" municipal directional signs (parking, library, etc.)
- Police station directional signs
- NJTransit station directional signs
- NJ Turnpike directional signs
- Port Authority signs (PATH directional signs)
- Stevens Institute directional signs
- Hudson River Waterfront Walkway trailblazers and directional signs
- Signs within and outside of Hoboken Terminal (which include the emblazoned "H")
- Signs in the 14th Street Ferry Terminal
- Banners along Washington Street
- Decorative street signs

While Hoboken Terminal and the 14th Street Ferry Terminal have formalized systems of interrelated signs within their facilities, there is no such structured wayfinding system that serves the greater City of Hoboken and its principal Washington Street spine.

Hoboken currently has a variety of signs belonging to various sign systems depending on the destination being identified (as shown on the following page). Virtually all of the signs identify a single location. In some places these signs are placed on top of each other, which leads to clutter and can confuse people. Washington Street, however, has as a unique, decorative design for its street signs and has colorful banners.



2. WAYFINDING IN A BROADER CONTEXT

By virtue of being a major destination itself and a street that people follow and cross to reach other major destinations in Hoboken, Washington Street is a logical place at which to start thinking about wayfinding. But for wayfinding to be most effective, its elements should be part of a system—they should consider streets beyond Washington Street. This system might include:

Gateway elements could welcome people into Hoboken first at main portals of entry for motorists and train passengers. Gateway elements also can identify specific districts within the City.



Directional signs can be targeted to motorists, pedestrians, and bicyclists, and point out what's coming up ahead and/or indicate where to turn.



Pedestrian-oriented elements comprised of "you are here" maps, kiosks, and other information.



3. GOALS AND AUDIENCE FOR A WAYFINDING SYSTEM

The goals of a wayfinding system must be defined clearly because they impact the locations, types, and messages of wayfinding elements. The following is a series of goals Hoboken should consider for developing a wayfinding system:

- To make visitors feel welcome and confident that they can reach their destinations.
- To announce and help direct visitors to Hoboken's major destinations.
- To help direct visitors to Hoboken's off-street parking resources, bike-share, and transit portals.
- To manage traffic circulation in order to reduce congestion on certain streets.
- To help direct visitors to points of exit as they leave Hoboken.

The needs of motorists, pedestrians, and bicyclists should be considered during the development of a wayfinding system, but ultimately the audience depends on the City of Hoboken's unique needs and priorities.

Independent institutions and facilities that would benefit from being listed on signs should be consulted during the planning stages about their signage and navigation needs. Some organizations could possibly allocate funding toward collectively implementing an integrated wayfinding system.

4. GATEWAYS AND MAJOR DESTINATIONS

There are a number of possible locations for gateway treatments in Hoboken, especially at the edges of the city and where people exit major transit portals (see example below of existing gateway feature).

Washington Street should host "special place" treatments, which could consist of a combination of elements including kiosks, landscape treatments, and public art geared toward pedestrians.

Major destinations can be grouped into five types:

- Washington Street
- Transit stations/portals

- Public parking facilities (i.e., public garages)
- Institutions (hospitals, universities)
- Waterfront promenade/parks



Each of these places generates or attracts large volumes of motorists and pedestrians. The City could expand this list and include other groups of destinations such as government facilities (City Hall, the Police Station, and the Fire Department).

5. KEY JOURNEYS/ROUTES

The map becomes a Journey Map with the placement of several layers of additional information that illustrates how people navigate through the City. (See map on the following page). The “primary route” represents the network of roads or sidewalks, depending on the mode of transportation, which people commonly use to enter the city and reach Washington Street. The pink and blue lines on the map represents possible primary routes, or journeys, which means a system of wayfinding elements could serve motorists, pedestrians, and bicyclists coming and going along these routes. “Secondary routes,” which would be confirmed after further analysis, represent roads intersecting Washington Street that connect people to major destinations. These secondary routes should also host wayfinding elements, continuing the process of navigating people to destinations.

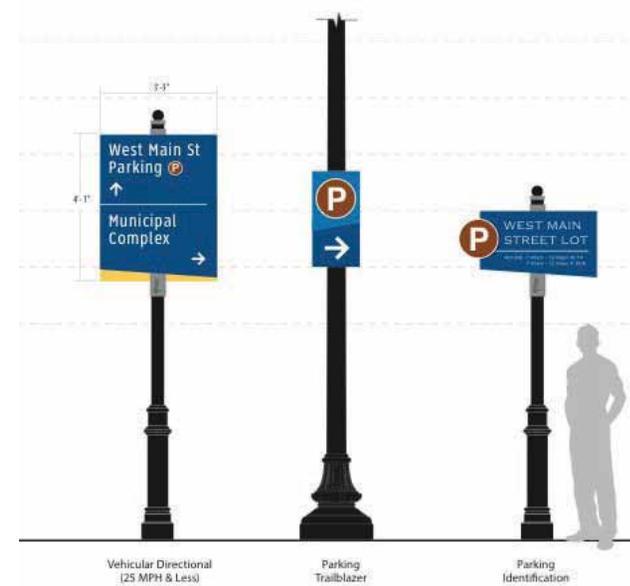
With the primary and secondary routes identified, the process of selecting locations of wayfinding elements and developing possible messages on directional signs begins.

6. TYPES, LOCATIONS, AND MESSAGES FOR WAYFINDING ELEMENTS

The Journey Map serves as the foundation for selecting locations and types of wayfinding elements along primary and secondary routes. Washington Street would host a variety of wayfinding elements: vehicular-oriented signs, pedestrian-oriented signs, bicycle-oriented signs, gateway elements, kiosks, “special place” treatments, and community posting boards.

Washington Street has several bus stops that could provide surfaces for mounting wayfinding elements such as transit maps or pedestrian-focused maps. Utilizing existing hardware helps reduce the potential for clutter. Pedestrian signals could have signs mounted on their rear casings.

The graphic to the right shows several different types of wayfinding sign concepts for Lansdale, PA that coordinate the navigation of motorists to the borough’s parking areas. Hoboken should use a similar system of directional, trailblazer, and identification signs to direct motorists to parking areas.



The following types of elements would be part of a wayfinding system for Washington Street and Hoboken:

- Gateway Sign
- Gateway Architectural/Landscape Treatment
- Direction Sign
- Trailblazer Sign
- Identification Sign
- “Special Place” Treatments



- Kiosks / Community Boards
- Banners
- Decorative Street Signs
- Non-Traditional Wayfinding Elements (e.g., pavement markings, etc.)

Some existing directional signs, such as those for the light rail stations, should be included in the wayfinding plan. Once appropriate signs locations for each type of sign are pinpointed on the Journey Map, the messages need to be determined (see Message Book).

7. DESIGN AND “DIMENSIONING” OF WAYFINDING ELEMENTS

The design of wayfinding elements—especially signs—involves selecting colors, materials, and typefaces and making decisions on their overall aesthetic. The emblazoned “H” placed on signs in Hoboken Terminal could be an element that repeats on signs in the rest of the city.



The City did commission a logo by Lance Wyman that was placed on the sign panels and directories in several locations. The firm also designed an ornamental silhouette of the Lackawanna station clock tower that makes for an iconic gateway element.

The dimensions of wayfinding signs and the size of typefaces depend on whether the target is motorists, pedestrians, bicyclists, or a combination of these. MUTCD standards, which govern content (including messages) and design parameters for community wayfinding systems, should be consulted.

Gateway elements can be signs, but they can also be specially-designed architectural and landscape features, as is the gateway into Hoboken from Jersey City along Newark Avenue. They can also include artist-designed elements.

8. THE WAYFINDING MESSAGE BOOK

A “message book” represents the full collection of possible places, routes, destinations (i.e., messages), that could be listed on directional signs. In the final version of a message book, each wayfinding element would be numbered or coded and the messages that should be listed on each element identified. The numbers or codes would correspond with locations pinpointed on a map of the city and its environs.

The messages themselves should make sense in the context of a system of directional signs. For example, the messages “Waterfront” or “Waterfront Parks” might be placed on signs that are located closer to the entrance to the City whereas signs located closer to destinations should have messages that indicate specific waterfront amenities or parks, such as “Pier C Park.”

The Wayfinding Message Book Map is located on the following page. Keyed to the tables that follow it, the Message Book Map shows the location, type, and purpose of wayfinding elements which would sensibly enhance navigation along Washington Street.

**WAYFINDING
MESSAGE BOOK MAP
PRELIMINARY CONCEPT**
City of Hoboken, NJ
(Key on following page)

LEGEND

-  VEHICULAR DIRECTIONAL
-  PARKING TRAILBLAZER
-  PEDESTRIAN DIRECTIONAL (double-sided)
-  PEDESTRIAN INFORMATION PANEL
-  EXISTING GATEWAY FEATURE



WAYFINDING MESSAGE BOOK MAP KEY

Sign No.	Location	General Direction	Type	Purpose
1n	Observer Hwy near intersection of Newark St	Northbound	Vehicle Directional	Point motorists toward Washington St and Hoboken Terminal just before decision point at Observer Hwy and Newark Ave
2n	Observer Hwy near intersection of Willow Ave	Northbound	Vehicle Directional	Continue to point motorists toward Washington St and Hoboken Terminal
3n	Observer Hwy at intersection of Bloomfield St	Northbound	Vehicle Directional	Indicate turn onto Bloomfield St for parking; continue to point motorists toward Washington St and Hoboken Terminal
4n	Observer Hwy at intersection of Washington St	Northbound	Vehicle Directional	Indicate turn onto Washington St; continue to point motorists toward Washington St and Hoboken Terminal
5n	Washington St at intersection of Third St	Northbound	Vehicle Directional	Direct motorists to turn down 3rd St as first step for reaching parking located along Hudson St; direct motorists to riverfront and pier parks.
6n	Washington St at intersection of 6 th St	Northbound	Vehicle Directional	Direct motorists to turn right to go to Stevens and Frank Sinatra Drive; direct motorists ahead to the ferry.
7n	Washington St at intersection of 14 th St	Northbound	Vehicle Directional	Direct motorists toward Weehawken; Ferry to Manhattan
1s	Willow Ave at intersection of 4th St	Southbound	Vehicle Directional	Direct motorists to turn down 15th St to reach Washington St and toward Ferry to Manhattan; direct motorists to continue on Willow Ave for the Hospital
2s	14th St at the intersection of Garden St	Southbound	Vehicle Directional	Direct motorists to continue straight to Washington St
3s	14 th St at intersection of Washington St	Southbound	Vehicle Directional	Direct motorists to turn left onto Washington St shops and restaurants
4s	Washington St at intersection of 11th St	Southbound	Vehicle Directional	Direct motorists to Hoboken Terminal (bus, PATH, train)
5s	Washington St at intersection of 6th St	Southbound	Vehicle Directional	Direct motorists to turn left for Stevens and continue straight for Hoboken Terminal
6s	Washington Street between 1st and 2nd Street	Southbound	Vehicle Directional	Direct motorists to Hoboken Terminal ahead

