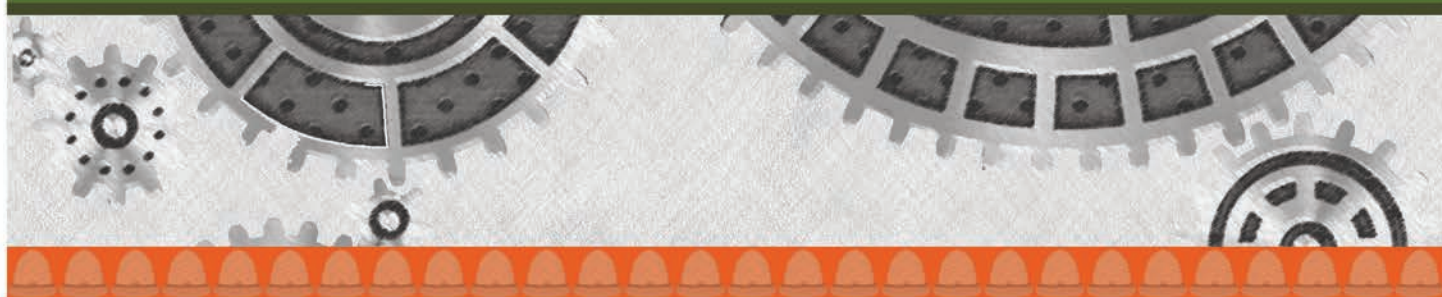


COMPLETE STREETS MASTER PLAN

for
DOWNTOWN
NEW BRITAIN



MAY 2013



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- Mayor Tim O'Brien, City of New Britain
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Richter & Cegan Inc.

RUMNEY ASSOCIATES



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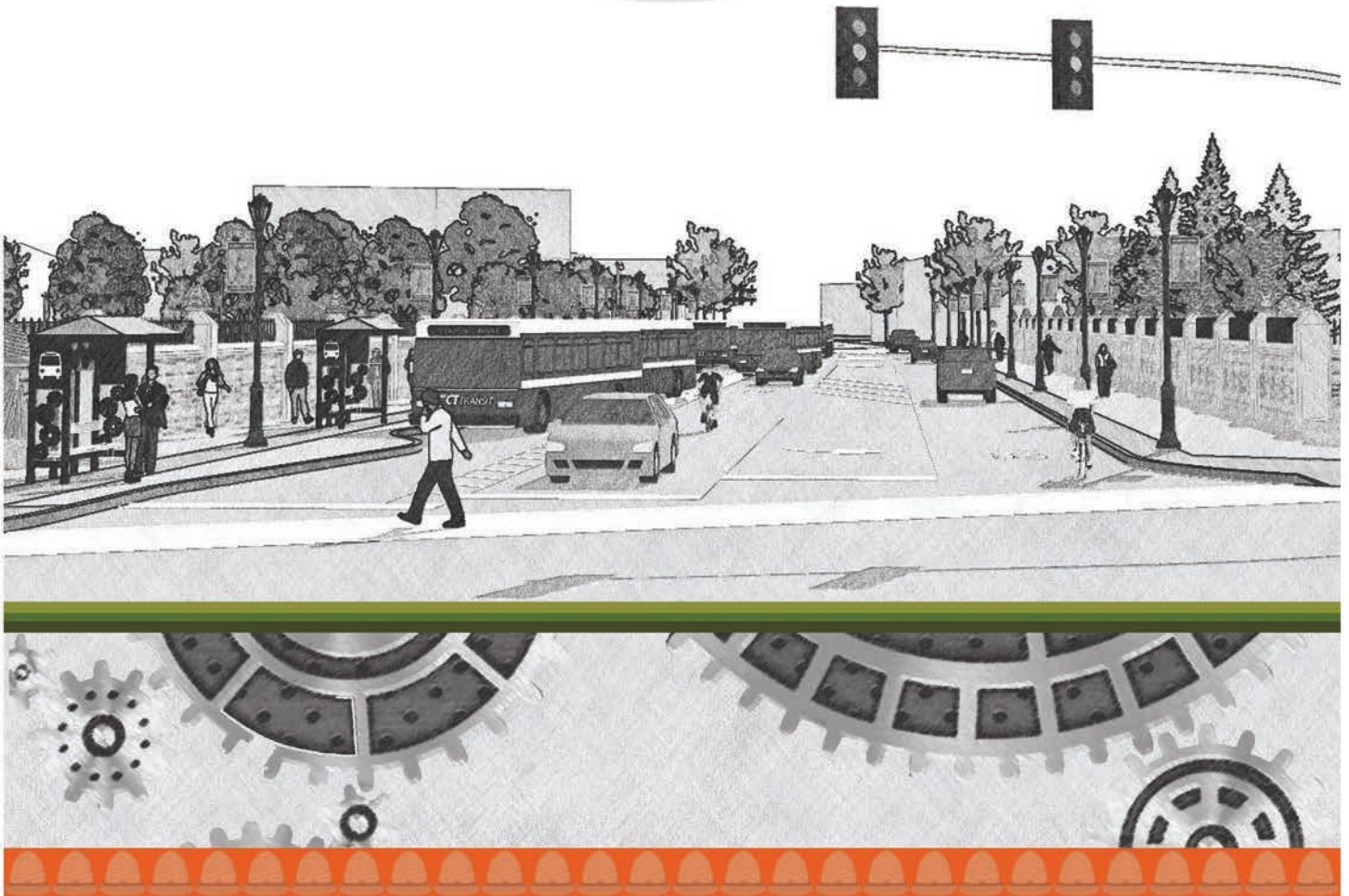


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Chapter 1: Purpose





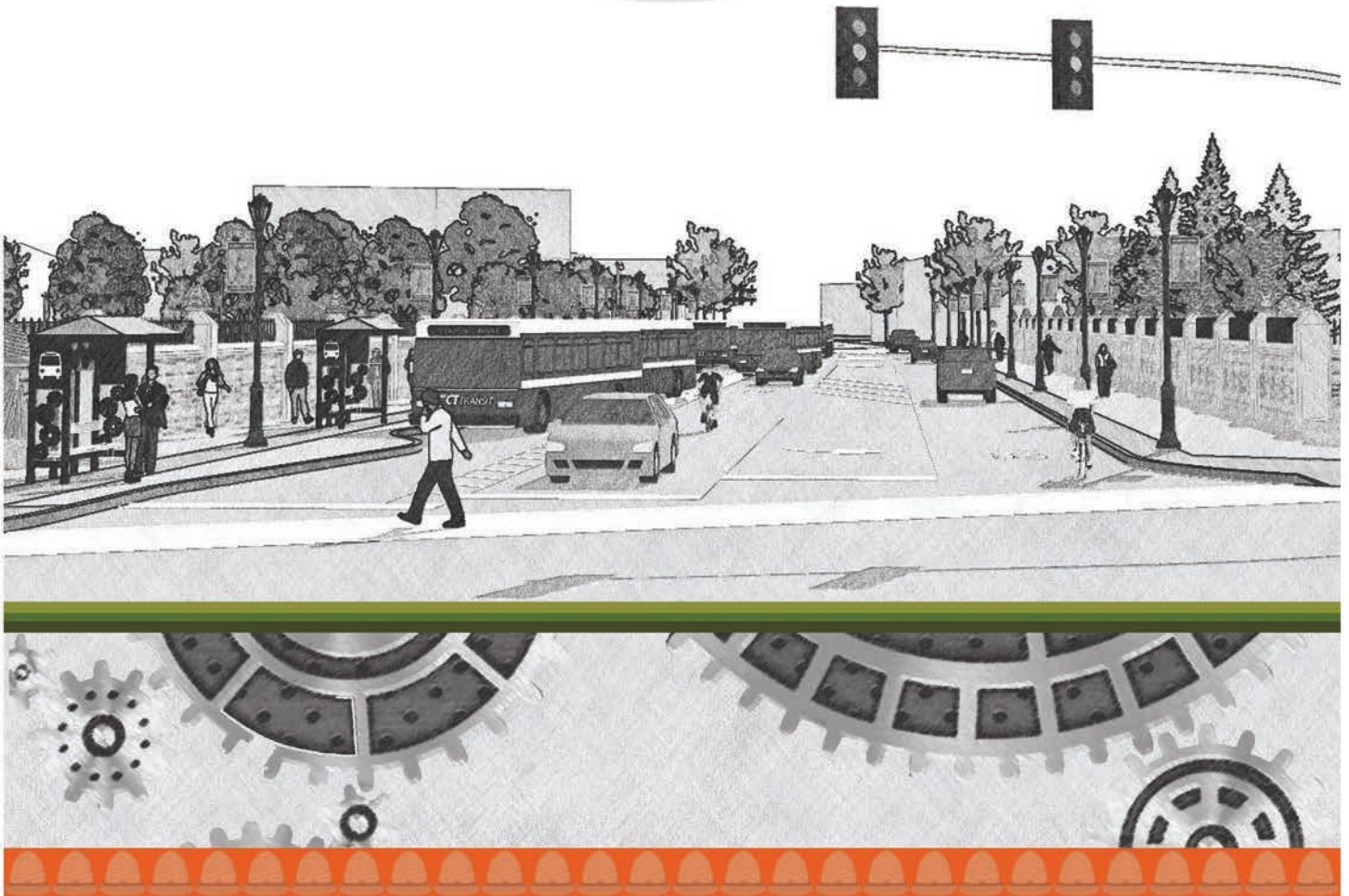
The *Complete Streets Master Plan for Downtown New Britain* is intended to serve as a guide for creating a more pedestrian-friendly, attractive and livable environment through-out the downtown area in preparation for the 2015 scheduled opening of the \$572 million CTfastrak (BRT) project. CTfastrak will provide Bus Rapid Transit (BRT) along a 9.4 miles dedicated busway corridor between New Britain and Hartford, and also includes a five mile multi-use trail from Downtown New Britain to Newington Junction. This major infrastructure investment will provide residents, commuters and visitors reduced travel time for employment, recreational, residential and commercial opportunities throughout the region.

The City began seriously preparing for CTfastrak with its *2008 Downtown Development Plan*, which recognized the need to make the downtown road network safer and more pedestrian friendly. With the terminus station of CTfastrak located in the center of downtown New Britain, the City's goal is to maximize transit-oriented development and employment opportunities downtown, as well as support bus ridership, and improve the quality of life for those who live and work in New Britain. This Master Plan is the next step in this process, and is consistent with implementing a Complete Streets design approach to the downtown road network.

Improvements outlined in the *Complete Streets Master Plan for Downtown New Britain* will be used to help the City's convey its vision for the downtown to developers, funding agencies, and those already living and working in the City, as well as help the City identify and prioritize the projects that will bring the this vision forward to reality.



Chapter 2: Executive Summary



The *Complete Streets Master Plan for New Britain* was funded through a HUD Sustainable Communities Grant, and guided by the Downtown Streetscape Working Group, a large group of local stakeholders that included residents, business leaders, members of the arts community and public officials. This project serves as a continuation of work that was identified in the City's *2008 Downtown Development Plan*, which recognized the need to make the downtown road network safer and more pedestrian-friendly.

The *2008 Downtown Development Plan* recognized that downtown New Britain already has many of the characteristics that provide the fabric for a livable environment – its shopping and restaurants, open space, museums and culture – all within easy walking distance of each other. Despite these positive characteristics, urban renewal efforts during the 1970s and 1980s degraded downtown New Britain, and created a street network that heavily favored vehicles over pedestrians. The CTfastrak project should allow New Britain to capitalize on its many assets to capture new, transit-oriented development opportunities, if the City addresses the deficiencies which currently do not convey a safe, attractive pedestrian experience.

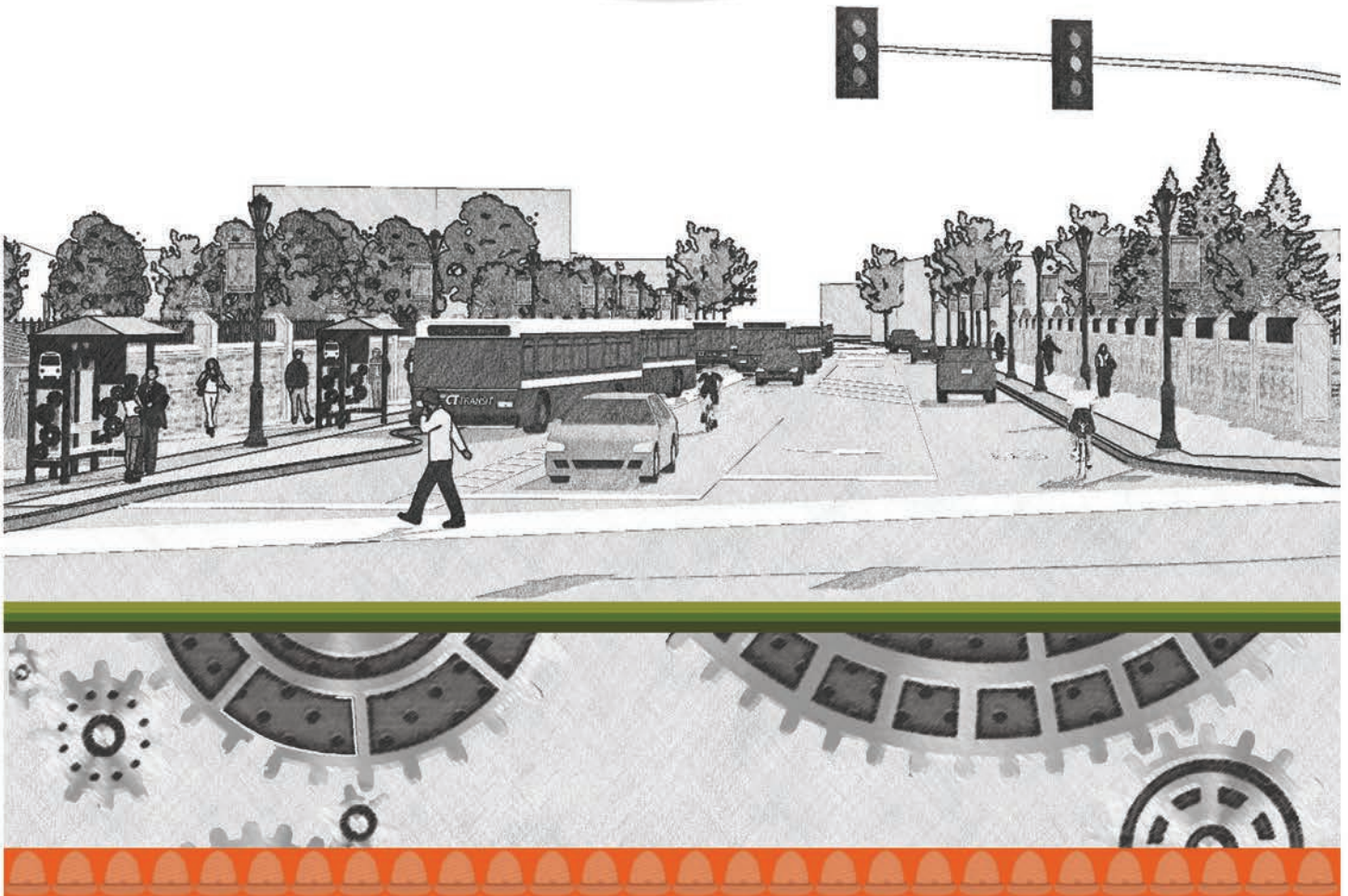
The *Complete Streets Master Plan for Downtown New Britain* addresses many of these deficiencies, and the improvements outlined within this plan will:

- 1) Establish a vision for the downtown by developing a consistent and attractive streetscape vocabulary throughout the entire project area that is unique to New Britain and reflective of the City's rich history.
- 2) Utilize a Complete Streets design approach to balance the needs of cars, people, bicyclists, and transit riders, and also provide a safe and attractive environment throughout the downtown by improving the overall pedestrian experience.
- 3) Establish a more livable environment supportive of transit-oriented development, economic growth, and improving the quality of life in New Britain.
- 4) Improve Central Park, the City's most significant urban space, by making the area more attractive, less isolated, and more conducive for civic functions. This may include reintroducing water to the downtown as a main feature, which historically was a focal feature in Central Park.
- 5) Re-link the downtown and neighborhoods by carrying Complete Streets improvements across the State Route 72 overpasses. This will help re-establish Main Street as the focal street in the City, and re-connect the downtown with the Broad Street and New Brite Plaza area.
- 6) Create a way-finding and historic signage system to guide residents and visitors to destinations, and celebrate the City's rich history through special signage.
- 7) Build upon the City's strong connection with the arts and establish a streetscape art program that includes both permanent and rotating art and sculptures to enhance the streetscape image and provide a destination for visitors.
- 8) Provide an implementable strategy for making the improvements identified in this Master Plan.