Sign No.	Location	General Direction	Type	Purpose
1i	Near PATH station entrances/exits	n/a	Information Panel	Orients passengers that have just disembarked from the PATH train (or other modes of transit) and have just exited the portal
2i	Sidewalk SE corner of intersection Newark St and Washington St	n/a	Information Panel	Orients pedestrians that have just reached Washington St to various destinations along and around Washington St
3i	Sidewalk corner of Washington St and 4 th St	n/a	Information Panel	Continue to orient pedestrians who have traveled along Washington St up to 4th St
4i	On sidewalk at the corner of Washington St and 8th St	n/a	Information Panel	Continue to orient pedestrians who have traveled along Washington St up to 8th St
5i	On sidewalk at the corner of Washington St and 11th St	n/a	Information Panel	Continue to orient pedestrians who have traveled along Washington St up to 11th St
6i	On sidewalk at the corner of Washington St and 14th St	n/a	Information Panel	Orients passengers that have just disembarked from the ferry and have just exited the portal
1	Near the NW and NE corners of River St and Hudson St	Both; double-sided	Pedestrian Directional	Direct transit users who have disembarked in Hoboken toward Washington St; reverse side directs pedestrians to Hoboken Terminal
2	Near the SW and SE corners of River St and Newark St	Both; double-sided	Pedestrian Directional	Continue to direct pedestrians to Washington St; reverse side continues to direct people to Hoboken Terminal
3	Near the SE corner of Hudson St and Newark St	Both; double-sided	Pedestrian Directional	Continue to direct pedestrians to Washington St; reverse side continues to direct people to Hoboken Terminal
4	Near the SW corner of Hudson St and Newark St	Both; double-sided	Pedestrian Directional	Continue to direct pedestrians to Washington St; reverse side continues to direct people to Hoboken Terminal
5	On Washington St between 1st and 2nd St	Both; double-sided	Pedestrian Directional	Direct pedestrians to various destinations along and around Washington St
6	On Washington St between 2nd and 3rd St	Both; double-sided	Pedestrian Directional	Direct pedestrians to various destinations along and around Washington St
7	On Washington St between 3rd and 4th St	Both; double-sided	Pedestrian Directional	Direct pedestrians to various destinations along and around Washington St
8	On Washington St between 9th and 10th St	Both; double-sided	Pedestrian Directional	Direct pedestrians to various destinations along and around Washington St
9	On Washington St between 12th and 13th St	Both; double-sided	Pedestrian Directional	Direct pedestrians to various destinations along and around Washington St
10	On 14th St between Hudson and Washington St	Both; double-sided	Pedestrian Directional	Direct pedestrians to continue ahead and left for Washington St

PHASING & COST ESTIMATE

INTRODUCTION

The redesign of Washington Street has many different types of components that together make up the conceptual vision from building face to building face and from Observer Highway to 14th Street. Some will require preliminary investigation to assess the level of effort, approach and coordination required to implement design solutions. An example is the use and location of tree pits designed for stormwater infiltration; a geotechnical study will be necessary to confirm the location of coal vaults underlying sidewalks that may impact tree pit locations. Coordination with PSE&G will be necessary to replace the gas main and lighting. Other redesign components may be straightforward, for example, securing and installing “Big Belly” trash receptacles.

The table below illustrates the steps to completion in two phases, the “pre-construction” phase, which will advance the concept design through preliminary / final design and engineering, and the “construction” phase. The pre-construction phase includes steps associated with upgrading and replacing utilities as well as final design and engineering. The construction phase is the implementation of the design and engineering plans.

The table is intended to illustrate the logical order of the steps to advance the concepts to completion and the approximate length of time that will be required for each step. The order and duration of implementation tasks are based on the assumptions listed at the end.

As the project progresses through the next stages of design and engineering, other phasing options might be considered, for example, to take advantage of unanticipated funding opportunities. Concurrent and related projects might incorporate Washington Street design elements, such as

initiatives to install street trees, wayfinding signs, or green infrastructure components.

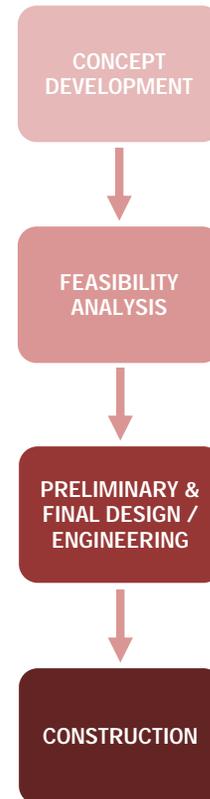
It would be advantageous for the City to develop Performance Measures to document progress. Current federal funding sources emphasize the need and importance of developing Performance Measures and tracking change. For example, legislation funding surface transportation programs (MAP-21) requires performance based programs for Highway Safety Improvement Program (HSIP) projects.

It would also be advantageous for the City to document existing conditions as a baseline for comparison after implementation. Before and after data collection (related to varied activities such as traffic volumes, speeds, crashes, bicycle use, transit, double-parking, pedestrian crashes, retail sales, operational costs for lighting, etc.) that quantify any changes in conditions, costs, etc., as a result of the Plan’s implementation provides strong justifications for funding requests. Data-driven priorities and projects align with state and federal program requirements. For example, New Jersey’s Strategic Highway Safety Plan is data driven as required by new national safety performance measures.

The Cost Estimate and Assumptions spreadsheet that follows the Project Implementation and Phasing Plan table shows order-of-magnitude cost estimates per task and the total cost of \$14 million to implement the redesign concept.

Projects as extensive and transformative as the redesign of Washington Street typically have multiple funding sources and may be constructed in multiple stages. The construction cost breakdown can be further refined as the City explores various funding and grant programs. This chapter also lists some of the potential funding sources.

PROJECT FLOWCHART



Project Implementation and Phasing Plan

Note: All roadbed resurfacing assumed to occur after PSE&G Gas Line Replacement and/or other coordinated underground utilities replacements.				Pre-construction Phase								Construction Phase																		
Category	Implementation	Completion Notes	Refer to	Month																										
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20							
Utilities - PSE&G to Perform**	U1 - Gas main replacement 2014 (Observer - 6th). U2 - Gas replacement 2015 (6th - 14th).		2014 City of Hoboken Road Resurfacing Program & PSE&G Gas Line Replacement map	U1-U2 predicted completion September 30, 2015																										
Lighting - PSE&G to Perform**	L1 - Field verify condition pedestal foundations, poles, underground conduit, and wiring. L2 - Update and replace existing lighting as per L1.		Design Details: <i>Street Lighting</i>	L1	L2																									
Green Infrastructure Study	G1 - Geotechnical study to test permeability, water table, and impact on structures, coal vaults. G2 - BMP concept refinement and site selection.		Design Details: <i>Green Infrastructure</i>	G1	G2																									
Final Design	D1 - Final Survey/Preliminary & Final Design/Construction Documents Phase	Integrate results of G1, G2		D1																										
Curb Extensions & Traffic Signals**	C1 - Construct curb extensions, curb ramps, green infrastructure BMPs, install traffic signals to include arm mounted roadway lighting.	Begin at completion of D1	Concept Plans: Design Details: <i>Green Infrastructure, Traffic Signals, Street Lights</i>																											
Sidewalks & Tree Pits	S1 - Pave sidewalks and amenity strip; Refurbish Tree pits.	Begin at completion of D1	Design Details: <i>Sidewalks</i>																											
Furnishings	F1 - Install benches*, bike racks*, BigBelly receptacles*, bus shelters, wayfinding signs.*	Integrate with final aspects of C1 and S1	Design Details: <i>Benches, Bike Racks, Trash Receptacles, Bus Shelters; Appendix B: Wayfinding</i>																											
Roadway Surfacing	R1 - Remove paver crosswalks, resurface roadway with asphalt, adjust crown to center of travel lanes.	Begin at completion of all U1, U2, G1, G2, D1, C1, S1	Design Details: <i>Crosswalks, Protected bicycle lane (PBL)</i>																											
Roadway Striping (Parking & Loading**)	R2 - Restripe roadway for traffic, crosswalks, PBL, loading, and parking (to include back-in angled*), mark & number spaces.	Begin at Completion of R1	Design Notes: <i>Back-in Angled Parking, Parking & Loading; Design Details: Crosswalks, PBL</i>																											

*Can be completed prior to or independent of overall construction effort (though this may not be optimal).
 **Refer to next page on the Assumptions for the individual items

ASSUMPTIONS

Regarding Work on Underground Utilities:

RBA was informed of meetings between the City of Hoboken and utilities providers to discuss the replacement of underground utilities. RBA provided the City with utilities mapping and intelligence received over the course of this project. The City of Hoboken did not disclose a formal schedule to RBA of the planned utilities replacements and subsequent necessary resurfacing. RBA has made its best assumption regarding the schedule of utilities replacement along Washington Street based on an article and map found on the City's website: <http://www.hobokennj.org/news/page/2/>

Regarding Work on Lighting:

The City of Hoboken requested at the July 8, 2014, meeting between RBA and the Hoboken Historic Preservation Commission that RBA investigate and verify the veracity of re-using existing pedestal foundations and light poles along Washington Street. RBA worked with an agent of the City's lighting supplier (PSE&G) to verify that from a photometric standpoint, this approach is valid (as described in the *Chapter 3, Concept Design Details*). The physical/structural condition of lighting infrastructure slated for re-use should be field verified by the supplier prior to installation. The City will be able to switch to LED fixtures, which will cut energy usage and greenhouse gas emissions.

Regarding Green Infrastructure:

In the course of design, RBA has advocated the use of stormwater planters which tie into and ultimately drain into

existing sewer infrastructure. These would benefit the overall stormwater system by delaying the concentration of stormwater flow. The City of Hoboken has expressed interest in stormwater planters and other BMPs, which infiltrate stormwater into the subgrade. Use of infiltration BMPs along Washington Street will require diligent geotechnical study of the subgrade conditions to test for permeability, verify water table level, and analyze impacts on surrounding structures (which include underground coal storage vaults).

Regarding Curb Extensions:

As per the City's memo of June 11, 2014, all curb extensions will be constructed of concrete.

Regarding Traffic Signals:

Traffic signal poles on the west side of Washington Street are to be installed in the newly constructed curb extensions. These locations allow for the use of aluminum poles and mast arms, which have a limit of 25' in reach when mounted to 4' foundations, while placing pedestrian heads well in the view of pedestrians in the crosswalk. All traffic signals are pre-timed for bicycle speeds. Bicycle-only signals are not included in design because they would require a separate signal phase for bicycles only. Traffic signal battery backup is 6 hours when new, and traffic signals will contain generator plugs in the controller cabinet.

Regarding Lead Times:

The Project Implementation and Phasing Plan accounts for the time to produce a final design for Washington Street and the time to physically construct the design elements. Lead times, such as those needed to procure materials, fixtures, and furnishings are not accounted for.

Regarding Parking & Loading:

Parking and loading recommendations may be revised in light of findings and recommendations from the City of Hoboken Parking Master Plan, which will be completed and available after this project.

COST ESTIMATE & ASSUMPTIONS

ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COSTS CONCEPT PLAN for the Washington Street "Complete Street" Redesign - City of Hoboken, NJ October 13, 2014

Work Type	Unit Cost	Quantity	Item Cost	Totals
1. Roadway Pavement				
Includes full depth reconstruction at all crosswalks		SY		
11th Street Intersection and 1 ft along proposed curb	\$ 50	4,193	\$ 209,650	
Includes milling, overlay for remainder	\$ 15	33,646	\$ 504,690	
Excavation		CY		
Full Depth Pavement	\$ 40	1,398	\$ 55,920	
Curb	\$ 40	581	\$ 23,240	
Sidewalk (Replace Existing)	\$ 40	3578	\$ 143,120	
Sidewalk (At Buffer)	\$ 40	1,532	\$ 61,280	
Pavement Striping and Markings		LF		
Traffic Stripes, 4" for centerline and parking (Epoxy Resin)	\$ 1.00	17,574	\$ 17,574	
Traffic Markings, Lines, Stop Bars, Cross Walks (Thermoplastic)	\$ 1	25,240	\$ 25,240	
Traffic Markings, Symbols (Thermoplastic)	\$ 5.00	11,200	\$ 56,000	
Epoxy Colored Surface Treatment		SF		
Similar to the recent Newark green bike lane treatment	\$ 6.50	44,628	\$ 290,082	
Orange Bus Stop treatment	\$ 6.50	12,000	\$ 78,000	
Drainage		Each		
approx. 3B inlet per intersection	\$ 3,500.00	45	\$ 157,500	
approx. 200 ft of 15" Reinforced Conc. pipe per intersection	\$ 80.00	3,000	\$ 240,000	
Concrete Curb		LF		
Curb for Concrete Buffer	\$ 30.00	8,918	\$ 267,540	
			Roadway Subtotal:	\$ 2,129,856
			+ Contingencies	\$ 2,768,813
2. Traffic Signals / Intersections				
Traffic Signals / Lighting		Each		
New Traffic Signals at Each Intersection (excludes 15th Street)	\$ 175,000	16	\$ 2,800,000	
No decision necessary - fixed time at all locations				
No specific bicycle exclusive signal heads				
due to minimal volume and conflicts anticipated				
Curb Extensions		LF		
Curb for Extensions	\$ 30	6,770	\$ 203,100	
Sidewalk at Curb Extensions	\$ 60	3,385	\$ 201,300	
Green Infrastructure - 15 locations, along curb extensions	\$ 25,000	15	\$ 375,000	
			Traffic Signals Subtotal:	\$ 3,579,400
			+ Contingencies	\$ 4,663,220
3. Lighting				
Replace Light Fixtures on Existing Poles		each		
(by PSE&G - upgrade existing light fixtures to LED)	\$ -	0	\$ -	
Refurbish Existing Poles		each		
Poles to be repainted, replaced if necessary	\$ 500	120	\$ 60,000	
Street Lights (to be installed by PSE&G)		each		
As approved by Historic Commission	\$ 4,000	92	\$ 368,000	
			Lighting Subtotal:	\$ 428,000
			+ Contingencies	\$ 556,400
4. Sidewalks & Tree Pits				
Replace entire sidewalk (Concrete)		SY		
7 locations, double sided	\$ 60	32,200	\$ 1,932,000	
Sidewalk at Buffer	\$ 60	1,240	\$ 74,400	
Detachable warnings	\$ 235	220	\$ 51,700	
Street Trees and Tree Pits		each		
To be located along curb extensions or mid block	\$ 10,000	30	\$ 300,000	
			Sidewalk Subtotal:	\$ 2,358,100
			+ Contingencies	\$ 3,065,530
5. Streetscape				
Wayfinding & Message Boards		each		
7 locations, double sided	\$ 16,000	7	\$ 112,000	
Green Infrastructure (Stormwater Planters)		each		
15 locations, mid block	\$ 25,000	15	\$ 375,000	
Street Furniture		LS		
Benches, trash receptacles	\$ 560,000	1	\$ 560,000	
Bike Racks	\$ 300	90	\$ 27,000	
Hoboken custom rack	\$ 20,000	14	\$ 280,000	
Bus Shelters				
			Streetscape Subtotal:	\$ 1,354,000
			+ Contingencies	\$ 1,760,200
6. Smart/ Miscellaneous				
Smart Street Technology (Features associated with Intelligent Lighting (LED), Signals, Charging Stations, Technology & Security)		each		
		1	\$ 1,000,000	
			Smart/ Miscellaneous Subtotal:	\$ 1,000,000
			+ Contingencies	\$ 1,300,000
			Total:	\$ 14,104,163
				<i>(Say \$14,000,000)</i>

Notes:
Each Subtotal includes contingencies (at ~ 20%) and Maintenance of Traffic (at ~ 10% of total construction cost)
Engineering Design and Construction Inspection services are not included as part of cost estimate. The costs presented represent a concept-level estimate and a 20% contingency has been included to account for unknown elements that will be finalized during subsequent stages of design.
The construction cost estimate for the proposed improvements was prepared utilizing the NIDOT bid price database.

FUNDING SOURCES

In the current economic climate, it is especially important for the City to explore all avenues of funding support. There are a variety of funding sources available for bicycle and pedestrian improvements including federal and state supported supplemental to municipal investment. Other non-governmental sources may come from the private sector such as revenue from advertising and foundation grants.

It should be noted that funding programs often change or are eliminated, while new sources become available. An example is the TIGER Grant Program (Transportation Investment Generating Economic Recovery). Since 2009, Congress has dedicated more than \$4.1 billion for six rounds to fund projects and 72 new grants were awarded in 2014. New funding for the popular TIGER Grant Program is dependent on federal budget authorizations. Proposed funding for a 2015 round under the proposed "GROW AMERICA" Act would double the funding available. This legislation is currently under review.

The following is a compilation and brief description of sources of funding that have been, or could be used to fund pedestrian and bicycle improvements in New Jersey. The list is not exhaustive, but it identifies some of the funding sources that can be utilized to fund bicycle and pedestrian planning, engineering, and project development activities, as well as construction. Some funding sources may also be used to fund programmatic activities. The list below summarizes potential funding sources, which are described in more detail below.

Federal

1. Transportation Alternatives
2. Highway Safety Improvement Program (HSIP)

3. Congestion Mitigation and Air Quality Program (CMAQ)
4. Associated Transit Improvements
5. Community Development Block Grants (CDBGs)
6. Green Infrastructure and Stormwater Management Sources

State and Local

7. NJDOT Bikeway Grant Program
8. NJDOT Safe Streets to Transit (SSTT) Program
9. NJDOT Centers of Place Grant Program
10. NJDOT Municipal Aid
11. NJDOT Bicycle and Pedestrian Local Transportation Planning Assistance Program (LTPA)
12. New Jersey Historic Trust Funding Programs

Others to Consider

13. Foundations and Company Grants
14. Bond Referendum
15. Local Private-Sector Funding

FEDERAL FUNDING OPPORTUNITIES

1. The Transportation Alternatives Program (TAP) is the largest federal source for trail and greenway funding under MAP-21, the most recent federal transportation funding law. Transportation Alternatives is a combination of two core active transportation programs from SAFETEA-LU—Transportation Enhancements and Safe Routes to Schools (SRTS). While

Transportation Alternatives projects are federally funded, the funds are administered by the New Jersey Department of Transportation and the state's Metropolitan Planning Organizations (MPOs). Project sponsors are generally responsible for 20 percent of the project's cost. Funding categories include:

- Bicycle and pedestrian facilities
- Safe routes for non-drivers
- Environmental mitigation activity including stormwater mitigation
- Community improvement activities including vegetation management, historic preservation, archeological activities related to transportation projects, and boulevard construction

2. The Highway Safety Improvement Program (HSIP) is administered by FHWA to fund any project on a public road, trail or path that is included in a state's Strategic Highway Safety Plan and corrects a safety problem such as an unsafe roadway element or fixes a hazardous location. Eligible projects include, but are not limited to the following: intersection improvements, construction of shoulders, traffic calming, data collection, and improvements for bicyclists, pedestrians, and individuals with disabilities.

3. Congestion Mitigation and Air Quality Program (CMAQ) is jointly administered by FHWA and the Federal Transit Administration (FTA). The NJTPA has established the CMAQ Local Mobility Initiatives Program to promote a variety of initiatives to lessen the level of pollutants and greenhouse gases generated through the use of fossil fuels including ridesharing, transit usage, travel demand management and traffic mitigation projects. Proposals must implement strategies and policies in

the Regional Transportation Plan, Plan 2035. As of May 2014, NJTPA approved four projects to receive a total of \$3.3 million in federal CMAQ funding.

4. Transit Alternatives Program, formerly known as Transit Enhancements, is a program that requires at least one percent of transit expenditures for urbanized areas of more than 200,000 people (known as 5307 formula funds) go to projects that improve access to transit service. Many of these projects focus on cycling and walking. Eligible associated transit improvements include landscaping and streetscaping, including benches, trash receptacles, and street lights; pedestrian access and walkways; bicycle access, including bicycle storage facilities and installing equipment for transporting bicycles on public transportation vehicles; and signage.

5. Community Development Block Grants (CDBGs) are provided by the U.S. Housing and Urban Development (HUD) to communities for a wide range of community planning initiatives including neighborhood revitalization, economic development and improvement of community facilities and services. These grants require no match of funds or services from the community. In New Jersey, HUD distributes the funds directly to the more populous municipalities, with more than 50,000 people.

6. Green Infrastructure and Stormwater Management Sources. The Design Concept Plan proposes stormwater management and pollution by incorporating green infrastructure. As a strategy for compliance with the Federal Clean Water Act, green infrastructure, including such strategies as bioretention, vegetated buffers, and infiltration swales, and urban forestry can serve the environmental, social, and economic missions of the city with low lifecycle costs.

Funding for the improvement of water quality through the use of green infrastructure is available from several sources. The federal Environmental Protection Agency awards funding for green infrastructure through a number of programs, including Urban Waters, the EPA Clean Water Act Nonpoint Source Grant, the EPA Clean Water State Revolving Fund, and the EPA Community Action for a Renewed Environment Grant. Additionally, because green infrastructure serves environmental purposes beyond stormwater management and may include the planting of trees as a management strategy, sources such as the U.S. Forest Service Urban and Community Forestry Challenge Cost Share grant program and the New Jersey Department of Environmental Protection Green Communities Grant may also be pursued as viable funding opportunities.

STATE AND LOCAL FUNDING OPPORTUNITIES

7. The NJDOT Bikeway Grant Program provides funds to counties and municipalities to promote bicycling as an alternate mode of transportation in New Jersey. A primary objective of the Bikeway Grant Program is to support the State's goal of constructing 1,000 new miles of dedicated bike paths (facilities that are physically separated from motorized vehicular traffic by an open space or barrier either within the highway right-of-way or within an independent right-of-way). In an effort to establish regionally connected bicycle networks, this program is available to every municipality and county throughout New Jersey. Although priority will be given to construction of new bike paths, the proposed construction or delineation of any new bicycle facility will be considered. In the 2014 program, three projects in New Jersey were awarded a total of \$1,000,000.

8. NJDOT Safe Streets to Transit (SSTT) program provides funding to counties and municipalities in improving access

to transit facilities and all nodes of public transportation. The objectives of the SSTT program are:

- To improve the overall safety and accessibility for mass transit riders walking to transit facilities.
- To encourage mass transit users to walk to transit stations.
- To facilitate the implementation of projects and activities that will improve safety in the vicinity of transit facilities (approximately one-half mile for pedestrian improvements).

In 2014, the SSTT Program awarded \$1,000,000 to six projects. Projects include installation of a HAWK signal, pedestrian safety improvements, sidewalk improvements, and intersection improvements.

9. NJDOT Centers of Place Grant Program. The funding from the Center of Place Grant program is meant to help communities in New Jersey make non-traditional transportation improvements that are meant to aid in managing growth. These include traffic calming improvements, bicycle lanes or modifications to existing roadways to accommodate bicycles, bicycle lockers at transportation facilities, retail complexes and public buildings, mid-block connections/paths to ease bicycle and pedestrian circulation, and strategies which enable mixed use of a "Main Street" as both public space and a transportation link. Other possible projects that could benefit pedestrians or bicyclists and that can be funded through this program include signage for downtown circulation and street side landscaping.

The grants can be used for project-related activities including preliminary or final design and/or construction, including construction inspection and material testing according to the

Transportation Trust Fund Authority Act. As an example, in 2011, Jersey City received \$300,000 for their Newark Avenue Streetscape project.

10. Under NJDOT Municipal Aid grant program, each county is apportioned a share of the total funding based on population and the number of local centerline miles. Municipalities compete for portions of their county's share. NJDOT provides 75 percent of the grant amount when a municipality awards a contract and the remaining 25 percent upon completion of the project.

11. The NJDOT Bicycle and Pedestrian Local Transportation Planning Assistance Program (LTPA) provides professional transportation and land use planning consulting services to municipalities desiring to promote the Department's Smart Growth policy and NJ's State Development and Redevelopment Plan. Municipalities are able to develop or update local circulation elements, conduct downtown traffic calming and parking management studies, develop access management plans, and plan for improved bicycle, pedestrian and local transit services.

12. The NJ Historic Trust Funding Programs include the Garden State Historic Preservation Trust Fund, the Cultural Trust Capital Preservation Grant Program, matching grants from the 1772 Foundation, the Discover NJ History License Plate Fund for Heritage Tourism, the Revolving Loan Fund, and the Emergency Grant and Loan Fund. The purpose of the program is to provide matching grants or low-interest loans for preservation planning and capital projects to stabilize, repair, restore and rehabilitate historic property.

PRIVATE AND NON-PROFIT FUNDING SOURCES

13. Foundation and Company Grants sometimes provide grants for bicycle facilities, open space preservation, community development and community health. Below are a few examples of grants from private sources:

- The Geraldine R. Dodge Foundation offers general operating or project-specific support to organizations, including the use of the arts to revitalize public places and natural spaces.
- The Bikes Belong coalition makes grants to bike advocacy and facility-building projects.
- The Conservation Alliance, a group of more than 180 outdoor businesses including REI, Patagonia, The North Face, Kelty and Burt's Bees, disbursed \$1.3 million worth of grants in 2012, with a focus on habitat conservation and recreation.
- The Walmart Foundation provides grants to local communities and nonprofit organizations. These grants range from \$250 to \$5,000 and are awarded through each Walmart and Sam's Club store.