Even before the Master Plan was completed, the value of improvements suggested within the plan have been widely recognized and supported by many state and federal agencies. Grant funding is already in place for many improvements and construction has already begun. The Master Plan identifies 12 Complete Street projects with a total construction cost in excess of \$20 Million dollars. This Master Plan will be critical for the City to ensure that construction of the improvements identified within this document continues to occur in a well-planned and cohesive manner, and that the City can share its vision for the downtown with private and public agencies looking to invest in what will be a bright future for downtown New Britain.



Chapter 3: Principles of a Livable Community & Complete Streets Design Methodology



To transform downtown New Britain into the vibrant downtown it once was, the Master Plan is based on applying these key principles for livable and sustainable communities*:

1. Design on a Human Scale

Compact, pedestrian-friendly communities allow residents to walk to shops, services, cultural resources, and jobs and can reduce traffic congestion and benefit people's health.

2. Provide Choices

People want variety in housing, shopping, recreation, transportation, and employment. Variety creates lively neighborhoods and accommodates residents in different stages of their lives.

3. Encourage Mixed-Use Development

Integrating different land uses and varied building types creates vibrant, pedestrian-friendly and diverse communities.

4. Preserve Urban Centers

Restoring, revitalizing, and infilling urban centers takes advantage of existing streets, services and buildings and avoids the need for new infrastructure. This helps to curb sprawl and promote stability for city neighborhoods.

5. Vary Transportation Options

Giving people the option of walking, biking and using public transit, in addition to driving, reduces traffic congestion, protects the environment and encourages physical activity.

6. Build Vibrant Public Spaces

Citizens need welcoming, well-defined public places to stimulate face-to-face interaction, collectively celebrate and mourn, encourage civic participation, admire public art, and gather for public events.

7. Create a Neighborhood Identity

A "sense of place" gives neighborhoods a unique character, enhances the walking environment, and creates pride in the community.

8. Protect Environmental Resources

A well-designed balance of nature and development preserves natural systems, protects waterways from pollution, reduces air pollution, and protects property values.

9. Conserve Landscapes

Open space, farms, and wildlife habitat are essential for environmental, recreational, and cultural reasons.

10. Design Matters

Design excellence is the foundation of successful and healthy communities.

**American Institute of Architects, Ten Principles for Livable Communities*



Creating Complete Streets

To accomplish many of these principles, “Complete Streets” are essential. “Complete Streets” are streets that are designed, operated and maintained with everyone in mind, regardless of age or physical ability. They enable safe access for pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities. Complete Streets provide more transportation options, and providing attractive, dedicated facilities for each mode increases the likelihood that they will be used.

Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They support transit, by providing accommodations for buses, allowing them to run on time. Complete Streets create a safe environment for people to walk to and from train stations. Supporting bicycle, pedestrian and transit modes helps revitalize communities and attract new development, which in turn can boost property values.

There is no singular design prescription for a Complete Street; each street is unique and must be designed in response to its community context. Yet the common element in each Complete Street is that it is designed to balance safety and convenience for everyone using the road.

Complete Streets are not a new concept. Historically, our city streets included many modes. The evolution of New Britain’s street system is typical of how over time, streets which accommodated many modes of travel were redesigned primarily for the auto. Complete Streets are the reversal of that process, as the street is returned to a multi-user environment. A Complete Street is suitable for all locations where pedestrians, bicycles and transit are intended travel modes. Downtowns and commercial districts are perfect fits.

Main Street Looking North, circa 1900



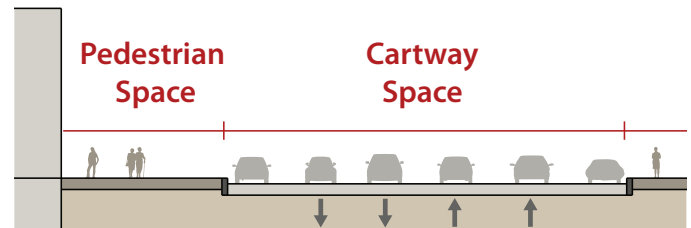
Main Street Looking East



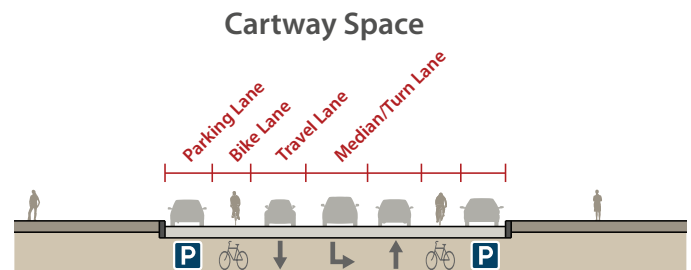
Creating a Complete Streets Typology

In transportation planning, streets are traditionally characterized by their functional classification, which broadly defines design and operational characteristics, primarily as they relate to serving motor vehicles. To develop a Complete Streets Master Plan for New Britain, a new typology which accommodates all modes was needed. Using the components below, streets were rethought to consider all of the space that occurs from building to building, so that pedestrian, bicycle, transit and vehicular needs could be considered and balanced.

Each street is comprised of a cartway space, which accommodates vehicles between the curbs, and a pedestrian space, which is the exclusive realm for people between the curb and the building line.

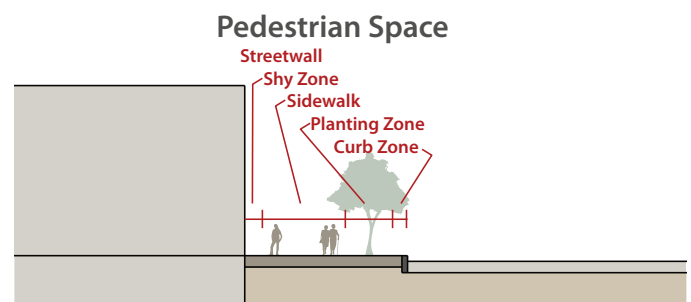


Depending on its use, the cartway space is further defined by the number and use of each travel lane, and other features, such as whether bicycles and parking are accommodated.



A well-designed pedestrian space encourages walking, which in turn, supports the local business environment. The pedestrian space can be further defined by a number of components:

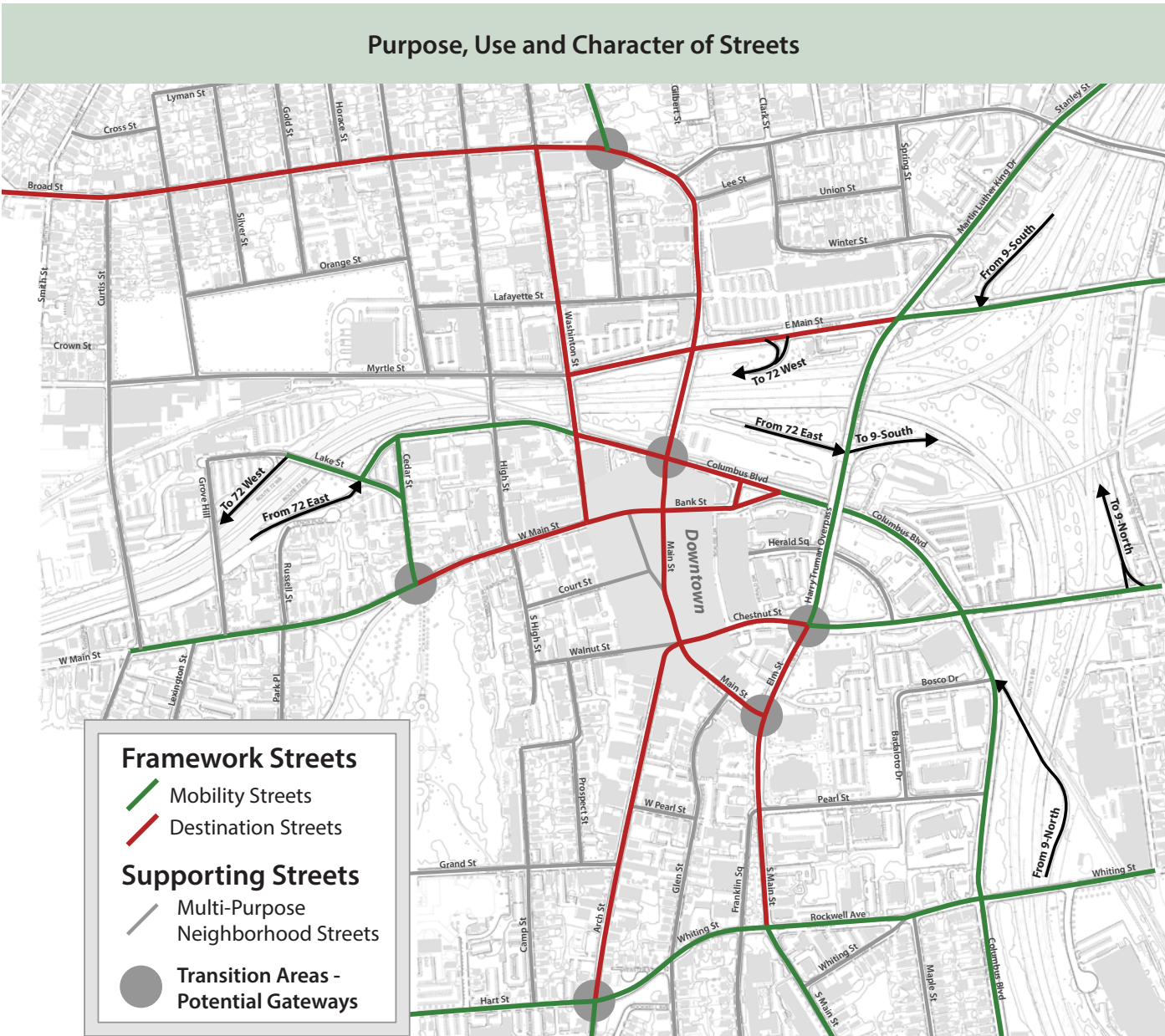
- Adjacent to the building line or streetwall, a “shy” zone is a space immediately adjacent to the building wall where doors open and pedestrians generally do not walk.
- The sidewalk space is a clear area whose primary purpose is to facilitate pedestrian movement.
- The planting zone is where street trees, pedestrian scale lighting and utilities are provided.
- The curb zone is adjacent to the cartway, and is designed with adjacent cartway features, such as parking, in mind.



Rethinking Roadway Dimensions for a Complete Streets Typology

New Britain has many streets which appear to have excess capacity. To develop a Complete Streets typology, each street's relationship with adjacent land uses and its function serving pedestrians, bicyclists, and transit, as well as cars, was examined. Existing physical and operational conditions were studied and each street's cartway and pedestrian space was assessed. Each street was then categorized by whether its primary purpose was as a framework street (those providing mobility or access to a destination), or as a supporting street (more local, multi-purpose street). Framework streets with what appeared to have excess capacity (i.e. more travel lanes than necessary to adequately serve auto travel) were then considered candidates for redesign.

The purpose, use and character for each street was then defined, with elements such as number, width and purpose of travel lanes, parking and bicycle facilities if provided, sidewalk and urban space character and dimensions, typical street furnishings, and setback and street wall character.



Road Diet

Roads identified as candidates for redesign were considered for road diets. A road diet reallocates how space is used in the existing curb-to-curb space if the street can perform with fewer or more narrow lanes. This “found” space could then be repurposed for wider sidewalks, plaza or open space for pedestrians, shared or dedicated bicycle facilities, or on-street parking. This reallocation is essential to rebalancing the transportation system and designing livable, Complete Streets.

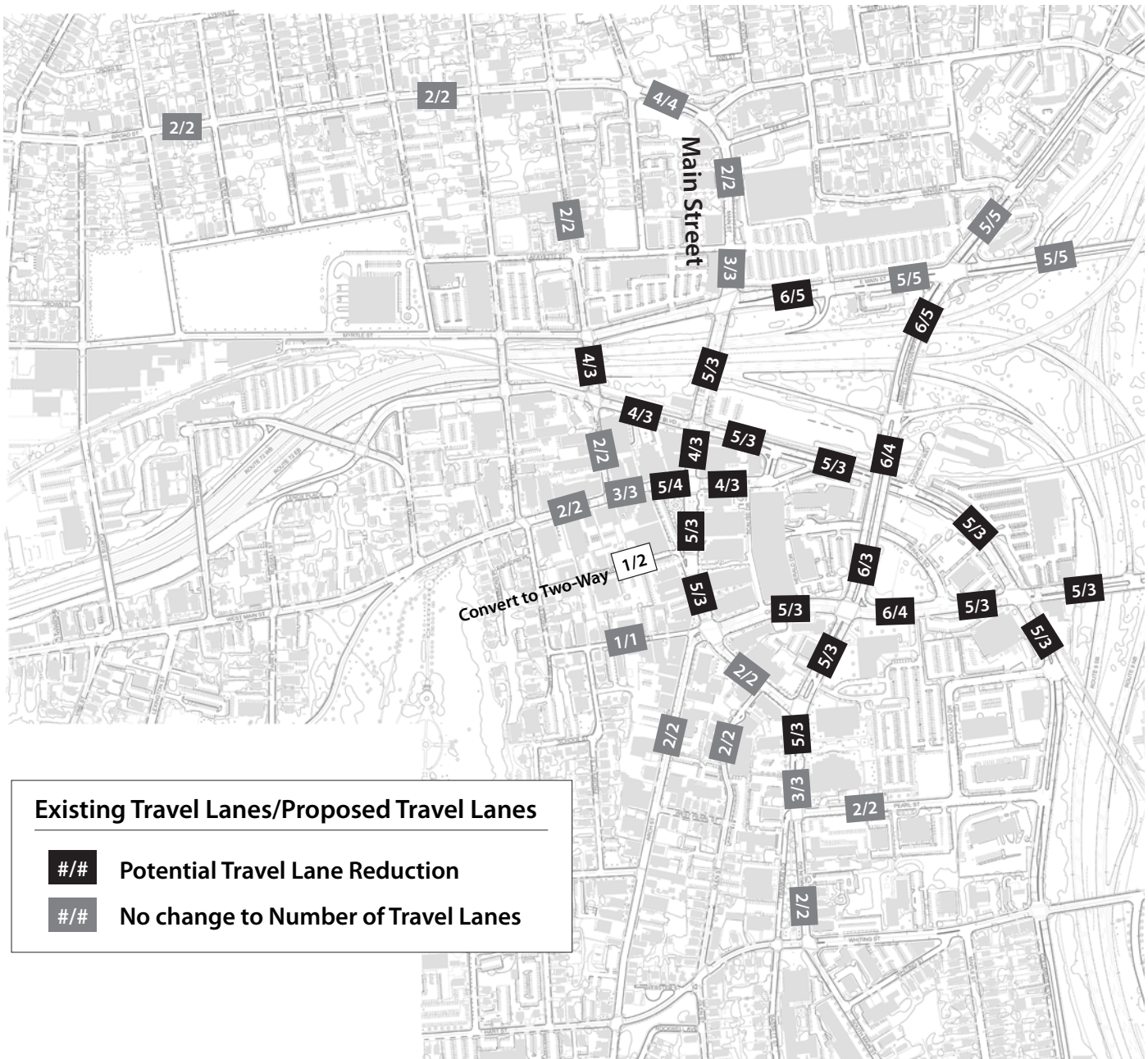
This section of Main Street (below) illustrates how the current five lane configuration with parking on the northbound side can be reshaped, if the amount of pavement needed for vehicles could be reduced. Without changing the 68 foot curb-to-curb line, the street can be reconfigured to one travel lane in each direction, a center turn lane for lefts onto West Main, and a dedicated bike lane in each direction. Parking could be provided on both sides, and almost ten additional feet could be added to Central Park’s edge.