14. Bond Referendum - Communities across the nation have successfully placed propositions on local ballots to support bicycle and pedestrian facilities. The Charlotte-Mecklenburg County, NC area passed four consecutive referendums that generated more than \$3 million for greenways.

15. Local Private-Sector Funding - Local industries and private businesses may agree to provide support for bicycle and pedestrian facilities through reductions in the cost of materials; advertising at bus stops may provide income to cover maintenance or other amenities.

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APPENDIX

Appendix A: Angle-Parking Study

Appendix B: Turning Templates

Appendix C: Pavement Coring Summary

Appendix D: Public Outreach

Appendix E: Existing Street Furnishings Inventory

Supporting Technical Memoranda published under separate cover:

- Existing Conditions Report
- Parking Analysis Summary
- Traffic Count Results and Traffic Analysis Summary
- Concept Alternatives Analysis Summary
- Pavement Coring Analysis

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APPENDIX A

Angle-Parking Study: Options

The publication "Dimensions in Parking, 5th Edition" recommends the use of a worst case vehicle with dimensions of 6'7" x 17'3" and wheel base of 10 feet for design purposes. This roughly equates to a Ford Expedition SUV. Using this vehicle, it was verified by the program AutoTurn that back-in angled parking maneuvers could be completed from an 11' travel lane.



	<p>45° Back-in Angle Parking (Standard Cars) w/ Shared Lane Southbound and Cycle Track Northbound</p>	<p>45° Back-in Angle Parking (Compact Cars) w/ Shared Lane Southbound and Cycle Track Northbound</p>	<p>45° Back-in Angle Parking w/ Shared Lane Markings in Both Directions</p>	<p>45° Back-in Angle Parking Southbound and Parallel Parking Northbound with Two-way Cycle Track</p>	<p>36° Back-in Angle Parking w/ Shared Lane Markings Southbound and Cycle Track Northbound</p>	<p>30° Back-in Angle Parking w/ Shared Lane Markings Southbound and Cycle Track Northbound</p>
PROS	<ul style="list-style-type: none"> Maintain parking capacity Add shared lane southbound Add cycle track northbound 	<ul style="list-style-type: none"> Increase parking capacity Add shared lane southbound Add cycle track northbound 	<ul style="list-style-type: none"> Maintain parking capacity Add shared lanes northbound and southbound Increase parking and lane dimensions to eliminate encroachment associated with back-in angle parking 	<ul style="list-style-type: none"> Add cycle track in both directions Obvious continuity with proposed Downtown design for Washington Street Increase parking and travel lane dimensions to eliminate encroachment associated with back-in angle parking 	<ul style="list-style-type: none"> Add shared lane southbound Add cycle track northbound 	<ul style="list-style-type: none"> Add shared lane southbound Add cycle track northbound
CONS	<ul style="list-style-type: none"> Constricted roadway Vehicles encroach upon centerline during parking maneuver Parked vehicles encroach upon cycle track buffer 	<ul style="list-style-type: none"> Northbound side only accommodates compact cars No legal definition of "compact cars" makes enforcement impossible Constricted roadway Vehicles encroach upon centerline during parking maneuver Parked vehicles encroach upon cycle track buffer 	<ul style="list-style-type: none"> Lose cycle track Discontinuity with proposed Downtown design for Washington Street 	<ul style="list-style-type: none"> Lose 74 parking spaces (24% of capacity) 	<ul style="list-style-type: none"> Lose 45 parking spaces (14% of capacity) Vehicles encroach upon centerline during parking maneuver Parked vehicles encroach upon cycle track buffer 	<ul style="list-style-type: none"> Lose 85 parking spaces (27% of capacity) Akward/unproven parking angle

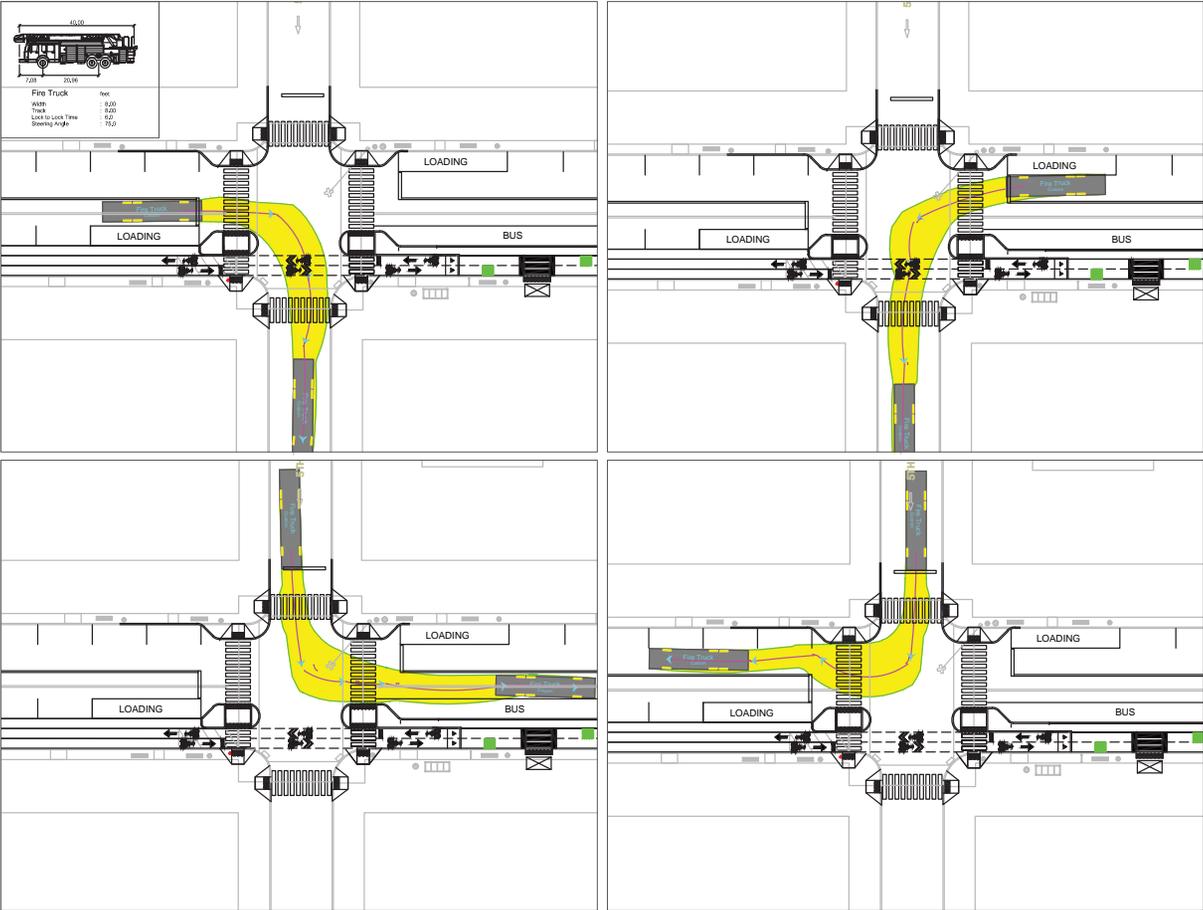
Angle-Parking Study: Parking Counts

Block	45° Front-in Angle Parking (Existing)	45° Back-in Angle Parking with Shared Lane Southbound and Cycle Track Northbound	45° Back-in angle with Standard Dimensions on Southbound Side and Compact Car Dimensions on Northbound Side	45° Back-in Angle Parking with Shared Lane Markings in Both Directions	45° Back-in Angle Parking on West Side with Parallel Parking on East Side and Two-way Cycle Track	36° Back in Angle Parking with Shared Lane Southbound and Cycle Track Northbound	30° Back-in angle with Share Lane Southbound and Cycle Track Northbound
8 th -9 th	60	60	61	60	47	49	42
9 th -10 th	46	46	47	46	36	39	33
10 th -11 th	58	58	60	58	45	49	42
11 th -12 th	38	38	39	38	34	35	30
12 th -13 th	57	57	58	57	45	48	41
13 th -14 th	18	18	18	18	3	18	15
14 th -15 th	36	36	39	36	29	30	25
Total Spaces	313	313	322	313	239	268	228
Net Loss	0	0	7 to 9	0	(74)	(45)	(85)
% Loss	0	0	2%	0	-24%	-14%	-27%
Pros	Existing	Maintain parking capacity; add shared lane and cycle track	Add shared lane and cycle track; Add 7 compact car parking spaces on northbound side; Acceptable roadway dimensions	Maintain parking capacity; add shared lanes; increase parking and roadway dimensions for better function	Add cycle track in both directions; increase parking and roadway dimensions for better function	Add shared lane and cycle track	Add shared lane and cycle track
Cons	Existing	Constricted roadway; encroachment of centerline during parking maneuver; encroachment of buffer by parked vehicles	Northbound side only accommodates compact cars; No legal definition of "compact car" makes enforcement impossible	Lose cycle track	Lose 74 parking spaces	Lose 45 parking spaces; constricted roadway; possible encroachment of centerline during parking maneuver; possible encroachment of buffer by parked vehicles	Lose 85 parking spaces; awkward/unproven parking angle