This “before and after” section of Main Street looking north illustrates how it could be reshaped with a road diet to be a Complete Street.



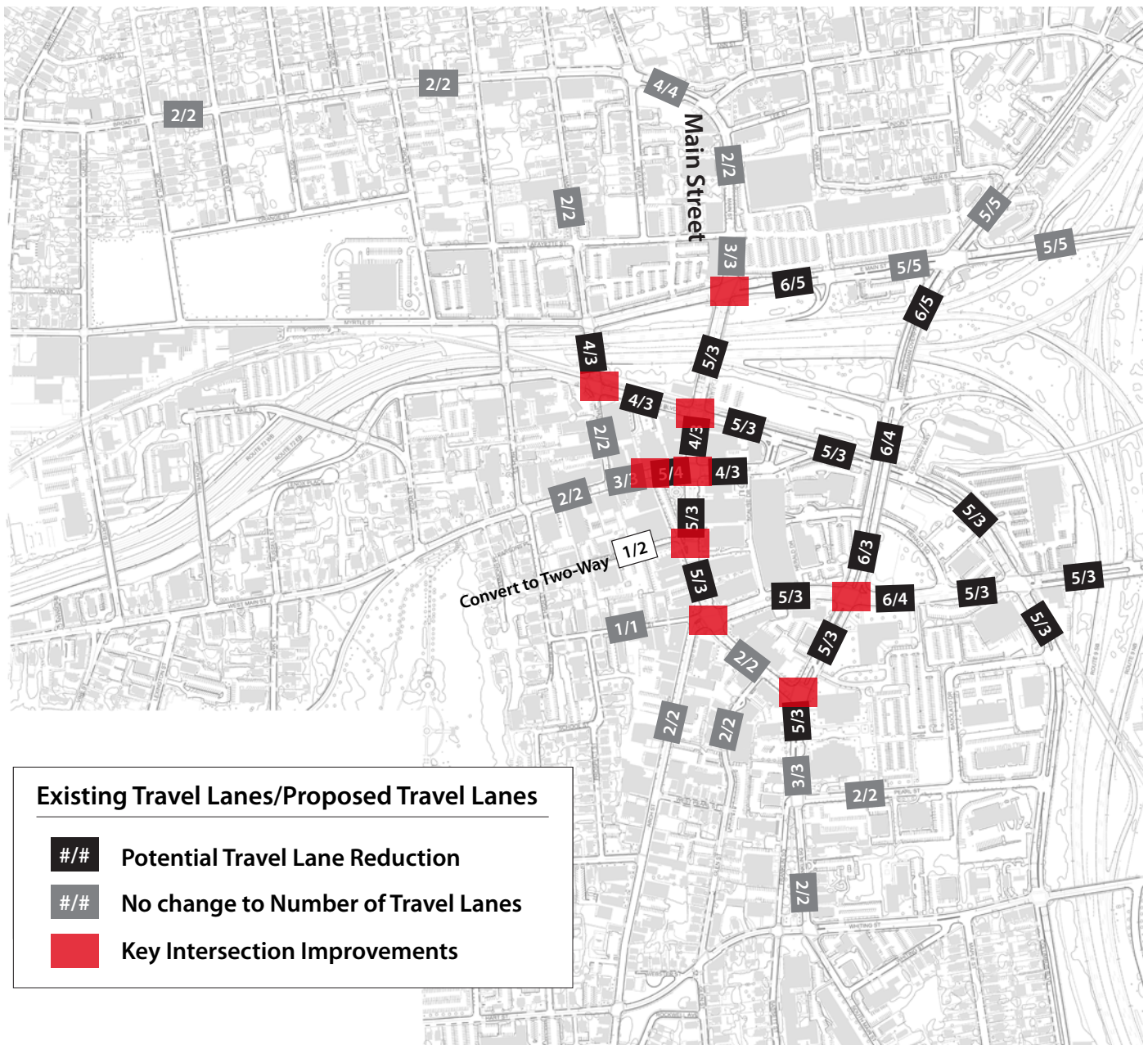
Road Diet



Based on a review of existing traffic data and field observations, candidate “road diet” streets were identified and tested. Road diets are proposed for all of the streets with four, five or six lanes. For most streets, the new configuration would be one lane in each direction with a center turn lane.



Key Intersections



Road diets also provide opportunities to create opportunities at intersections to benefit pedestrians. Bump-outs, improved pedestrian signalization and high-visibility crosswalks are proposed to shorten crossing distances for pedestrians. In concert with a road diet's reduced section, intersection improvements are proposed at nine locations (above). Of these, six are located on the Main Street corridor, the City's main thoroughfare.

Rethinking Parking

Rethinking Parking

Parking is a critical component of transportation and an important part of a economically viable downtown. Parking must be balanced, however, as providing on-street parking presents trade-offs for which include potential development opportunities, bike lane configurations, and providing open space. Part of the goal of walkable environment is to encourage the “park once” concept.

Parking was a very important issue to the Working Group. As part of the master plan process, New Britain’s parking was inventoried. The conclusion was that while downtown New Britain does not suffer from a lack of parking, it is not necessarily in the right location.

As a result, New Britain’s approach in the master planning process was to consider the issue of parking carefully, identifying key locations where parking is needed, and formulating an incremental approach to implementation. An example of this is a 33 space parking lot built adjacent to the new Police Station. This use serves a need today, but will ultimately be a transit-oriented development site, as the opportunity arises.



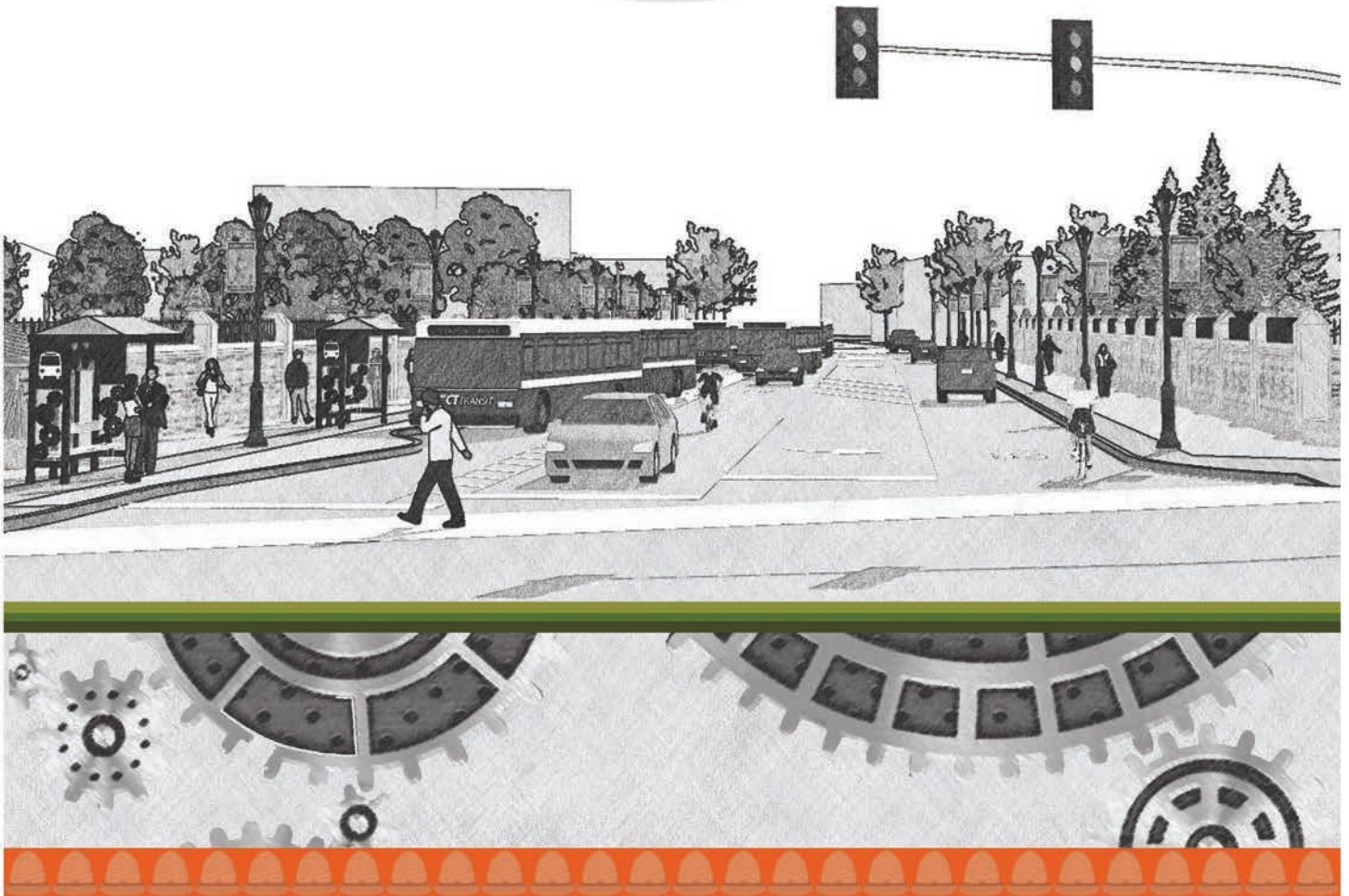
The Master Plan also provided the opportunity to explore innovative concepts to parking, including back-in angled parking, and shared parking. These and other downtown parking issues are discussed in greater detail in Chapter 6.



Parking in New Britain



Chapter 4: A Complete Streets Master Plan for Downtown New Britain



A Complete Streets Master Plan for Downtown New Britain

This Master Plan contains two interrelated elements - transportation and placemaking. The goal of the transportation element is to rebalance the transportation system in support of improving the pedestrian experience. Placemaking is accomplished through the streetscape design. This integrated transportation and landscape approach creates streets that are economic assets - places which attract people and business.

The *transportation element* focuses on applying a “Complete Streets” strategy - developing and implementing a balanced transportation system that provides mobility choices for pedestrians, motorists, bicyclists, freight movers and transit riders of all ages and abilities in the downtown area. Many streets in the study area network are proposed to undergo a “road diet”, which reduces unneeded space that is dedicated to the auto and uses the resulting space for other objectives, including improved pedestrian facilities, bicycle accommodation or parking.

The *landscape element* examines the entire study area for the pedestrian experience, enhancing existing public spaces, and in some locations, takes the reallocated space from the road diet to create a high-quality pedestrian environment of new and improved public spaces. Two concepts were developed for Central Park, which forms the centerpiece of the Master Plan.

The City has actively and successfully pursued grants to further its redevelopment objectives, including a HUD Sustainable Community Planning grant to fund the development of this Master Plan.

Downtown New Britain - Master Plan Study Area



Downtown New Britain: Assets and Challenges

Downtown New Britain has a number of assets to build upon:

- The existing system of roads and sidewalks provides a dense system of streets and sidewalks that provides choice for both vehicles and people.
- The many beautiful buildings that document its rich history, culture and architectural heritage. The strong mix of existing uses and potential re-use of downtown properties are all within easy walking distance.
- Many open spaces - including Central Park in the middle of downtown - which are so important to a livable environment
- Downtown blocks which are a walkable length; many have intact block faces with humanscale proportions that create a pedestrian friendly environment
- The major transit investment being made with CTfastrak, which has already spurred increased development in downtown New Britain, and should continue as transit-oriented development opportunities arise



Chapter 4: A Complete Streets Master Plan for Downtown New Britain

Yet the City has numerous challenges which must be addressed to develop a Complete Streets Master Plan for Downtown New Britain:

- The existing roadway system appears to have excess capacity, with rare time periods of congestion that are generally limited to portions of the morning and evening peaks.
- Many streets are very wide and have corresponding large intersections, which creates long crossing distances for pedestrians.
- Connections between neighborhoods and the downtown are well-used but provide a poor pedestrian environment. Rather than serving as gateways, these connections present challenging, unattractive conditions, particularly for pedestrians.
- Some portions of the pedestrian environment look and feel unsafe.
- With a combination of multiple parking structures, surface lots and on-street spaces, parking is plentiful - but perhaps not located where it is needed.
- Numerous surface parking lots occupy land more suited for mixed use development, which would have greater economic value to support transit-friendly objectives
- Throughout the study area, a cohesive, aesthetic streetscape treatment is lacking, street trees and plantings are often in poor condition, and in many locations there is a proliferation of signage.



Planning and Design Principles

There are a number of overarching themes or principles which have guided the development of this Master Plan and are threaded throughout the recommendations:

1. Capitalizing on What is Good: One of New Britain's greatest assets is that it already has the key ingredients of a livable downtown. Most of downtown is within a 1/4 radius, or a five to ten minute walk; what is not is within a 1/2 mile, or 10 to 20 minute walk. New Britain's downtown shopping and restaurants, residences, public spaces and parks, offices, institutions and public facilities all fall within these boundaries.

This compact, walkable scale is essential to supporting transit. CTfastrak provides a good catalyst for residential and mixed use transit oriented development within a short walk of the station. Successful TOD increases transit ridership. These ingredients are not easily created, and makes revitalizing the downtown and reestablishing it as a livable environment much easier.



2. Pedestrian Friendliness and Walkability: It is no coincidence that the most commercially successful and vibrant locations in downtown New Britain have roads right-sized for both pedestrians and vehicles, and also have the most attractive overall streetscape design. All roads need to be right sized for all users through road diets and other applicable methods.



Broad Street, above and below



Main Street, near Elm



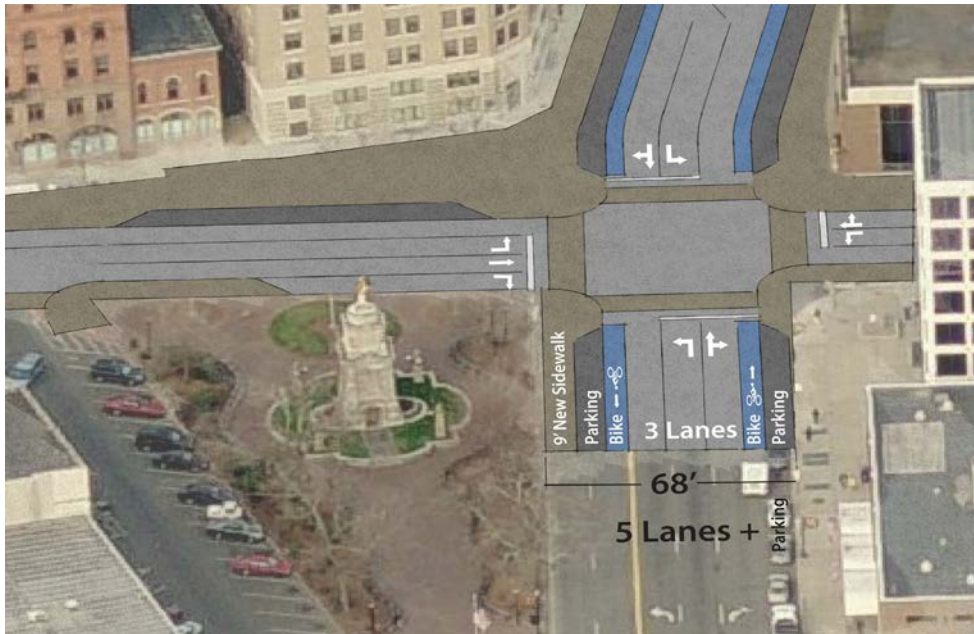
West Main Street, above and below



Implementing Road Diets in New Britain

New Britain has many streets which appear to have excess capacity. A “road diet” reallocates how space is used in the existing curb-to-curb space, if the street can perform with fewer or more narrow lanes. “Found” space could then be repurposed for wider sidewalks, plaza or open space for pedestrians, shared or dedicated bicycle facilities, or on-street parking. This reallocation is essential to designing livable, Complete Streets.

This section of Main Street (below) illustrates how the current five lane configuration with parking on the northbound side can be reshaped, if the amount of pavement needed for vehicles could be reduced. Without changing the 68 foot curb-to-curb line, the street can be reconfigured to one travel lane in each direction, a center turn lane for lefts onto West Main, and a dedicated bike lane in each direction. Parking could be provided on both sides, and almost ten additional feet could be added to Central Park’s edge.



This “before and after” section of Main Street looking north illustrates how it could be reshaped with a Road Diet to be a Complete Street.

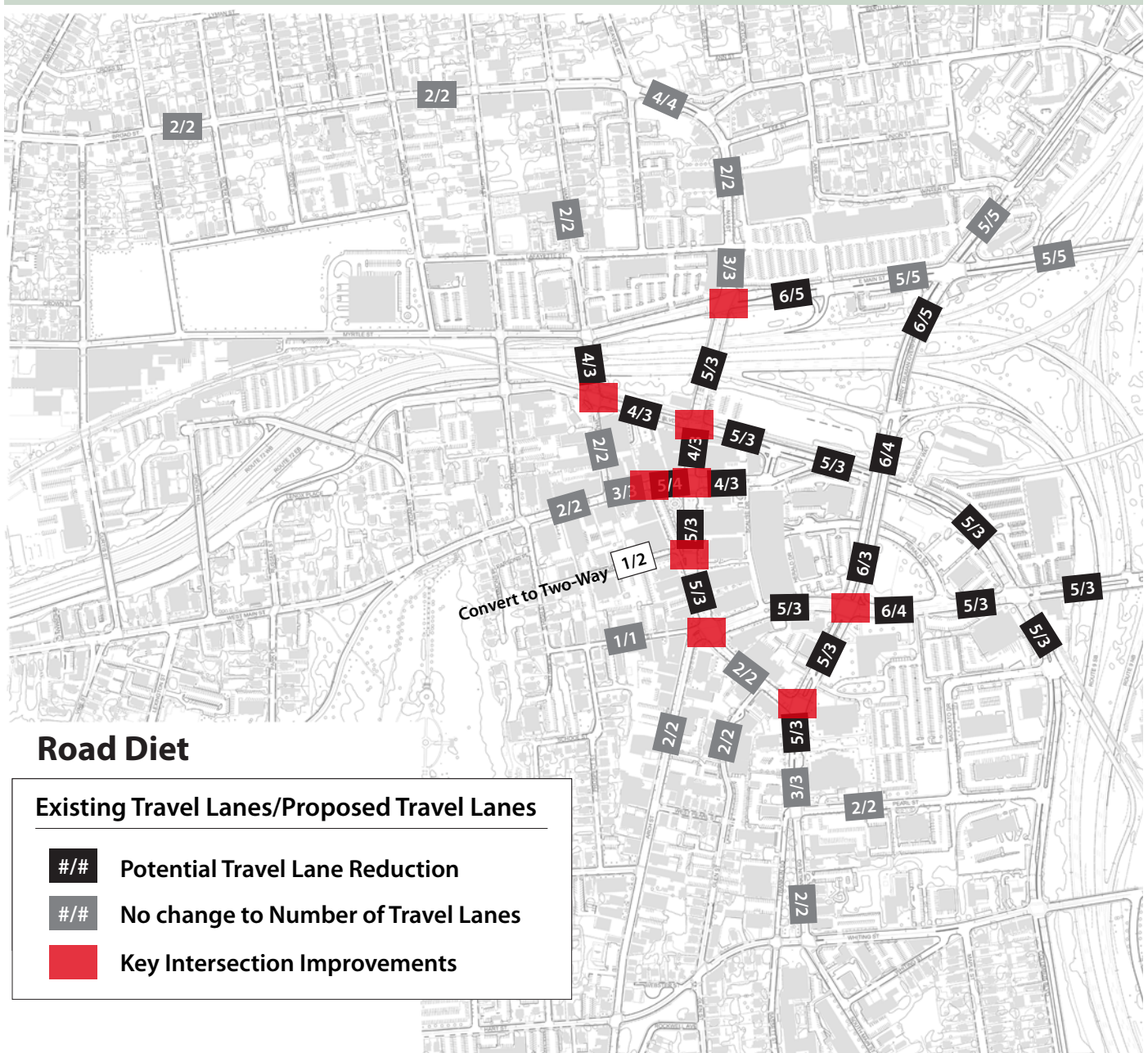


Chapter 4: A Complete Streets Master Plan for Downtown New Britain

Road diets are proposed for all of the streets with four, five or six lanes. The most notable road diet is along Main Street, which forms the central spine of the downtown network. Washington Street and Harry Truman Overpass as they cross Route 72 are also proposed for road diets, to allow a more pedestrian friendly environment to re-link the neighborhoods to the downtown.

Road diets create opportunities to improve the pedestrian environment at intersections. By reducing the curb-to-curb dimension of the street, crossing distances are shortened. In concert with a road diet's reduced section, intersection improvements are proposed at nine locations. Bump-outs, improved pedestrian signalization and high-visibility crosswalks are proposed to shorten crossing distances for pedestrians. Of the nine key intersection improvements proposed, six of them are on Main Street.

Candidate Road Diet, Improved Intersections and Enhanced Pedestrian Crossings



Rethinking Parking

Parking is a critical component of transportation and an important part of a economically viable downtown. Parking must be balanced, as adding more on-street parking results in trade offs that must be weighed against achieving a number of other desirable objectives, including capitalizing on potential transit-oriented development opportunities, providing bike lanes, and creating or enhancing open space.

Parking was a very important issue to the Working Group. As part of the master plan process, New Britain's parking was inventoried. Part of the goal of a walkable environment is to encourage the "park once" concept. The conclusion was that while downtown New Britain does not suffer from a lack of parking, it is not necessarily in the right location.

As a result, New Britain's approach in the master planning process was to consider the issue of parking carefully, identifying key locations where parking is needed, and formulating an incremental approach to implementation. An example of this is the new, 33 space parking lot built adjacent to the new Police Station. This use serves a need today, but will ultimately be a transit-oriented development site, as the opportunity arises.

The Master Plan also provided the opportunity to explore innovative concepts for parking, including head-out angled parking, and shared parking. Head-out angled parking (sometimes called "back-in angled parking") addresses one of the most common causes of accidents - blocked visibility when backing out of a standard parking stall. With head-out angled parking, the driver maneuvers the vehicle into the stall in a two step process, much as with parallel parking. When leaving, the driver can see both on-coming vehicles and bicyclists, and pull out when clear. This results in a safer environment for drivers, bicyclists and pedestrians. Montreal, San Francisco, Washington, DC and Pensacola are but a few cities which have implemented head-out angled parking as part of their parking design.

Shared parking is a critical dimension to the successful mixed use development that New Britain seeks downtown in support of CTfastrak. Traditional parking standards require each building or facility include a minimum amount of off-street parking supply, based on studies of peak-period demand. Parking lots often have some degree of unused spaces, even at peak times. Shared parking uses ratios which more accurately reflect how different land uses have different peaks and therefore make different demands for parking, which can result in less total need. This in turn provides a more efficient use of land. The *Urban Land Institute*, *American Planning Association*, *Transportation Research Board* and *Institute of Transportation Engineers* are among the many professional associations that have documented this best practice.



Kelowna, British Columbia, Canada

These and other downtown parking issues are discussed in greater detail in Chapter 6.

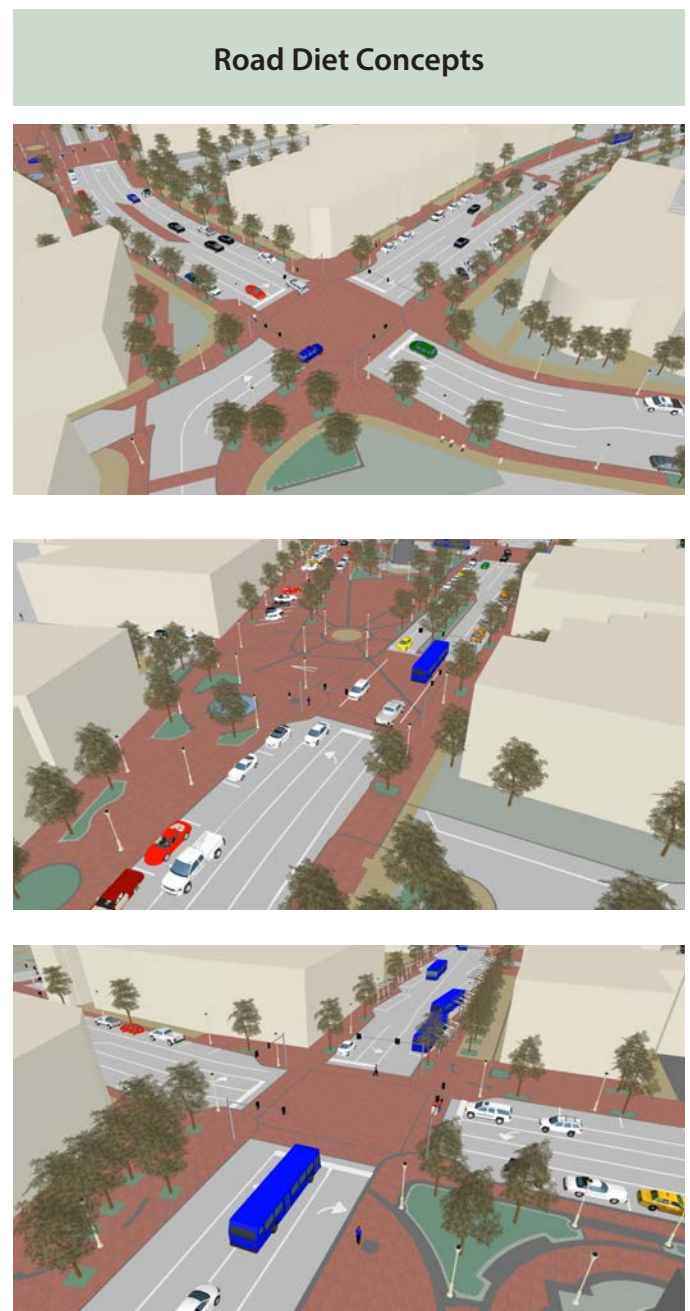
Transportation Concepts and Traffic Analysis

To test the viability of road diets, traffic analysis must be conducted to determine how much of the existing road can be repurposed for other uses. A traffic analysis using VISSIM was conducted for the transportation elements in the downtown. VISSIM is a multi-modal traffic flow simulation software package used to model traffic patterns and estimate the impacts of proposed changes to a transportation network. VISSIM stands for “**V**erkehr **I**n **S**taedten - **S**IMulationsmodell”, which stands for “traffic in cities - simulation model”.

The transportation elements modeled included a three-lane road diet cross-section along Main Street from Columbus Boulevard to Arch Street/Chestnut Street, and along the Chestnut Street approach to Main Street. This three-lane cross-section included one travel lane in each direction and left turning lanes at the intersections. The lane configuration changes along Bank Street and West Main Street as part of the transportation concept were also included in the VISSIM model.

The proposed transportation element reverses the circulation pattern of the Court Street parking lot from the existing north-south pattern to a south-north pattern. Both circulation patterns were analyzed in VISSIM. As the simulation results were similar for both patterns, the discussion and results to follow focus on the proposed concept with the reversed (south-north) circulation pattern.

As shown at right, proposed road design for Main at Chestnut/Arch (top), Court Street/Central Park (center) and Bank Street (bottom)



The PM peak hour was selected for operational analysis, as existing traffic volumes for most movements to and from Main Street were higher in the PM peak hour than in the AM. The exclusive pedestrian phase was *retained* in the analysis, as the City prefers to maintain the exclusive pedestrian phase.

Table 2 shows the PM peak hour travel time simulation results for the proposed concept compared to Existing Conditions results.

Table 2: Concept Travel Time Results Comparison to Existing

Peak	Direction	Distance (mi)	Travel Time (sec)		Delta
			Existing	Plan	
PM	NB	0.43	145	151	4%
	SB	0.46	159	168	6%

An initial simulation was performed with no changes to signal timing. It showed consistent queuing spillback between intersections, specifically in the northbound direction between Columbus Boulevard and Arch Street/Chestnut Street. Initial modeling results had 57% and 13% increase in travel time for the northbound and southbound directions, respectively.

The key cause for the queuing problem is that the Main Street/Columbus Boulevard intersection is not coordinated with the rest of the Main Street corridor. Columbus Boulevard is the coordinated phase under the Existing Conditions, indicating that all unused green time is given to Columbus Boulevard and not Main Street. The simulation revealed a lack of coordination between the two intersections. Northbound vehicles would receive green at the Bank Street intersection and arrive on red at the Columbus Boulevard intersection, due to lack of coordination between the two intersections.

To improve these conditions the following signal timing changes were made:

- Main Street/Columbus Boulevard changed to a 90 second cycle and coordinated with the rest of the Main Street corridor,
- Main Street is the coordinated phase and detection added to Columbus Boulevard, and
- Optimized offsets along the Main Street corridor within the study area.

The simulation results in the following section assume the above assumptions are included in the design.

Transportation Element Simulation Results

The simulation travel time results show a four to six percent increase in travel time along Main Street in the study area when converting the existing road configuration to the proposed transportation element. **Table 3** shows the PM peak hour LOS, delay and queuing simulation results for the proposed transportation element compared to Existing Conditions results.

Table 3 results show overall intersection LOS D or better for all intersections in the study area for Existing Conditions and proposed concept simulation analysis. While the maximum queues were noted to increase at some intersections, average queuing results showed minor increases for the Concept condition at Main Street/Columbus Boulevard and Main Street/Arch Street/Chestnut Street intersections, but still less than 75 feet, or about three car lengths. A detailed discussion of the LOS results and queuing is provided in a technical memorandum.



Table 3: Concept LOS and Queuing Results Comparison to Existing

Int ID	Intersection	Avg Queue (ft)		Max Queue (ft)		LOS (Delay)	
		Existing	Plan	Existing	Plan	Existing	Plan
1	Main/Columbus Blvd	37	70	268	424	C (24)	D (35)
2	Main/W. Main/Bank Streets	31	35	331	333	C (22)	C (24)
3	Main/Court Streets	10	15	241	318	A (9)	A (9)
4	Main/Arch/Chestnut Streets	41	59	373	483	C (26)	C (32)
5	Main/Glen Streets (unsignalized)	4	4	132	111	A (6)	A (6)
6	Main/Elm Streets	17	18	269	285	B (11)	B (12)
7	Columbus Blvd/Bank Street (unsignalized)	0	2	36	171	A (1)	A (3)
8	W. Main Street/Central Park	8	20	225	244	A (7)	B (12)
9	W. Main/Washington Streets	24	25	300	319	B (17)	B (17)
10	Chestnut/Elm/Harry Truman Overpass	57	59	318	441	D (38)	D (39)

Elm Street Roundabout Analysis

The proposed transportation element also includes a single-lane roundabout at the Elm Street/Chestnut Street/Harry Truman Overpass intersection as a gateway feature. The roundabout was examined on a preliminary basis to determine if it was a viable concept for further study. Two methods were utilized: (1) entering plus circulating volume analysis, and (2) National Cooperative Highway Research Program (NCHRP) Report 572, Roundabouts in the United States analysis. The entering plus circulating volume analysis is an initial screening method where the volume entering a single lane roundabout plus the volume circulating within the roundabout at the entry point for the approach should be less than 1000 vehicles per hour (vph) but not to exceed a maximum of 1200 vph. The AM and PM peak hours had maximum approach entering plus circulating values of 925 vph and 954 vph, respectively, which is less than the desired 1000 vph limit for a single-lane roundabout.