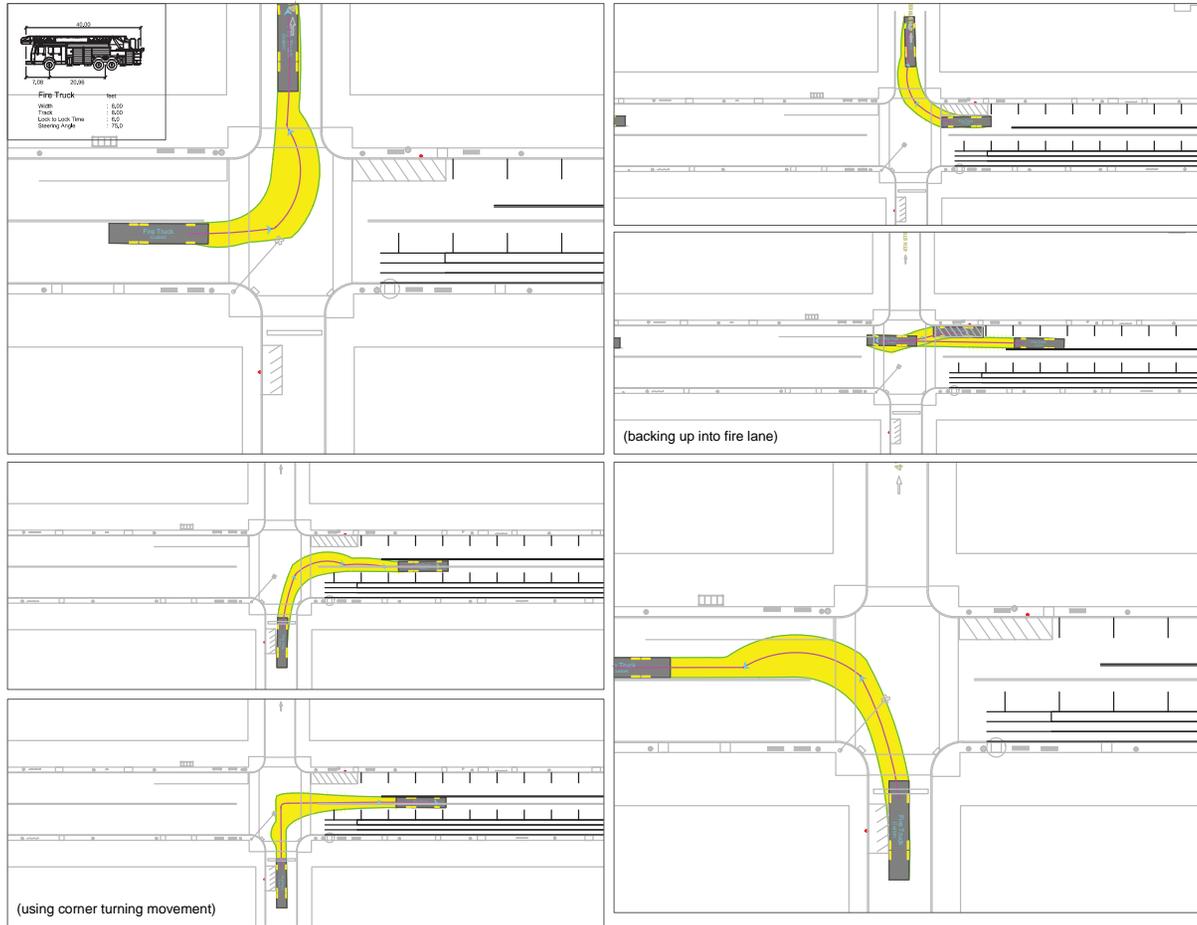
APPENDIX B

Turning Templates: Washington St. & 3rd St. - Fire Truck

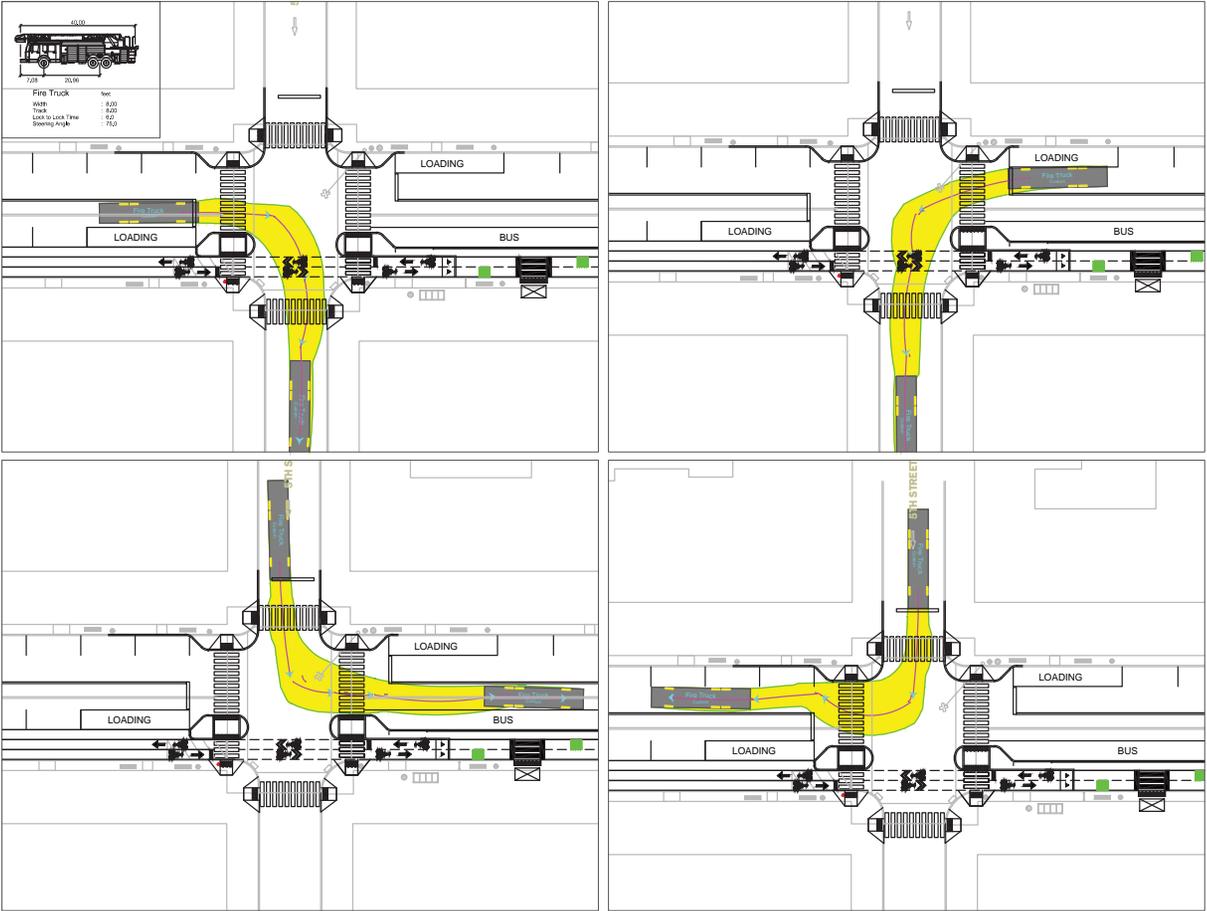
Turning templates for emergency vehicles were designed using a typical ladder fire truck vehicle with an overall length of 40 feet, a wheel base of 21 feet, and a 12 foot overhang in back, using the program AutoTurn.



Turning Templates: Washington St. & 4th St. - Fire Truck



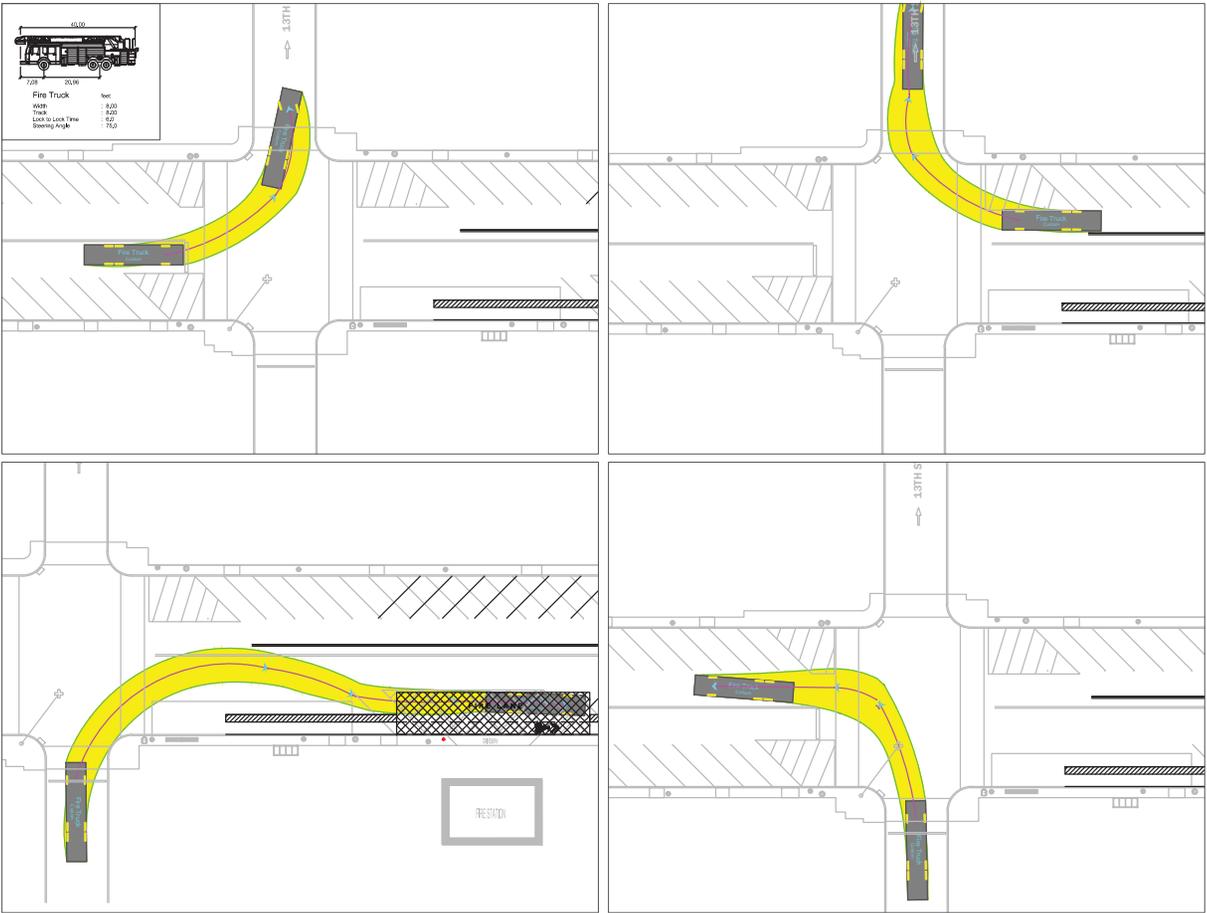
Turning Templates: Washington St. & 5th St. - Fire Truck



Turning Templates: Washington St. & 9th St. - Fire Truck



Turning Templates: Washington St. & 13th St. - Fire Truck



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APPENDIX C

Pavement Coring Summary

SUMMARY OF FINDINGS

As part of the conceptual design effort, the City requested that the Consultant perform two pavement cores to identify the depth and composition of the existing pavement and underlying base.

The investigation was conducted in October 7, 2014 at two locations outside of the traveled way:

- Downtown location – northwest corner of Washington Street/2nd Street
- Uptown location – southwest corner of Washington Street/ 11th Street

The results are described in the supporting technical memorandum under separate cover.

Asphalt pavement depth ranged from 8.38" uptown to +/-15" downtown. A concrete base was present beneath the existing asphalt pavement material in both locations. This concrete varied in thickness from 5.25" uptown to +/-6" downtown.

1. Downtown Coring (Northwest corner of Washington St./ 2nd St.)
 - Size of Core – 4" Diameter
 - Asphalt Thickness - +/-15" (2" surface asphalt, 13.00" base asphalt)
 - Sub-base – +/-6" concrete followed by sandy gravel (1/2" aggregate)

Note: Due to on-going utility work, findings for this coring are based upon a visual observation of the open utility excavation being performed by PSE&G on the northeast

corner of Washington Street/2nd Street on the day of the scheduled corings. Hoboken Police Department personnel onsite could not divert traffic for the coring to be completed on the opposite side of the street in the originally intended location. Photos of the adjacent utility excavation for which this coring location information is based have been incorporated into the coring analysis supporting technical memorandum.

2. Uptown Coring (Southwest corner of Washington St. / 11th St.)
 - Size of Core – 4" Diameter
 - Asphalt Thickness - 8.38" (1.38" surface asphalt, 7.00" base asphalt)
 - Sub-base – 5.25" concrete followed by sandy gravel (1/2" aggregate)

Note: The Bituminous Core Report performed by KEY-TECH, dated 10/10/2014 with a cut date of 10/7/2014 has been incorporated into the supporting technical memorandum.

Based on the findings from the corings, the existing asphalt pavement depth substantiates an approach to mill and overlay the roadway surface along Washington Street. Full depth reconstruction is not anticipated unless substandard pavement and/or base material are present. Should future findings show that the existing pavement thickness is less than identified in the coring information herein or is compromised in some manner, additional analysis would be required to determine the appropriate repaving methodology.

Although the cores provide good information regarding the approach for paving, they do not provide enough information to determine the options available for green infrastructure along

Washington Street. Therefore, geotechnical borings must be performed in order for decisions to be made on the location(s) and type(s) of green infrastructure that can be incorporated into the project.



Downtown Coring Location - N.W. corner of Washington Street / 2nd Street



Uptown Coring Location - S.W. corner of Washington Street / 11th Street

Preliminary Coring Location Plan 8.12.14

Washington Street Complete Streets Redesign Community Workshop

What's happening: Please attend a community workshop to envision the future of Washington Street! Your input will set the *vision* and identify *priorities* for "Complete Streets" enhancements to improve safety, comfort and function for all users along this iconic street.

When: Monday, December 16, 2013
6 p.m. to 8 p.m.

Where: Multi-Service Center,
124 Grand Street

RSVP today: <http://www.eventbrite.com/e/washington-street-complete-streets-redesign-community-workshop-tickets-9468198637>

Scan to automatically add
this event to your calendar!



What are "Complete Streets"? Complete Streets are roadways designed for safe, attractive, and comfortable travel by users of all ages and abilities. The City of Hoboken is looking to make these types of enhancements to Washington Street so that you can get around safely on foot, bicycle, car, or public transportation. By providing safe and equitable travel for everyone—including children, families, older adults, and people with disabilities—Complete Streets stimulate active, healthy behavior, reduce automotive traffic and pollution, encourage more foot traffic to businesses, and enhance interaction with the shared space we all know as the street.