The NCHRP Report evaluated roundabouts in the United States and developed capacity equations to evaluate roundabout capacity. The results from this analysis show volume to capacity ratios of less than 0.85 and LOS C or better for all approaches during AM and PM peak hours.

Based on preliminary analysis of the Elm Street/Chestnut Street/Harry Truman overpass intersection, it appears a single-lane roundabout is a feasible option from a traffic operations and capacity standpoint.



3. Placemaking: Downtown New Britain has many positive features, including strong unique public art and monuments, good public spaces and parks, and great historic structures and architecture. The Master Plan addresses ways to capitalize on what's good, and uses these strong points as the foundation for placemaking in a way that will help revitalize Downtown New Britain.



Rose Garden, Walnut Hill Park



City Hall, above and below



WWI Monument, Walnut Hill Park



"Home" Sculpture, Craig M. Frederick



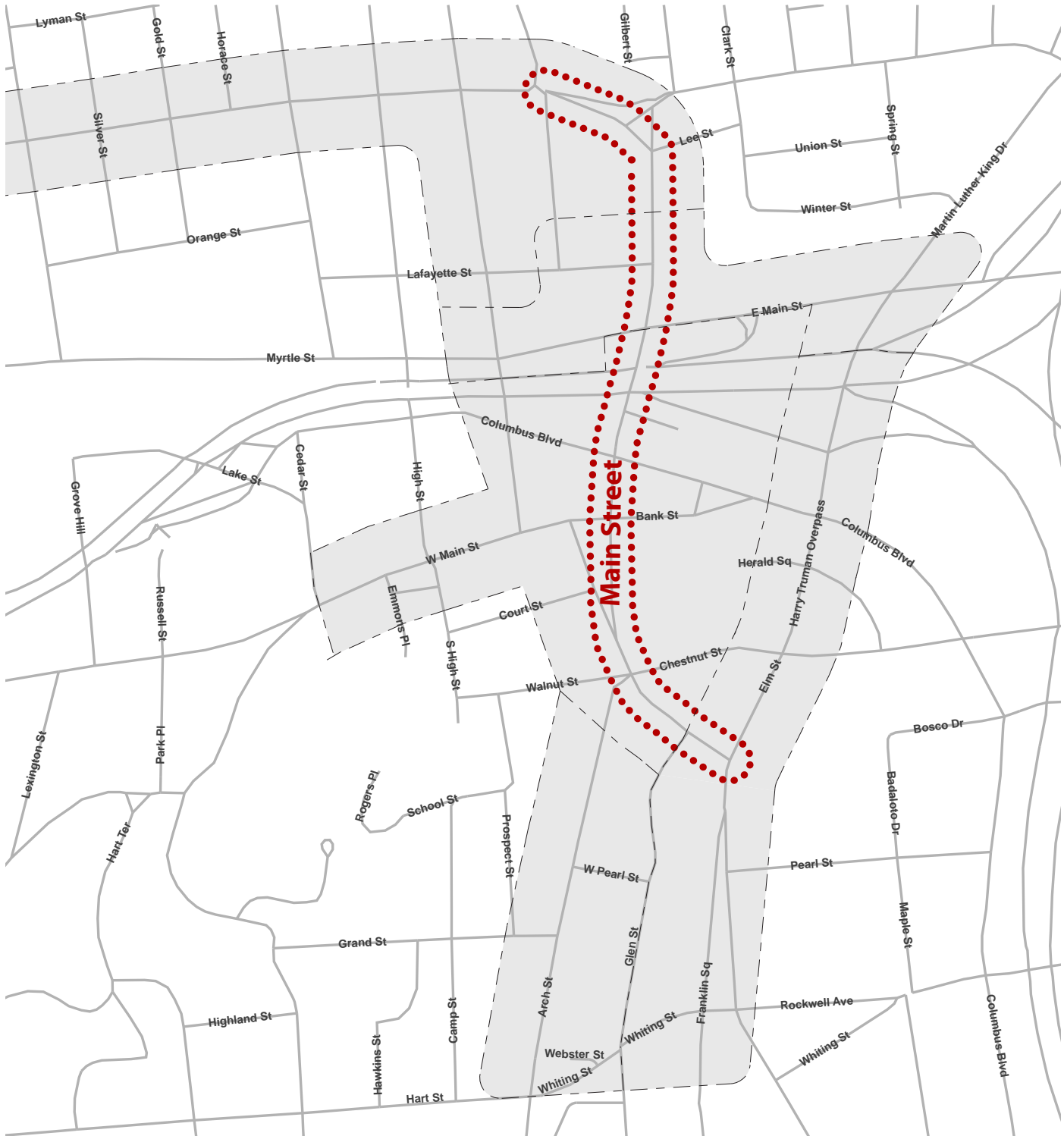
Chapter 4: A Complete Streets Master Plan for Downtown New Britain

Interesting and attractive design elements help create special places. Repeating these elements throughout an area is an important component of placemaking too.

An attractive and consistent streetscape needs to be carried out through the downtown to give New Britain a better and more positive sense of identity and place. To accomplish this, the Master Plan has established specific streetscape design elements, including: sidewalk brick patterns; street trees; tree surrounds; street furnishings such as benches, trash and recycling containers; bike racks; wayfinding signage, and pedestrian lighting. The Master Plan palette and standards are discussed in more detail in Chapter 11.



4. Focus on the Main Street Corridor: While the Master Plan process re-examined the downtown street network, it placed primary focus on the Main Street corridor. This corridor serves as the central spine for the downtown, the front door for CTfastrak, the major connection between downtown and neighborhoods, and the northern and southern gateway into the downtown. Making Main Street a pedestrian friendly, livable Complete Street will support downtown economic development and CTfastrak.



Existing Conditions



Main Street south of Columbus Boulevard, above and below



Main Street over Route 72



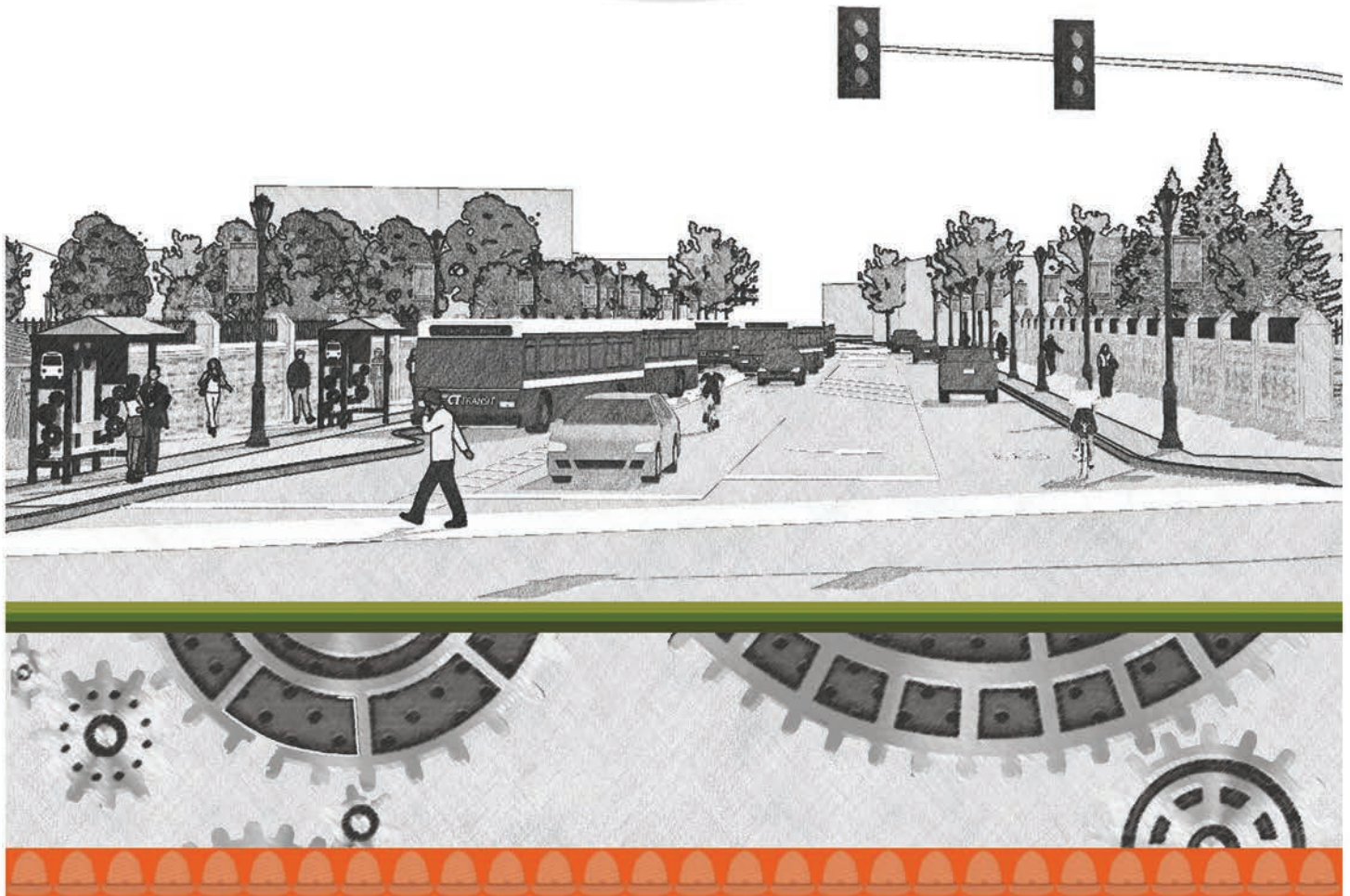
Main Street near Central Park

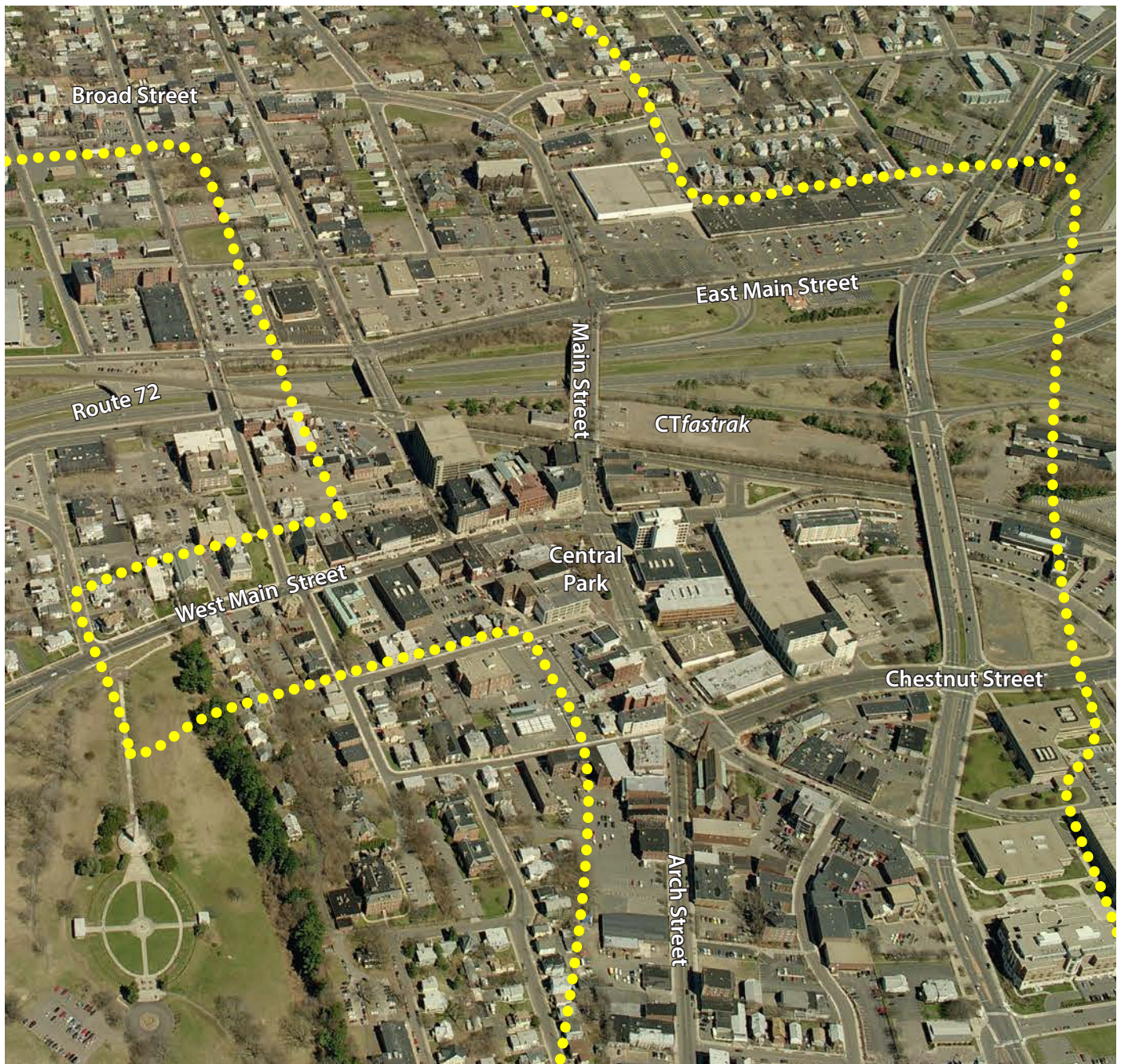


Main Street north of Chestnut Street



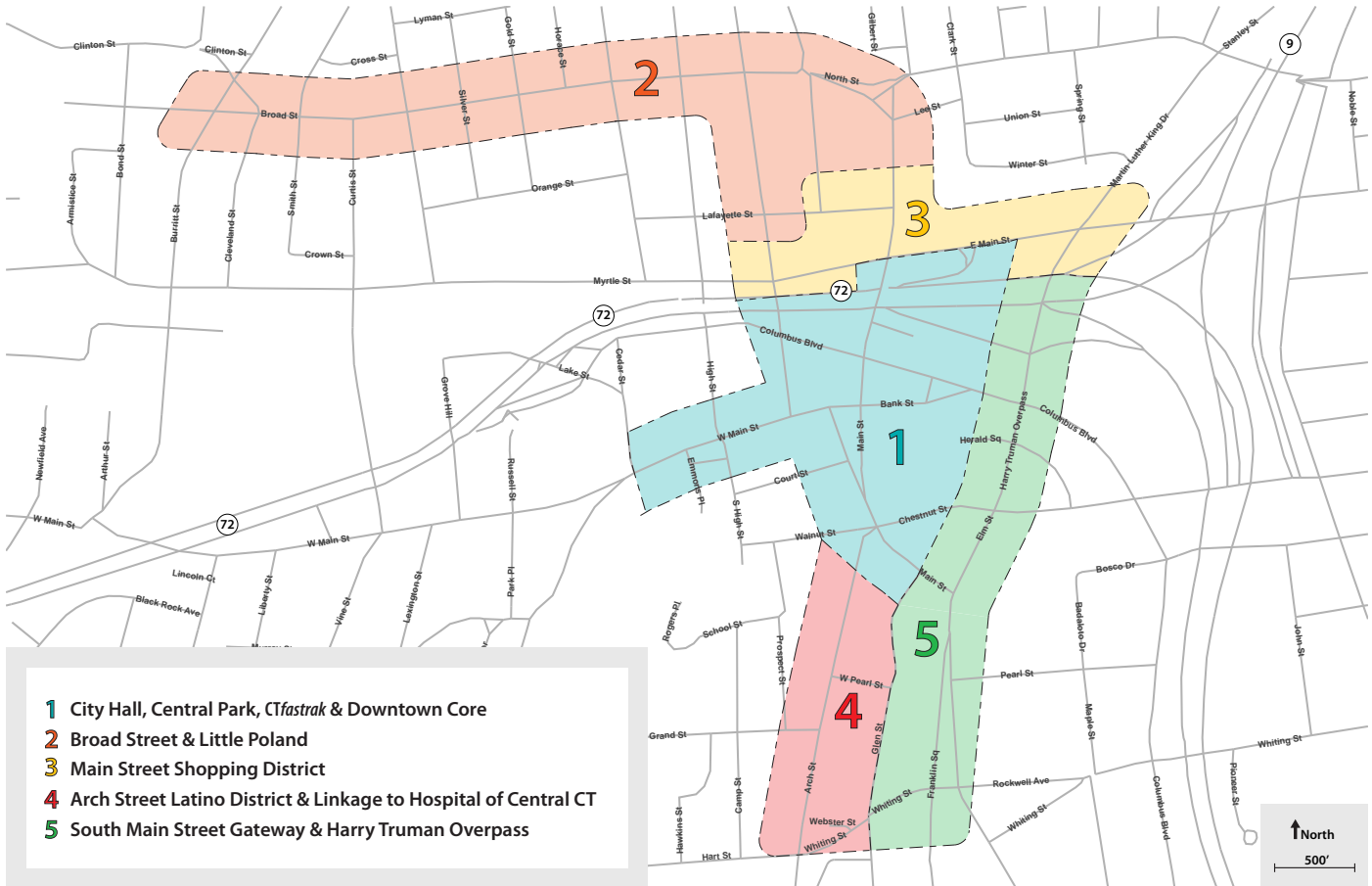
Chapter 5: Study Area Design Concepts





The Master Plan looks at five (5) distinct study areas that when combined make up downtown New Britain. Each of these five areas serves a different purpose, and will require a different level of effort of improvements. The study areas themselves largely focus on the Main Street corridor. Through this Master Plan, the intent is to establish a common look and a district sense of place throughout the downtown area, which will be accomplished through Complete Streets-inspired streetscape design standards that will be constructed as funding becomes available.

Master Plan Study Area Map



Study Area 1: City Hall, Central Park, CTfastrak & Downtown Core

Study Area 1 is the largest of the study areas, and includes the core area of the project and the core of downtown. It is home to City Hall, Central Park and its Civil War Monument, several historical and commercial buildings, and the gateway BRT station for CTfastrak.

Study Area 2: Broad Street & Little Poland

Study Area 2 focuses on a section of Main Street and New Britain's Broad Street, known locally as Little Poland. This area is currently the most successful mixed-use commercial corridor in the downtown.

Study Area 3: Main Street Shopping District

Study Area 3 primarily focuses on East Main Street (S.R. 174) along its frontage at New Brite Plaza, the largest retail shopping area in the downtown.

Study Area 4: Arch Street Latino District & Linkage to Hospital of Central CT

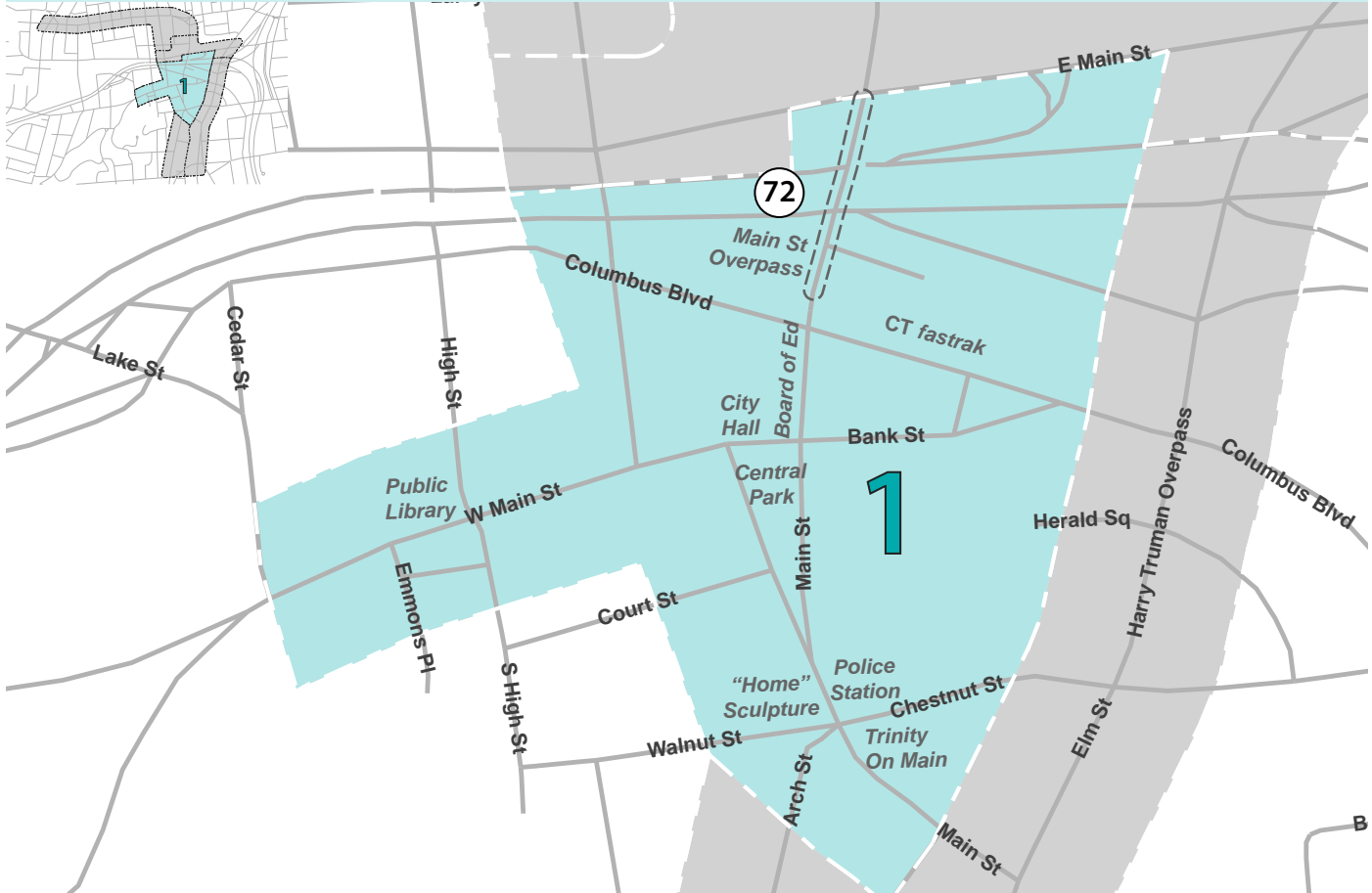
Study Area 4 primarily focuses on Arch Street, which connects downtown to the Hospital of Central Connecticut. Arch Street is moving towards becoming the Latino cultural center of New Britain.

Study Area 5: South Main Street Gateway

Study Area 5 includes South Main Street, Elm Street and the Harry Truman Overpass, all of which are on State Route 71. This study area contains New Britain's Courthouse and Franklin Square Green, which was refurbished as part of the City's Arch Walk Way project.



Study Area 1: City Hall, Central Park, CTfastrak & Downtown Core



Study Area 1 is the largest of the study areas, and contains the core area of the project and the core of downtown New Britain. This area brings together the intersections of both Main Street and West Main Street, and is home to City Hall, the Board of Education, the Police Station Headquarters and several historical and commercial buildings.

Study Area 1 is centered by Central Park, where the 44 foot high Civil War Monument with its winged glory statue is located. The gateway BRT Station to CTfastrak is also located within Study Area 1.

This is the area which will require the largest capital investment to improve, as it not only involves the largest project area, but also requires costly road diets to once again make this area pedestrian friendly again.



Civil War Soldiers and Sailors monument, Central Park

Chapter 5: Study Area Design Concepts



West Main Street



Main Street Overpass of Route 72



Central Park



Columbus Boulevard Looking East



Trinity-on-Main



The "Home" Sculpture at Main and Arch Streets



Main Street Looking North towards Columbus Boulevard



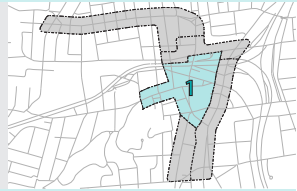
Chestnut Street



Study Area 1: City Hall, Central Park, CTfastrak & Downtown Core

Main Street

from E Main to Chestnut



Existing Conditions:

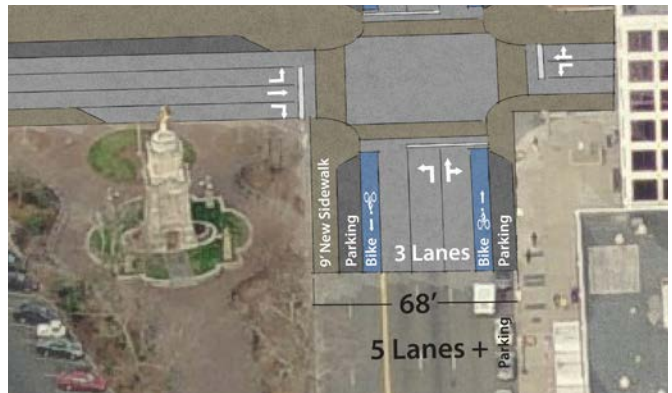
New Britain's street network in the downtown area provides far more space for vehicles than needed. While the sidewalk network is by and large intact, it lacks amenities and interest for pedestrians. Central Park, the main open space for New Britain's downtown area, looks tired and has an unsafe feeling. The transportation concepts developed for this area provided the opportunity to develop two different options to enlarge Central Park, and create a series of pedestrian spaces.

Design Challenges

- Main thoroughfares are wide streets with long crossing distances for pedestrians at intersections
- Main Street over Route 72 is a well-used pedestrian route that needs to be made pedestrian friendly
- Sidewalk varies in width and condition but has little interest for pedestrians
- No provisions for bicyclists
- Lack of street trees in some locations and trees in poor condition in others
- Pedestrian lighting not consistently provided
- While the on-street parking supply is good, it is not necessarily located where it is needed, or configured in a manner which supports downtown economic development
- Downtown area needs more and better open spaces

Design Solutions

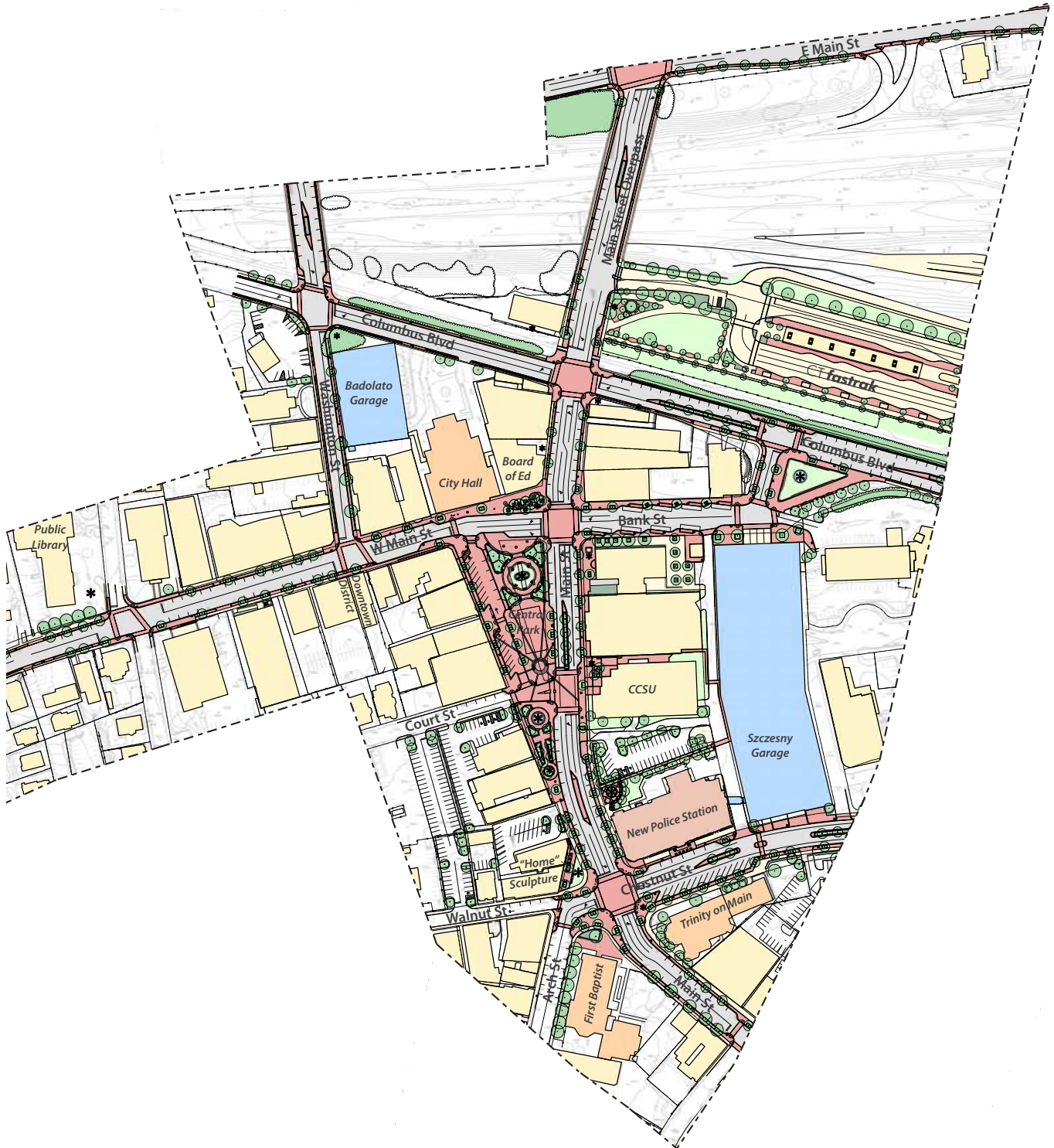
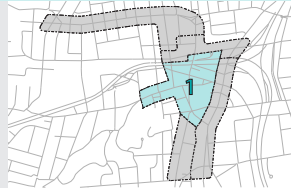
- Create road diets on Main and Chestnut to provide improved sidewalk space, enhanced open space, bicycle accommodation or parking
- Redesign Central Park to create a more attractive focal point for the downtown, using the historic concept of a city square to create a series of linked urban spaces or a town green option.
- Introduce water as a feature in the park design
- Provide bump-outs to improve pedestrian access and reduce crossing distances at key intersections
- Consider head-out angled parking in strategic locations
- Remove overgrown or sickly trees to increase visibility in the park
- Provide new pedestrian and special lighting
- Create more visual interest by adding art and sculpture
- Provide special wayfinding signage, including historical signs



Study Area 1: City Hall, Central Park, CTfastrak & Downtown Core

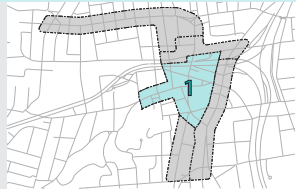
Main Street

from E Main to Chestnut



Study Area 1: City Hall, Central Park, CTfastrak & Downtown Core

Central Park



Existing Conditions:

Central Park is the main organizing open space for downtown New Britain but its problems are many:

- The existing park design and condition make the park feel unsafe to pedestrians and creating an isolating feel to the park interior
- Overgrown trees, including the Guida Christmas tree, block views of park monuments and sculpture such as "Winged Glory"
- Trees are generally in poor condition
- Many of the existing plant species are poor choices for this urban location
- Existing design palette is tired
- Space needs to be redesigned to be a focal point and to attract people
- The Court Street area south of Central Park is a confusing jumble of activity with cars and people mixing in unsafe conditions