For more information about the project, please visit: <http://www.hobokennj.org/washingtonstreet/>



Washington Street Complete Streets Redesign Community Workshop #1

MONDAY, DECEMBER 16TH, 2013
6pm-8pm
Multi-Service Center
124 Grand Street, Hoboken, NJ 07030

AGENDA

- I. Orientation/Overview(6:00pm-6:45pm)
 - A. Registration
 - B. Welcome & Introductions
 - C. Presentation
 - ★ Project Overview
 - ★ ReVisioning Washington Street
- II. Breakout Group Session(6:45pm-7:30pm)
 - D. Listening Sessions (Facilitated)
 - ★ "The Room" (Streetscape, Urban Design, and Stormwater) – Explore and discuss the look, feel and social fabric of Washington Street.
 - ★ "The System" (Transportation) – Explore and discuss how Washington Street functions within the transportation network for all users and how people get around using the street.
- III. Moving Forward (7:30pm-8:00pm)
 - E. Wrap-Up/Next Steps
 - F. Creating Your Own Vision (Non-Facilitated)
 - ★ Visioning Video Station – Smile for the camera and tell us your vision for Washington Street in a minute or less.
 - ★ Vision Statement Board – In your best penmanship, use a marker to fill in the blank: "I would like to see _____ on Washington Street"
 - ★ Starter Ideas – Use post-it notes to place on the images you would like to see along Washington Street. Feel free to add a comment.

Thanks for stopping by!

Stay in touch by visiting the project website at <http://www.hobokennj.org/washingtonstreet/>. Also, be sure to fill out the online survey at <https://surveymonkey.com/s/WashingtonStreetRedesign>. Survey deadline: **January 1st, 2014**

Agenda_Wash St_Community Workshop#1_12-13-13.docx





Washington Street Complete Streets Redesign Community Workshop #1 – December 16, 2013

Workshop Summary

The first community workshop for the Washington Streets Complete Streets Redesign project was held on December 16th, 2013 at Hoboken's Multi-Service Center. The primary purpose of this workshop was to engage in a visioning dialogue through mapping, visual preferences and a written "wish list" reflecting inspirations for a future Washington Street.

The first half of the workshop consisted of an overview of the project and project team (The RBA Group). A PowerPoint show was used to facilitate a discussion about visioning preferences and priorities for Washington Street. The presentation focused on streetscape/urban design along Washington Street (street as "The Room") and transportation along Washington Street (street as "The System"). (See pdf of the PowerPoint for details).

The second half of the workshop consisted of working groups to identify and discuss Community Assets and areas in need of improvement along or near Washington Street. (See attached pdf of Mapping Instructions). Here are the facilitator notes from each group:

Washington Street – The System

- People (drivers) – Not yielding to pedestrians
- Pedestrian entitlement/crossing/ignoring vehicles
- Parents (baby strollers) dodging cars to cross street
- Parking concerns (add/take away)
- Deteriorated curb/brick at 3rd Street: -1 ½ -3" lip at the curb
- Double parking (restaurant delivery people)
- Schedule reliability is poor – HOP
- Historically there was a trolley along Washington Street: should add back trolley/light rail (just dedicated for Washington Street) to cut out NJT buses
- Dislike illuminated gateway parking information signs
- Bike share program is a plus – will expand
- Not enough on-street bike corrals
- Bike corral at 3rd is a plus – freed up ~9 parking spaces for cyclists
- Corner Car program is a plus
- Delivery trucks, loading zones, commercial parking need to be accommodated somewhere
- Bus stops used as loading zones
- Worst double parking happens near restaurant row – between 1st and 7th

(H466900_Washington St_Community Workshop#1 Summary/G)



Washington Street Complete Streets Redesign Community Workshop #1 – December 16, 2013

- Employees of shops often take up parking spaces on Washington Street
- Parking/loading – needs "enforcement" and "options" ex. employee incentives
- Aesthetics "beauty can happen here"
- Delivery people sleep in cars in front of the shops between 6th and 7th – often results in triple parking
- Uptown redevelopment (more bottlenecks)
- Two-lane wide bike lane (one side of street only)
- Close parts of Washington Street (pedestrian mall) Yes? No!
- Sidewalk riding (bikes on Washington Street)
- Dog owners not cleaning up after their dog is an issue
- Plans for "dramatic use" – street fairs, parades
- Reversible lanes. Shut down block at certain hours; summer; temporary closures, evenings?
- Traffic lights (if/when?)
- Okay to close parts of Washington Street at times – like Garden Street at 9th by the school

Washington Street – The Room

- Consistent, safe paving materials
- Pedestrian balance
 - Keep cars and pedestrians in their respective zones
- Raised tabletop intersections?
 - Mind emergency vehicles
- Pedestrian "scramble" crosswalk treatment at major intersections – 1st, 3rd, Newark
- Neckdowns/ped safety
- Need resurfacing of Washington St
- Permeability – not just perception thereof
- Benches – not used because of awkward placement
 - Tree surrounds could incorporate benches
- Parklet option for seating areas
- Lighting 13th – 8th: "The path of death"
 - Not enough light – apparent when drizzles
- Prevent light spillage/but don't over-light
- How does lighting relate to pedestrian behavior?
- Should physical barriers prevent jaywalking?
- Most double parking is between 3rd and 6th Traffic lane with no option to double-park?

(H466900_Washington St_Community Workshop#1 Summary/G)





Washington Street Complete Streets Redesign Community Workshop #1 – December 16, 2013

- Can it be made impossible
- Are lanes wide enough for protected bike lane?
 - Cycles don't have appropriate facility = low ridership numbers and sidewalk traffic
- North of 8th
 - Back-in-angle parking?
- 4-hour maximum parking: why?
- "Congestion Pricing" for parking – market forces
- Sidewalk grading – all over the place
- Café space on pitched sidewalk – People want to put platforms on sidewalk
- Like brick crosswalks but maybe add striping on the edges
- Granite band along crosswalks is slippery
- Sidewalk standards to control patchwork repairs
- Needless fences sometimes impede on sidewalk
- Curb cuts – 5 remaining – get rid of them
- Raise curb heights to level sidewalk
 - Raise asphalt roadway surfaces?
- Streetscape
 - Signage, better white typeface
 - Ugly bus stop/poor design
 - Community boards ugly, but good ugly
 - Balance contemporary/charm
 - No hodge-podge style
 - Add preventative spray application for non-stick light poles
 - Electric boxes need attention – shrink-wrap?

At the conclusion of the session, leaders from each of the listening sessions offered a brief overview of what they noted to be the strengths and weaknesses of Washington Street and their group's priorities with respect to future corridor planning.

Afterwards, the project team leader thanked participants for their input and talked about next steps for the project which include: development of alternatives and ideas, completing the online survey by the January 1st deadline, and planning for the next Community Workshop anticipated in March. For the remainder of the meeting, participants were invited to visit each of the visioning stations to either video their vision for Washington Street, write on the vision statement board, place post-it notes on their favorite starter ideas, or write on the comment form.

(M66900_Washington St_Community Workshop#1 Summary/G)



Washington Street Complete Streets Redesign Community Workshop #1

Listening Session Exercise Mapping Instructions

MARK UP THE MAP!

(Don't be shy)

GREEN = **Strengths/Community Assets**

(Places, features or things that work well and enhance your experience along Washington Street: unique resources, hidden gems)

RED = **Weaknesses/Areas need of improvement**

(Barriers, places, streets or things that are bad and/or detract from your experience along Washington Street)



Listening Session Exercise_Mapping Instructions_Wash St_CW#1.docx



I would like to see

- A campaign against gum on the sidewalks
- Healthy trees and more trees
- Shorter light cycles, bus bulb-outs, crossing bulb-outs
- Street furniture and parklets
- As many rain gardens as possible for our sea level city!
- Existing lane widths remain & no curb extensions impeding traffic flow!
- No more traffic lights!
- Smart traffic lights
- Peaceful co-existence between peds/cyclists and motorists. There is room for all of us.
- Need for mutual respect: peds/cyclists/motorists
- Vintage storefront architecture maintained. For example, 404, 406 (Washington St)
- Bike racks in the residential sections of the city
- Trees on Washington, Newark along with public spaces on Washington
- Turn the benches inward for residents to meet and talk
- More protected bike lanes on: Washington, Observer, Sinatra and Sinatra North
- Expand the waterfront ped path and bike path to 11th so we can enjoy the priceless waterfront – the jewel of our city
- Ped/bike/motorist education

on Washington Street

Washington Street Complete Streets Redesign | Community Survey

Introduction

The Washington Street Complete Streets Redesign project will develop a community-supported vision for redesigning Washington Street to enhance and improve its safety, comfort, enjoyment and function for all users.

The purpose of this 17-question survey is to collect information, facts, opinions, and suggestions about Washington Street. Your input will help us better understand the issues, opportunities, and challenges of this important corridor within the City of Hoboken.

This survey will take 5-10 minutes to complete. While some demographic information is requested, individual responses will not be shared beyond the consultant team of The RBA Group. Instead, a summary of survey results will be presented to the City of Hoboken.

Thank you for taking the time to complete this survey!

The Washington Street Corridor is defined as the 16-block area along Washington Street between Observer Highway and 15th Street. See the map below.

Study Area Boundaries



Page 1

Washington Street Complete Streets Redesign | Community Survey

About You

1. Your email address

(optional - only note if you would like to receive updates on this project)

2. What is your age?

- under 18
 18-29
 30-49
 50-69
 70+

3. Your gender?

- Female
 Male

4. Which of the following statements best describes you?

- I live in Hoboken
 I work in Hoboken, but do not live there
 I own a property/business in Hoboken, but do not live there
 I go to school in Hoboken, but do not live there
 I visit Hoboken, but do not live there
 None of the above (please specify)

5. If you live in Hoboken, what is the nearest intersection to your place of residence?

Street 1

Street 2

You and Washington Street

Page 2

Washington Street Complete Streets Redesign | Community Survey

6. How often do you use Washington Street?

- Just about everyday
 A few times a week
 A few times a month
 Rarely
 Never

7. How do you typically get to/from Washington Street?

- I walk
 I take the HOP
 I take a NJ TRANSIT bus
 I drive
 I ride my bike

Other (please specify)

8. What time of day do you most often use Washington Street?

	Weekdays	Weekends
12am-4am	<input type="checkbox"/>	<input type="checkbox"/>
4am-8am	<input type="checkbox"/>	<input type="checkbox"/>
8am-12pm	<input type="checkbox"/>	<input type="checkbox"/>
12pm-4pm	<input type="checkbox"/>	<input type="checkbox"/>
4pm-8pm	<input type="checkbox"/>	<input type="checkbox"/>
8pm-12am	<input type="checkbox"/>	<input type="checkbox"/>

9. Where do you spend the most time on Washington Street?

	Often	Sometimes	Rarely	Never
Observer Highway - 1st Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1st - 8th Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8th - 14th Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14th - 15th Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page 3

Washington Street Complete Streets Redesign | Community Survey

10. What are your **main** reasons for using Washington Street? (check all that apply)

- To go shopping
- To grab something to eat (sit down or take-out)
- To see the doctor/dentist/lawyer/realtor
- To go to the bar
- To visit an entertainment venue
- To get to transit
- To reach my home or a friend's home, which is located on or near Washington Street
- To reach my workplace, which is located on or near Washington Street
- To reach school, which is located on or near Washington Street
- Other (please specify)

11. What are your favorite places to visit or things to do in this area?

Your Opinions about Washington Street

12. What do you like about Washington Street?

13. What do you dislike about Washington Street?

14. If you could redesign Washington Street, what would you keep original? What would you change? What would you add? What would you take away?

Ideas for Improving Washington Street

Washington Street Complete Streets Redesign | Community Survey

15. What opportunities do you see for improving Washington Street for pedestrians, bicyclists, motorists and those accessing transit? Where?