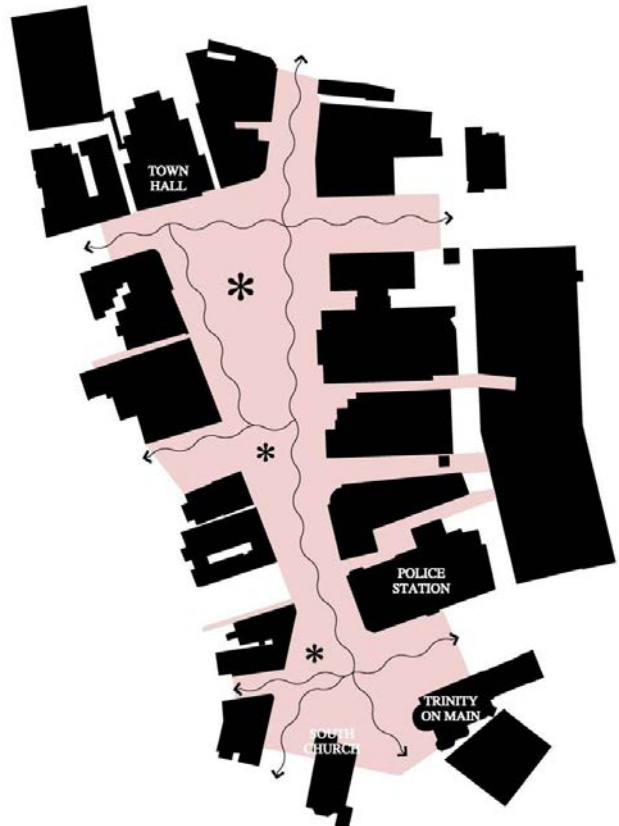


Trees Obscure Visibility into Central Park



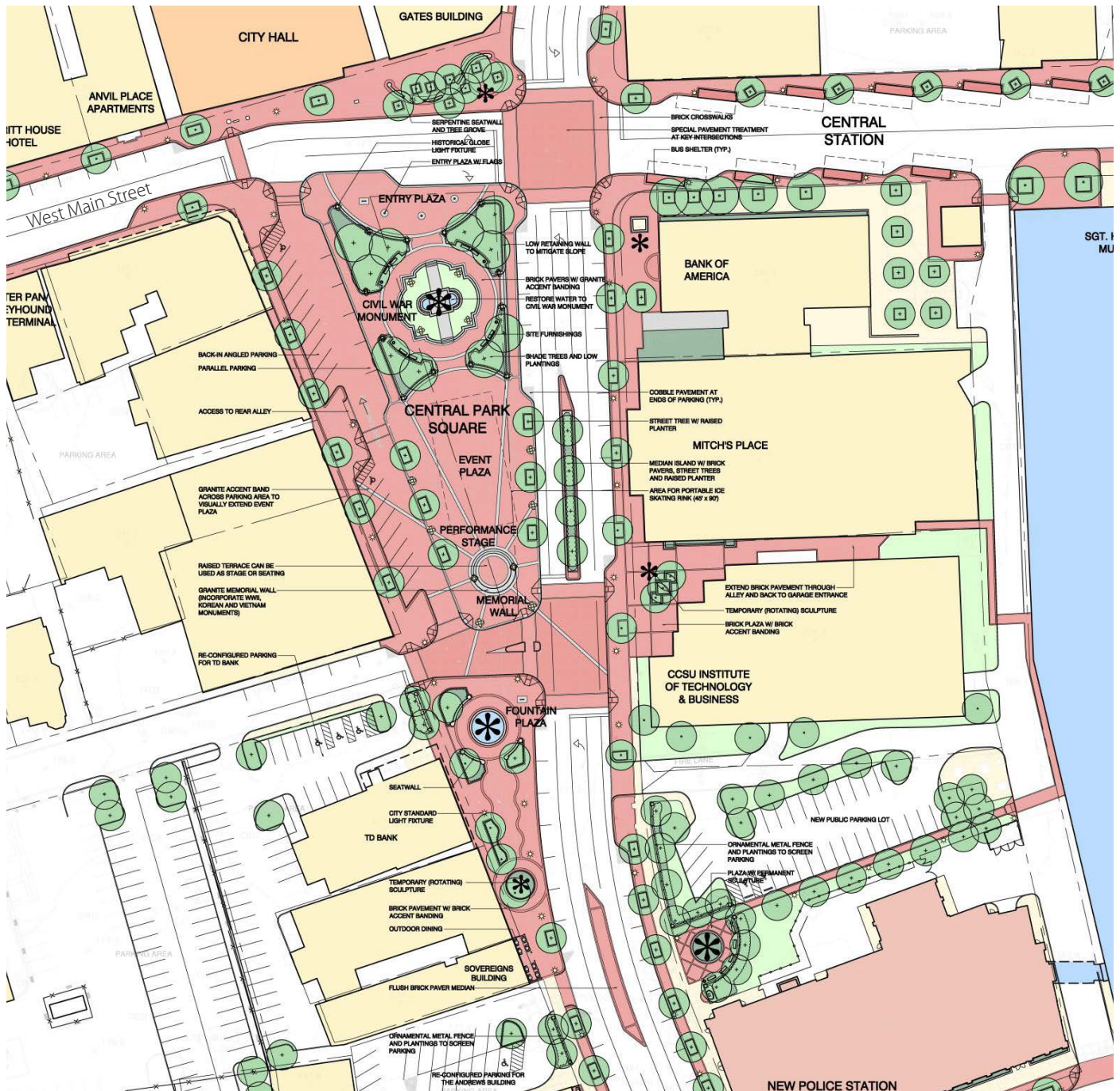
Design Solutions:

- Open up the park's visibility, making it more attractive and feel safer
- Create a great space that people will want to use- either a flexible hardscape design that can host large events, or a softer, town green design.
- Apply a consistent palette to connect the space to the overall master plan
- Repurpose the area gained through the Main Street road diet to expand Central Park's open space and extend it southward, provide more sidewalk area, create additional on-street parking, and create a better pedestrian crossing environment at Court Street.
- Introduce water as a key element to serve as a focal point and attract people



Chapter 5: Study Area Design Concepts

Streetscape Plan with Central Park Square Option

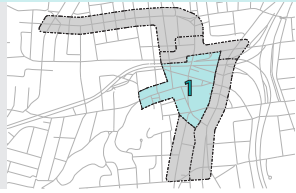


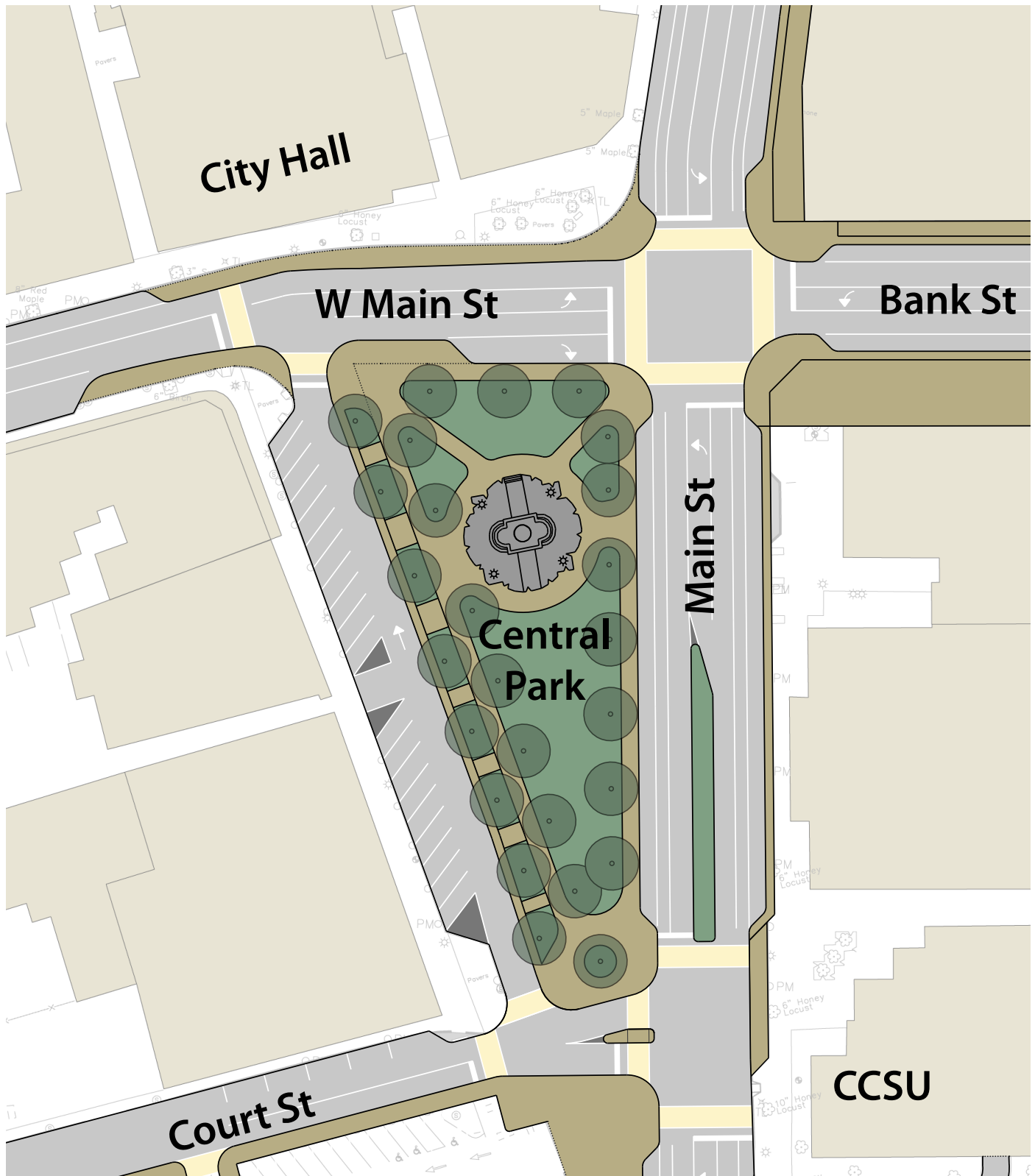
Drawing inspiration from the historic pedestrian squares and plazas of many European cities, Central Park as a City Square (left) is designed as a more flexible space that can be used for a variety of civic events. The design above achieves a balance between more intimate sitting areas, and larger civic spaces. Pavement pattern and streetscape details are extended to the surrounding streets and walkways to reinforce this concept. Flush curbing is proposed in specific areas to help extend the space beyond the existing park borders. This approach greatly expands the usable area for gatherings, including outdoor performances, festivals, and other events without the need for road closures or other costly measures. In this option, the Main Street road diet provided the opportunity for Central Park to be extended farther south past Court Street and adds a water feature in the new southern section of Central Park.

Study Area 1: City Hall, Central Park, CTfastrak & Downtown Core

Main Street

from E Main to Chestnut



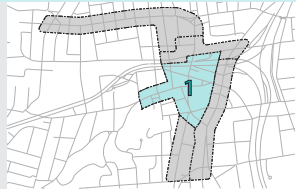


New Britain has few truly green spaces downtown, and this alternative concept was developed with the objective of softening the feel of downtown. This concept could also be accomplished at a much lower cost than the Central Park Square Option.



Study Area 1: City Hall, Central Park, CTfastrak & Downtown Core

Main Street
at Court Street



Court Street Intersection Improvements

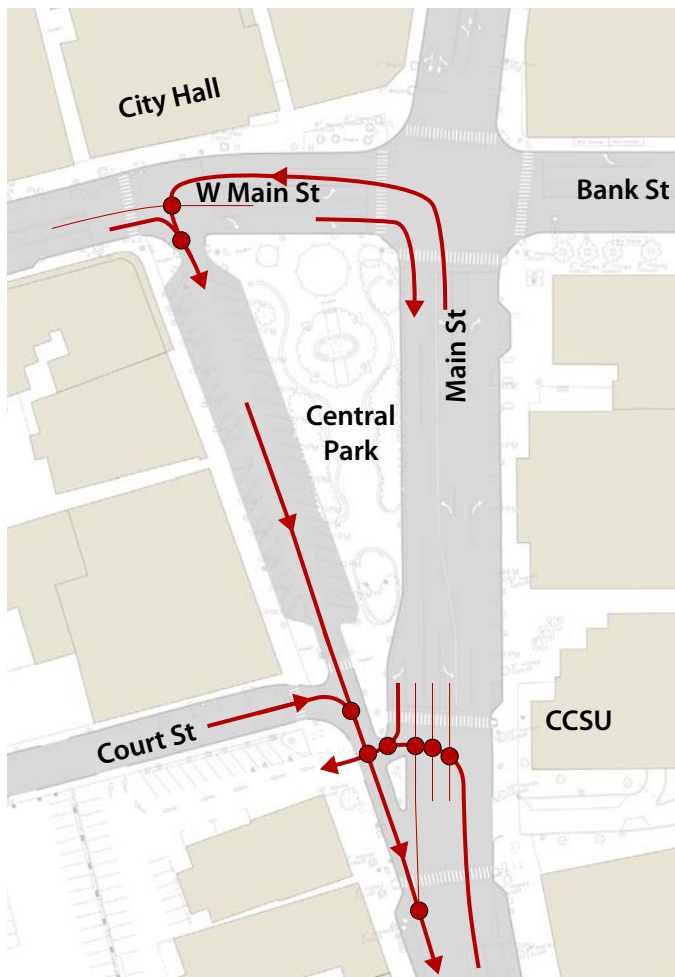
Vehicular and pedestrian circulation around Central Park needs improvement. The figure lower left shows the area's numerous movements and conflict points.

Today, one-way eastbound Court Street and one-way southbound Main Street (the Central Park parking lane) merge at a stop controlled intersection to form the eastbound approach to the Main Street signalized intersection.

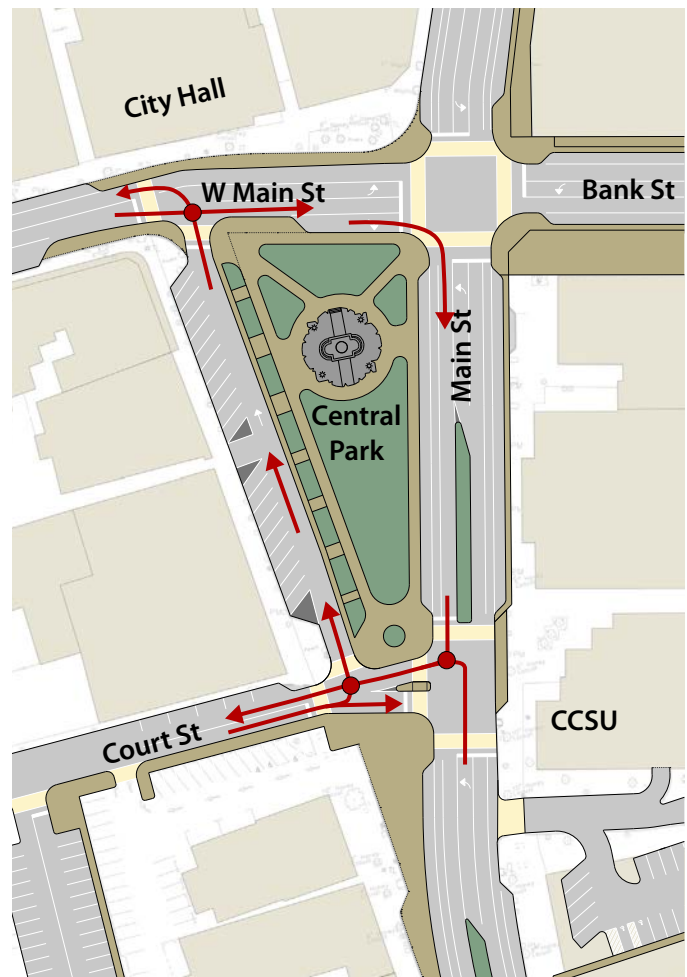
The CCSU driveway enters the intersection from the eastern side. The Main Street approaches are unusually wide to include the CCSU driveway, the Court Street leg and also to allow for the left turn into the bank parking lot. This configuration can cause left turning and through lane alignment problems and inefficiencies. Court Street enters the intersection at an acute angle, where left turns to northbound Main Street are not permitted due to the severe angle.