16. What issues and activities are the most critical to consider for the future of Washington Street?

Please rate each of these topics: 1 = very important, 2 = somewhat important, 3 = not important

	1 (very important)	2 (somewhat important)	3 (not important)
Maintaining historic character	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traffic and parking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pedestrian safety and accommodations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The quality of the bicyclist's experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transit accommodations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The appearance of the streetscape/landscape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The appearance of shop fronts, windows and signs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The general appearance of buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The mix of shops, restaurants, and entertainment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nighttime lighting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Freight/Loading/Deliveries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Space for entertainment and community events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public art	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Space for community bulletin boards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public open/leisure space	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trash collection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Green Infrastructure/Stormwater management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wayfinding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Innovative Technology i.e. Cell Phone Charging Stations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Washington Street Complete Streets Redesign | Community Survey

Other (please specify)

17. What other ideas do you have about Washington Street that might assist this Complete Streets redesign?

Thank You!

Thank you for taking the time to fill out this survey! Survey results will be posted on the project webpage ([click here](#)). Be sure to check the project webpage often for other opportunities (such as the community workshops) to be involved in the planning process.

Washington Street Redesign Community Meeting #2: Design Alternatives

What's happening: The City hosted Community Meeting #1 on December 16, 2013 to collect public input and understand the community's vision for Washington Street. Based on that input, existing conditions analysis and stakeholder interviews, the project team has synthesized a community vision and developed design concepts and alternatives.

Why to attend: Your feedback is important! To help pick the preferred design direction, a survey will be conducted. The designers will be on hand to present the design work and field questions from the community.

When: Monday, May 5, 2014

Open House: 6:30 – 8:30 PM

Presentation: 7 PM

Where: Multi-Service Center,
124 Grand Street

Hoboken, NJ

For more information about the project, please visit: www.hobokennj.org/washingtonstreet/

Note: For those who can't attend, the project display boards and on-line survey will be available on the project website after the meeting.



A "Complete Street" – supporting business and providing safe travel for all users. The City of Hoboken will be upgrading Washington St. with safety improvements and enhancements that support local businesses and provide safe and equitable travel for everyone—including children, families, older adults, and people with disabilities. Complete Streets are roadways designed for safe, attractive, and comfortable travel by all users by every mode, including foot, bicycle, car, or public transportation. Per NYC Department of Transportation's seminal 2013 report, "The Economic Benefits of Sustainable Streets," improved accessibility and a more welcoming street environment generate increases in retail sales. A "Complete" Washington Street will encourage more foot traffic to businesses, improve safety, reduce pollution and stormwater runoff, stimulate active, healthy behavior, and enhance interaction on Hoboken's vital Main Street.



City of Hoboken



Washington Street Complete Streets Redesign Community Meeting #2: Design Alternatives

Agenda

Open House: 6:30 – 8:30 PM

Presentation by Design

Consultant Team: 7 PM

Monday, May 5, 2014

Multi-Service Center,
124 Grand Street

Community Response Survey

Be sure to complete a survey after reviewing the design recommendations for Washington Street. The survey is also available on the project website.

Project Website: <http://www.hobokennj.org/washingtonstreet/>

What's happening: The City hosted the first community meeting to collect public input and understand the community's vision for Washington Street on December 16, 2013.

Community Meeting #2 will feature two design alternatives for Washington Street which have been advanced and are ready for public input. A survey will be conducted to help pick the preferred design direction. The designers will be on hand to present the design work and field questions from the community.



City of Hoboken





Washington Street “Complete Street” Redesign Community Meeting #2 – May 5, 2014

Meeting Summary

The second community meeting for the Washington Street “Complete Street” Redesign project was held on May 5, 2014 at Hoboken’s Multi-Service Center. The primary purpose of this meeting was to engage in a dialogue of community input in response to proposed design concept alternatives for Washington Street.

The meeting was run as an “open house” and included opening remarks from Mayor Dawn Zimmer, a presentation by RBA, and open dialogue between RBA and the public at five exhibits which focused specific aspects of the project. The presentation served to orient attendees to the project, describe progress made so far, and emphasize how public input is vital to select a final preferred concept (a PDF of the presentation was provided separately). The five exhibits organized project display materials into the following topic areas:

1) Project Objectives and Existing Conditions	Display boards 1-2
2) Safety, Parking, and Loading	Display boards 3-4
3) Community Character	Display boards 5-6
4) Sidewalk, Intersections, and Landscape	Display boards 7-9
5) Roadway Alternatives	Display boards 10-12 (a PDF of the 12 display boards is attached)

Input from the community was collected through a survey and through conversations with RBA technical staff facilitators. The survey (a PDF of the survey was provided separately) will be available on the City’s website until May 26, 2014, at which point the responses will be compiled and analyzed. Hard copies of seventeen (17) surveys were collected from attendees by the end of the meeting and were forwarded to the City.

The following observations and comments were recorded by RBA staff subsequent to conversations with attendees. Approximately 44 people attended the meeting (sign-in sheet attached).

[J466900_Washington St_Community Meeting#2_Summary.docx/Meetings/Public_Meeting 2/S](#)



Washington Street “Complete Street” Redesign Community Meeting #2 – May 5, 2014

Attendee Comments:

<ul style="list-style-type: none"> Existing lighting is a big issue and doesn’t work. The roadway is too dark. The energy savings should be mentioned with the cost factor.
<ul style="list-style-type: none"> Back in angle parking won’t work because people don’t drive courteously enough and can’t back in without hitting other cars. Double parking is necessary for retail deliveries – neither drivers, delivery companies, nor merchants can afford to pay for loading spaces. They were both OK with charging non-permit people to park uptown.
<ul style="list-style-type: none"> Want to ensure that count-down pedestrian heads are used.
<ul style="list-style-type: none"> Concerned about back-in angle parking due to tailgating and the fact that its “different”.
<ul style="list-style-type: none"> An unofficial poll of participants yielded a strong preference for the two-way cycle track, even if it required a parking impact. Responses: <ul style="list-style-type: none"> Two-Way Cycle Track: 10 Bike Lanes: 2 One-Way Cycle Track: 1 No bike facility: 1
<ul style="list-style-type: none"> Why don’t you use the space that’s in front of the fire hydrants as green infrastructure so you don’t lose parking. Even if the fire department has to destroy some of it in emergency, who cares.
<ul style="list-style-type: none"> No pavers in the walking areas, they are terrible for ladies with high heels.
<ul style="list-style-type: none"> United water is always tearing up the street. They are going to destroy the new pavement unless they fix their infrastructure before it’s repaved. The guts of the road have to be addressed.
<ul style="list-style-type: none"> The lighting is bad, it must be fixed. I’d like to shoot that guy that was here when they changed it from the taller arm mounted lights down to these smaller lights that shine in everyone’s eyes.
<ul style="list-style-type: none"> I don’t think replacing the lights with new ones that are the same height will fix the glare problem; they are too low and need to be taller poles that shine downward.
<ul style="list-style-type: none"> The lighting shines right in my buildings upstairs windows and they seem to have a lot of glare.
<ul style="list-style-type: none"> Where is the plan to remove some of the mid-block poles and replace them with taller cobraheads in order to better light the roadway?
<ul style="list-style-type: none"> I think the business owners should be taxed to help pay for the some of these improvements.
<ul style="list-style-type: none"> I don’t think the business owners should be taxed to help pay for them, they’re taxed enough.
<ul style="list-style-type: none"> How deep is the green infrastructure? How can you do this green infrastructure with all of the old coal vaults?

[J466900_Washington St_Community Meeting#2_Summary.docx/Meetings/Public_Meeting 2/S](#)





Washington Street “Complete Street” Redesign Community Meeting #2 – May 5, 2014

<ul style="list-style-type: none"> It's going to cost a lot of money to make all these improvements, does the City have the money to do all of this work?
<ul style="list-style-type: none"> Need less sidewalk obstructions, better accessibility along street and into businesses. Cited lack of access to many businesses. Consider “smart” technology for signals (especially chirps/talking ped signals).
<ul style="list-style-type: none"> Security devices/cameras desirable. Charging stations for cell devices.
<ul style="list-style-type: none"> Noted inaccuracies of base map used for Wayfinding. Need to check source, revise City boundary. Susan noted need to check for City GIS base to ensure accuracy of piers, boundary, etc.
<ul style="list-style-type: none"> Received feedback from Historic Commission member regarding concerns of “style” selection and compatibility with historic context. Cited need to understand any potential regulations, especially related to future funding/permitting reviews. Susan scheduled to follow up with Commission. Will review interview notes.
<ul style="list-style-type: none"> Interest in pursuing County funding for signals at County roads.
<ul style="list-style-type: none"> Incorporate opportunities for event/gathering space at key gateways and/or at intersections with views of river.
<ul style="list-style-type: none"> Cited need for “equity”. Older residents, less affluent vs gentry, young professionals.
<ul style="list-style-type: none"> I don't know if you should repair the sidewalk or replace it entirely. I would like to know how the cost of repairs over 20 years compares to the cost of wholesale replacement and the subsequent lifecycle. It may make sense to spend some more up front, and at least <i>feel like you got something for your money</i>.
<ul style="list-style-type: none"> The frontage zone should be uniform unto itself, and contrast the pedestrian zone pavement. That way you can tell what space belongs to retail and what belongs to the public, without the City coming around with a tape measure.
<ul style="list-style-type: none"> My drivers would benefit from reserved space for unloading. They are usually done with deliveries to Hoboken by noon or 1PM, so morning-reserved unloading space would work for us. (And FYI, no driver I know would hand-truck a case of coke more than a single block).
<ul style="list-style-type: none"> The frontage zone should be unique unto the individual business that uses it.
<ul style="list-style-type: none"> It's too bad the amenity zone pavers we have right now are in decent shape, because I don't really like them. I prefer the gray, cobble-looking stones.
<ul style="list-style-type: none"> I've seen these painted curb extensions in NYC and it really takes a lot to make them hospitable for seating. They're always empty when I see them.
<ul style="list-style-type: none"> I definitely prefer the concrete curb extension. The planter effectively separates it from the road and makes it a space for people.

[#466900_Washington St_Community Meeting#2_Summary.docx/Meetings/Public Meeting 2/S](#)



Washington Street “Complete Street” Redesign Community Meeting #2 – May 5, 2014

<ul style="list-style-type: none"> I'll miss paver crosswalks, but I am okay with the striping if it is better for visibility, accessibility, and maintenance, as you say.
<ul style="list-style-type: none"> If you redo the sidewalk, consider this: you see the concrete with every step you take. So don't just do the standard concrete. Do something nice.
<ul style="list-style-type: none"> If permeable pavers do <i>anything</i> to reduce runoff, then you should use them.
<ul style="list-style-type: none"> Would rather pay a little more than be bound to the PSE&G palette.
<ul style="list-style-type: none"> Street furnishings need marine finishes. Now, when you pull off a taped-on sign, the paint comes off too!
<ul style="list-style-type: none"> Think about light bollards – you should spec one with the system.
<ul style="list-style-type: none"> Don't short change the wayfinding – I get asked every other day where is the PATH.
<ul style="list-style-type: none"> We don't need more signs – people just ask. I get asked everyday how to get to the PATH station.
<ul style="list-style-type: none"> Wayfinding for cars: To NJ Turnpike. To 495.(Willow and Park are the 2 feeders to the Lincoln Tunnel).
<ul style="list-style-type: none"> Don't narrow the sidewalk downtown, its great that it allows groups to walk together.
<ul style="list-style-type: none"> Morris column: An idea for the Hoboken kiosks that came up last night at the meeting. That they should be round and that they could be commissioned public art. Funded by grant.
<ul style="list-style-type: none"> Moving day: First of the month is a parking “free for all”!! Chaos!!
<ul style="list-style-type: none"> Water Department rips up pavement: Only PSE&G are good at repair. There should be strict standards w/sleep fines for United Water and other contractors that tear up the street and leave it a mess w/bad patches.

Next Steps:

Pending the synthesis and analysis of survey comments and follow-up stakeholder outreach activities by the City, the consultant team will initiate the development of a Preferred Concept Alternative. A schedule for the remaining design effort, review process and final meeting will be established within the next several weeks, with an overall targeted project completion date of September 2014.

[#466900_Washington St_Community Meeting#2_Summary.docx/Meetings/Public Meeting 2/S](#)



Please review all meeting materials prior to completing this survey. All materials and this survey will be available on the project website: www.hobokennj.org/washingtonstreet/. Please complete all questions on all three pages. If you do not have time to complete your survey and comments in person today, please complete survey online. **All surveys are due by Memorial Day, May 26, 2014.**

PRIORITIZING CAPITAL IMPROVEMENTS

The following components of the Washington St. project are associated with the largest construction costs. Conceptual cost estimates will be provided in the next and last phase of the project, the Preferred Concept Plan. Please **pick one priority level for each of these elements** from 5 (high priority) to 1 (low priority) according to their importance to you:

	5 (High Priority)	4	3	2	1 (Low Priority)	Don't do it!
1. Repave and stripe the asphalt street surface						
2. Update/replace the traffic signals. (Board #3)						
3. Improve street lighting performance at intersections. (Board 3)						
4. Improve street lighting performance mid-block. (Board 3)						
5. Upgrade/replace existing streetscape furniture. (Board 5)						
6. Add streetscape amenities. (Board 5)						
7. Improve street trees and tree pits. (Board 7)						
8. Add rainwater-capturing street-tree pits mid-block. (Board 7)						
9. Add rainwater-capturing landscape at intersections (through concrete curb extensions). (Board 7 and 9)						
10. Improve conditions of sidewalk pavement. (Board 8)						
11. Add curb extensions at intersections (to improve pedestrian safety and provide space for various amenities) (Board 9)						

12. STREETSCAPE FURNITURE affects the overall "feel" of the street. The appearance of selected components and the character of Washington Street results from aesthetic criteria. Which style do you prefer? (Board 5)

- a. Replica 1880
- b. Sleek
- c. Contemporary
- d. Keep existing & add furniture
- e. Keep existing & don't add

SIDEWALK IMPROVEMENTS Please select the options most appealing to you. (Board 8) **CIRCLE ONE.**

- 13. In the Amenity Zone (near curb):
 - a. Maintain existing pavers
 - b. Replace existing pavers with distinct but improved design
 - c. Replace with Concrete
- 14. In the Pedestrian Zone (center of sidewalk)
 - a. Repair and maintain the existing sidewalk
 - b. Replace the sidewalk with new concrete, uniform in appearance
 - c. Replace the sidewalk with decorative concrete
- 15. Sidewalk in Frontage Zone (adjacent to business)
 - a. Frontage zone pavements should match the overall sidewalk
 - b. Frontage zone pavements should all have a uniform look, but should vary from the overall sidewalk
 - c. Frontage zone pavements should vary, reflecting the usage and design of the associated business and/or property owner.

CURB EXTENSIONS AT INTERSECTIONS improve pedestrian visibility, reduce crossing distance, and provide additional space in existing 25' clear zone for pedestrian amenities. All extensions will be designed to accommodate turning vehicles safely. They may be low-cost painted (such as recently installed on 12th St.) or concrete. "Painted" curb extensions are low cost and do not require moving drainage basins. Concrete curb extensions cost more with the added benefits of green infrastructure opportunity, durability, and aesthetic impact. The corner curb ramps will likely need to be re-constructed for traffic signal installation and ADA ramps regardless of which treatment is selected. (Board 7-9)

16. Please select which of the following best represents your preference for corner curb extension alternatives (CIRCLE ONE):
- a. I prefer the "painted" curb extensions as a permanent low-cost solution.
 - b. I prefer the low-cost painted curb extensions as an interim solution, and concrete for later phase.
 - c. I prefer the higher-cost "concrete" curb extension.
 - d. I prefer no curb extensions.

ROADWAY ALTERNATIVES Both Roadway Alternative A and B have many common features. Both alternatives include complete resurfacing and restriping, and propose replacing current paver sidewalks with safer, high-visibility crosswalks. Curb extensions will be either painted or concrete based on community preference and funding availability. All traffic signals will be replaced per current standards, including pedestrian count-down timers. Transit will be enhanced with enlarged bus bulb-outs and colorized bus stops.

17. Please select your preferred Roadway Alternative. **CIRCLE ONE**
- a. Roadway Alternative A – Resurfacing with Bike Lanes
 - b. Roadway Alternative B – Resurfacing with Protected Cycle Track
18. If Roadway Alternative B (Resurfacing with Protected Cycle Track) is selected as the community preference, which option do you prefer for the Uptown (north of 8th Street)? **CIRCLE ONE**
- a. Option 1: One-way Cycle Track
 - b. Option 2: Two-Way Cycle Track – approximately 3-5 parking spaces lost per Uptown block

PARKING – Please refer to Parking and Loading Recommendation board (Board #4).
 Please pick one priority level for each of these elements from 5 (high priority) to 1 (low priority) according to their importance to you

5 (High Priority) 4 3 2 1 (Low Priority) Don't do it!

19. Add designated loading zones and times.						
20. Add short-term parking (i.e. 15 minute only).						
21. Implement dynamic value pricing based on change in demand to encourage turnover & availability.						
22. Change to hybrid permit/meter parking north of 8th Street (free parking for permit holders plus metered parking)						
23. Mark and number metered spaces.						
24. Extend time period for metered parking into the evening where high demand but low turnover.						

ADDITIONAL COMMENTS Do you have any additional or specific recommendations regarding any of the above? Please refer to specific question #s. You may use the back of this page if you need more room.

Thank you for participating in this survey! If you do not have enough time to complete your survey today, you may also submit online at www.hobokennj.org/washingtonstreet/ by May 26, 2014 (Memorial Day).

Name (optional): _____

Email address (optional): _____

Address or Cross-Streets (optional): _____

ADDITIONAL COMMENTS _____





Washington Street Complete Street Redesign Community Meeting #3

TUESDAY, SEPTEMBER 23RD, 2014
6:30pm-8:30pm Presentation at 7pm
Multi-Service Center
124 Grand Street, Hoboken, NJ 07030

AGENDA

- I. Welcome/Introductions
- II. Project Overview/Recap
- III. Tonight's Focus – Presentation of Concept Plan
- IV. Moving Forward

Agenda_Meeting3



Washington Street "Complete Street" Redesign Community Meeting #3 – September 23, 2014

Meeting Summary

The third and final community meeting for the Washington Street "Complete Street" Redesign project was held on September 23, 2014 at Hoboken's Multi-Service Center. The primary purpose of this meeting was to present the final selected preferred alternative for the redesign of the street and to provide a platform for the public to provide their thoughts about the proposed design.

The meeting was held from 6:30-8:30 and opened with remarks from Mayor Dawn Zimmer, and a presentation by the RBA team, followed by a discussion with the community on the overall design and the details of the final design. The RBA team presented the drawings showing the final configurations of Washington Street, cross sections, design details, and renderings. The public provided their comments about the overall design and the details. The exhibits provided by RBA included the following:

1. PowerPoint Presentation with the details of the various design elements
2. Renderings:
 - a. Bird's-Eye Perspective of Washington Street
 - b. Pedestrian's Perspective of Washington Street
3. Design drawings:
 - a. Typical Blocks – Uptown and Downtown
 - b. Typical Cross Sections – Uptown and Downtown
 - c. Typical Intersections
 - d. Atypical Blocks and Intersections
 - e. Curb Extension Typology

The following observations and comments were recorded by RBA staff subsequent to conversations with attendees. Approximately 30 people attended the meeting.

Attendee Comments:

Downtown

- Why only refurbish lights when everything else will be new?
- Will traffic signals be eliminated? (Newark?)

Washington St_Community Meeting#3 Summary





Washington Street “Complete Street” Redesign Community Meeting #3 – September 23, 2014

- Grey concrete (not white!). How about sampling to match bluestone pattern at City Hall. Provide spec for grey concrete coloring
- No electronic message boards
- ?? column message boards
- Why not replicate style per survey results?
- Snow removal issues
- Curb extensions will create ice dams/massive puddling
- Who will care for “green” stuff
- Back-in angle parking exhaust fumes
- Replace (not refurbish) poles!
 - Fresh/new...don't try to save \$ here
 - Light from the perspective of lighting design/not recycling
- How will this be plowed?
- The garbage cans are BIG, UGLY and you have to touch them!! Yuck!
- Funding – plan phased bonding
- NEED public education to support design/operations
- BigBills – Get rid of them please!!!

Uptown

- Like engaging various parts of the community
- Like adding loading zones
- Good that (signals, curb ramps) comply with the State and federal guidelines
- Question – How will parkers know time of day restrictions? – on sign
- Make a one-way southbound bike lane from 15th to 7th or 8th on HUDSON STREET!!! (just like the one-way northbound on Washington Street)
- Crosswalk striping and material
- Add one-way street signs
- Add both long- and short-term bike parking, possibly in garages
- Keep street lights consistent. Do NOT reuse old lights. This is not where you should be saving money
- Please build modern glass bus stops that shield wind in the cold NE winters
- Keep bike lanes consistent even if you must remove angled parking. We are a City!
- Exhaust fumes for back-in angled parking – health risk?
- Southbound bike lane on Hudson uptown?

Washington St_Community Meeting#3 Summary



PUBLIC MEETING #3 ADDENDUM

At Community Meeting #3, RBA received input regarding design solutions to improve the existing state of message boards along Washington Street.

Pictured on this page, a Morris Column is a columnar object, round or radially polygonal, built to an approachable scale which allows people to comfortably post and read messages. There is no set design for a Morris Column. In their 200 year history, they have varied in diameter, height, color, and materials. They have been elaborate or simple, with capitals and bases, and without, at times with lighting. Their interior space has been used for various purposes, such as the storage of street cleaning tools, stairwells, public telephones, or transformers.



Existing community message board.
(Contributed by M. Ondrejka)



Examples of Morris Columns for community messaging in urban context.
(Contributed by M. Ondrejka)

Should the City of Hoboken desire to employ Morris Columns along Washington Street, the following considerations should be weighed in the next phase of design.

- Custom design and fabrication is an opportunity to engage local artists, designers, fabricators, and materials.
- An advertising contract with businesses to use the column could provide funding for maintenance services.
- Community messaging could incorporate the use of digital technologies
- Morris columns could house traffic signal boxes as long as they are placed within 25' of an intersection.
- One column per block could improve the capability and reach of community messaging.

APPENDIX E

Existing Street Furnishings Inventory

Washington Street Furnishings by Block

Southern Extent of Block	Street Lights		Cobra Head Lights		Bus Shelters		Tree Pits		Benches		Bike Racks		Trash Receptacles		Message Boards		Phone/Internet	
	W	E	W	E	W	E	W	E	W	E	W	E	W	E	W	E	W	E
14th St.	5	5	0	0	0	0	13	7	0	0	0	1	0	1	0	0	0	0
13th St.	5	5	0	0	0	1	4	4	0	2	0	2	3	2	0	0	0	0
12th St.	7	7	0	0	0	0	7	10	0	0	1	0	3	1	0	0	0	0
11th St.	7	7	0	0	1	0	7	6	1	2	0	0	1	2	0	0	0	0
10th St.	7	7	0	0	0	0	7	4	0	0	0	0	2	1	0	0	1	0
9th St.	7	7	0	0	1	0	5	5	1	0	0	1	3	1	0	0	0	0
8th St.	7	7	0	0	0	0	3	8	1	1	0	0	1	2	0	0	0	0
7th St.	7	7	0	0	1	0	8	6	2	3	5	0	2	2	0	0	0	0
6th St.	8	9	0	0	0	0	7	8	4	4	4	3	1	1	0	0	1	0
5th St.	8	8	0	0	1	1	7	9	4	3	4	2	2	2	1	1	0	0
4th St.	6	6	0	0	0	0	6	7	4	4	5	3	1	2	0	0	0	0
3rd St.	8	8	0	0	1	1	5	9	3	4	5	2	2	2	0	0	1	0
2nd St.	8	8	0	0	0	0	6	7	2	1	6	2	2	2	0	0	0	0
1st St.	8	8	0	0	1	1	6	7	4	4	1	0	2	2	1	1	1	1
Newark St.	4	4	0	0	0	0	0	2	10	3	1	1	2	2	0	0	1	0
Observer Hwy	0	0	3	3	1	0	5	0	2	0	0	0	1	1	0	0	1	0
TOTAL:	102	103	3	3	7	4	96	99	38	31	32	17	28	26	2	2	6	1

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