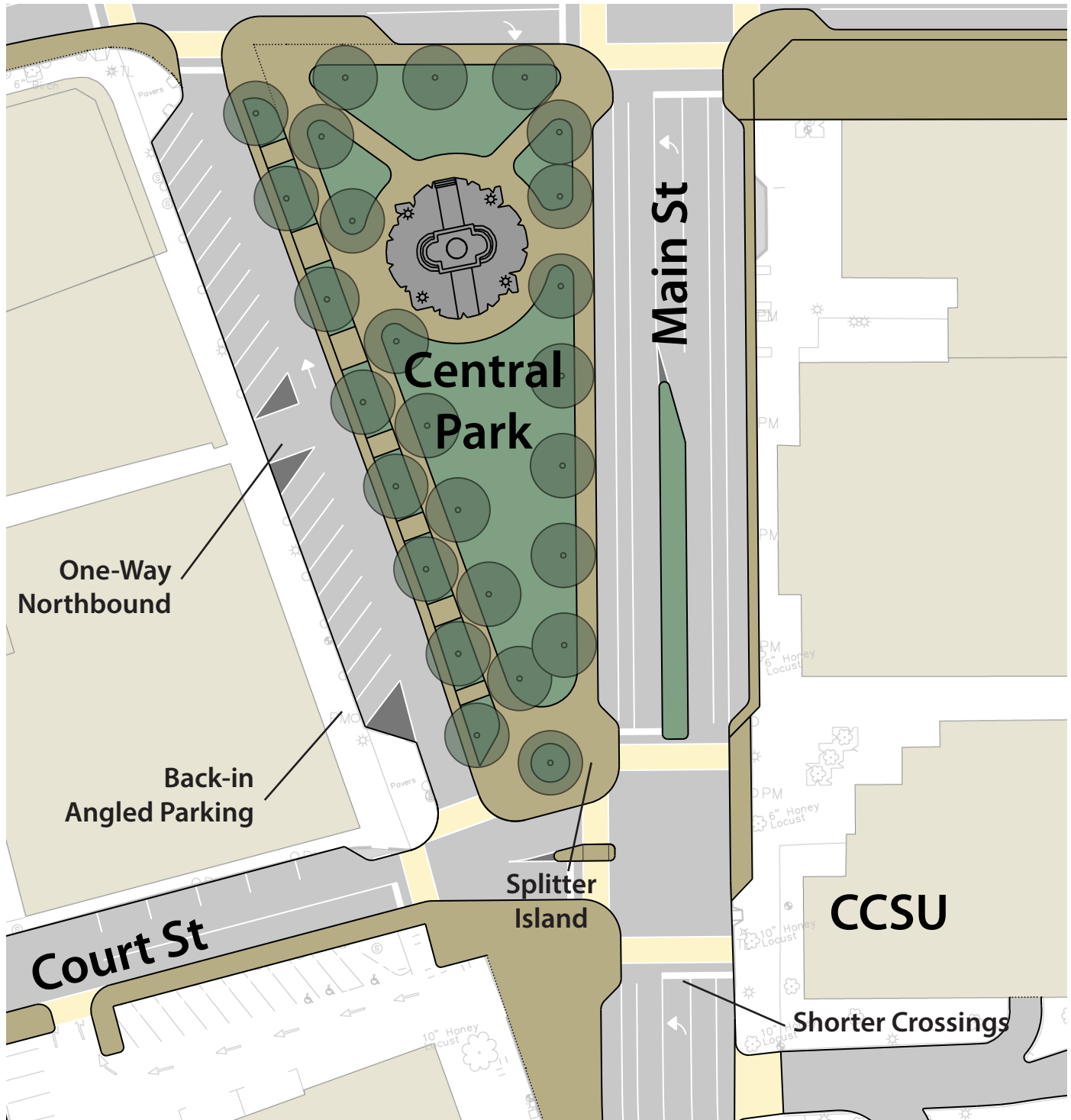
Several islands south of the park do not function well or contribute to the pedestrian realm, creating a sea of asphalt at Court Street.

Existing Court Street Circulation



Revised Court Street Circulation

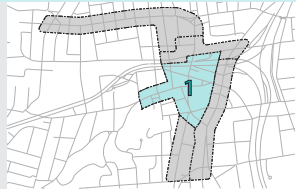




Two options were examined – one which maintains the existing north-south circulation at Central Park, and one which reverses circulation, from south to north. In the south to north option, left and above, vehicles would make a right southbound on Main to enter the parking lot, and would exit making a right on West Main. As part of the new circulation pattern, Court Street would be converted to two-way from its current one-way direction. Back-in angled parking is proposed adjacent to the storefronts. Marked crosswalks and a new splitter island at Court and Main provide a better pedestrian crossing environment. As part of the road diet and reconfiguration of circulation, the park space is extended with new open space for a plaza area to the south.

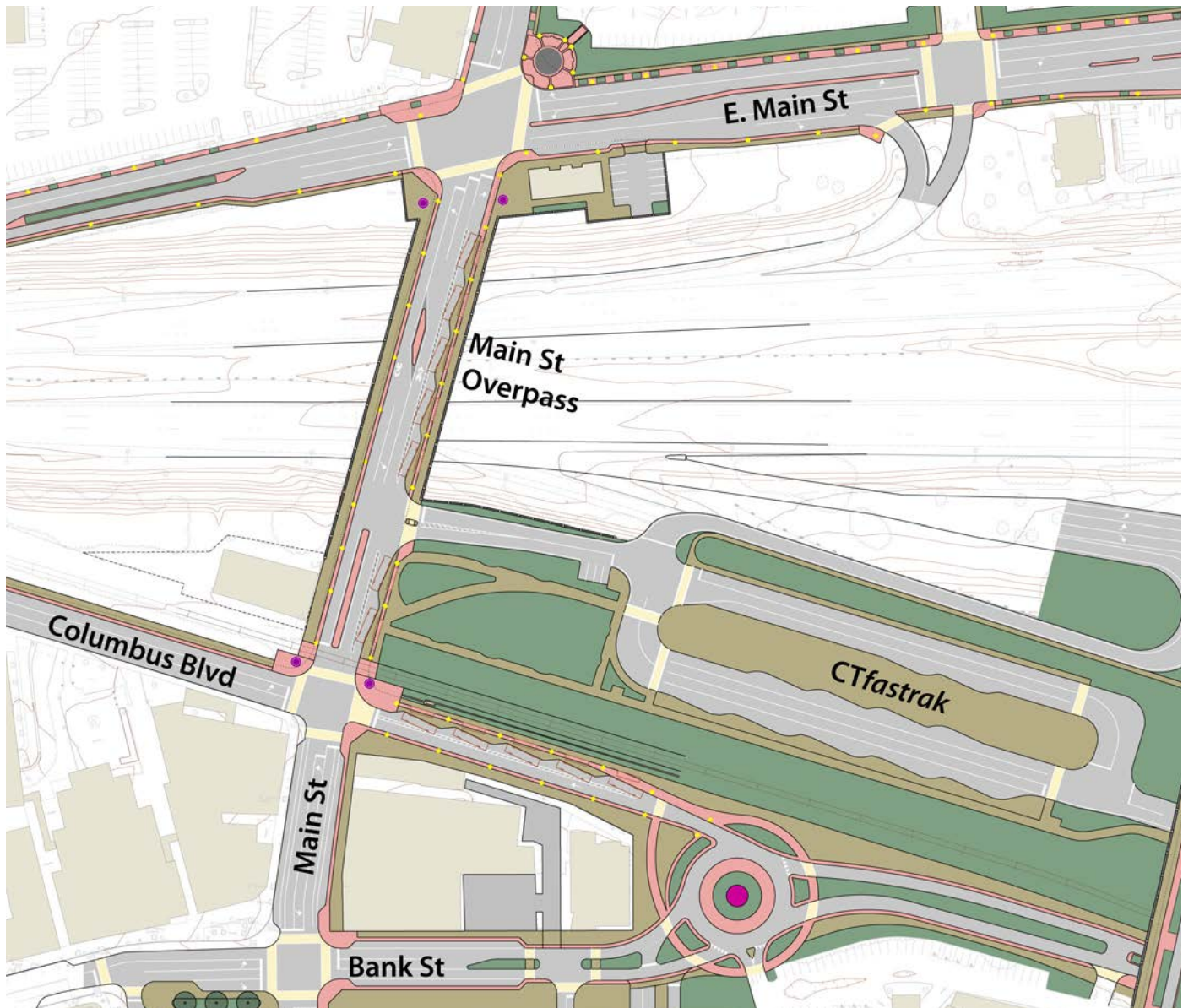
Study Area 1: City Hall, Central Park, CTfastrak & Downtown Core

Main Street at Central Station



Improving transit facilities and the pedestrian environment in the downtown is a priority. The most pressing problem in the downtown is the split created by Route 72. New Britain has twelve bus routes that traverse New Britain, and form part of a larger, area-wide bus system that spans multiple towns and cities. Currently, many of these routes converge on Bank Street. Columbus Boulevard provides direct access adjacent to Main Street over Route 72. The Main Street overpass is a heavily traveled pedestrian route connecting neighborhoods to downtown and is currently a stark environment that is not welcoming to pedestrians, transit riders or bicyclists.

Transit improvements must be viewed in the larger context that includes Bank Street and Columbus Boulevard to the south, the Main Street corridor as it crosses Route 72, and East Main and Myrtle to the north. With *CTfastrak*, this area will see increased travel in many modes. Several concept options for this area are being developed and refined with ConnDOT and *CTfastrak*, and it is likely that a hybrid scheme will result.



Study Area 1: City Hall, Central Park, CTfastrak & Downtown Core

Main Street
at Central Station



Bank Street Central Station Option

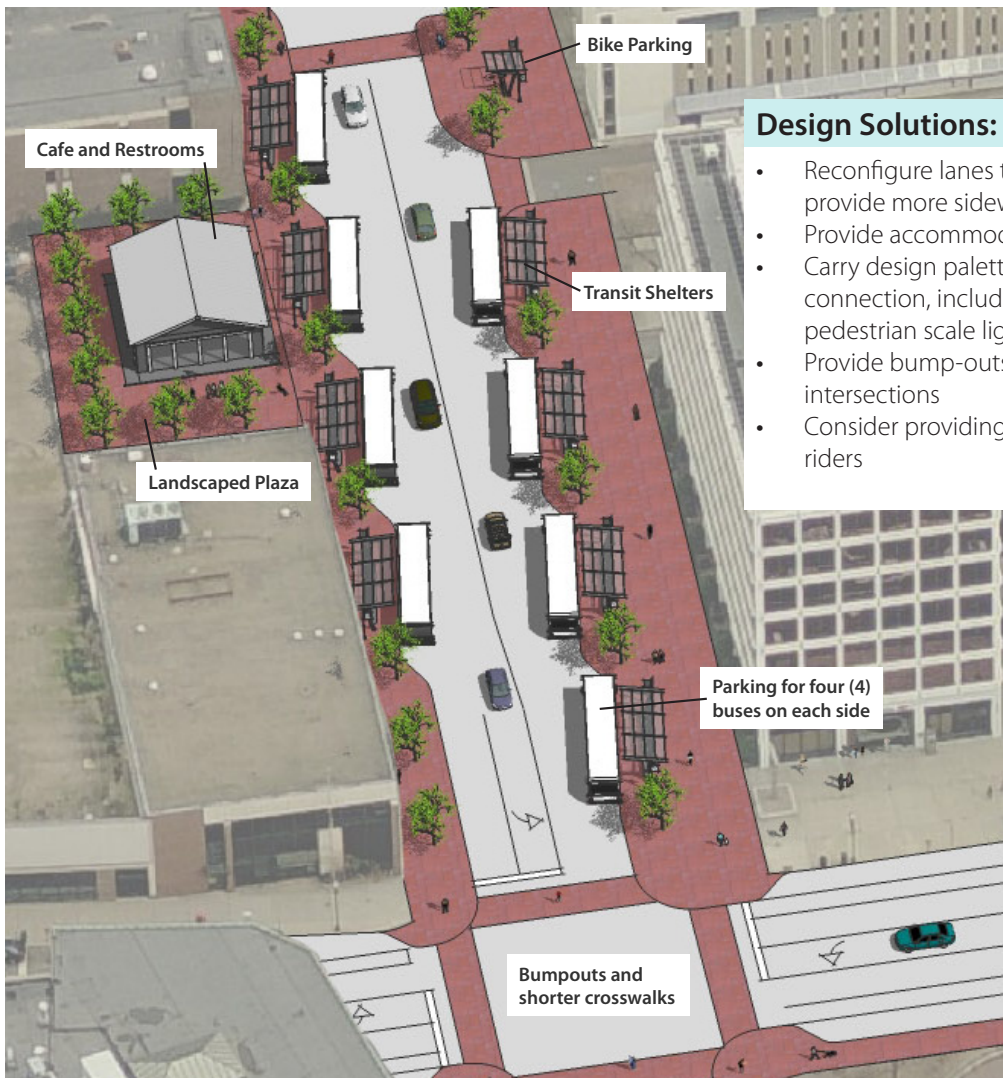
A road diet on Bank Street created an opportunity for an enhanced pedestrian and transit environment. The initial option creates a new Central Station at its existing location on Bank Street, with dedicated bus pull-offs, wider sidewalks on the north side of the street, and a landscaped plaza. While this design greatly improves existing conditions, this option was dismissed because other options developed provided better opportunities to connect directly to CTfastrak.

Existing Conditions:

- Wide street with narrow pedestrian sidewalks
- No pedestrian amenities
- Unattractive streetscape

Design Challenges:

- Short block to accommodate many routes



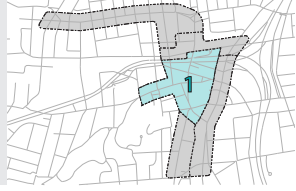
Design Solutions:

- Reconfigure lanes to accommodate bus pull offs and provide more sidewalk space
- Provide accommodations for transit riders
- Carry design palette through this important connection, including decorative sidewalk and pedestrian scale lighting
- Provide bump-outs to reduce crossing distances at intersections
- Consider providing a plaza and cafe as amenities for riders



Study Area 1: City Hall, Central Park, CTfastrak & Downtown Core

Main Street at Central Station



Columbus Boulevard Central Station Option

Columbus Boulevard is a major arterial that runs parallel to Route 72 and connects major north - south parts of New Britain's street network such as Washington Street, Main Street, and Harry Truman Overpass. At Main Street Columbus Boulevard runs along CTfastrak's south side.

Existing Conditions:

- Wide street with narrow sidewalks
- Few pedestrian amenities
- Unattractive streetscape

Design Challenges:

- Train tracks present impediment to a direct connection and an enhanced pedestrian environment
- Redirecting through traffic from Columbus Boulevard to Bank/ Main

Design Solutions:

- Reconfigure lanes to accommodate bus pull offs and provide more sidewalk space
- Create gateway with a roundabout that incorporates existing sculpture, creates more open space and provides an enhanced connection for cars and pedestrians between CTfastrak and the parking garage
- Provide additional on-street parking
- Carry design palette through this important connection, including decorative sidewalk and pedestrian scale lighting
- Provide bump-outs to reduce crossing distances at intersections



Columbus Boulevard at Main Street, Looking West



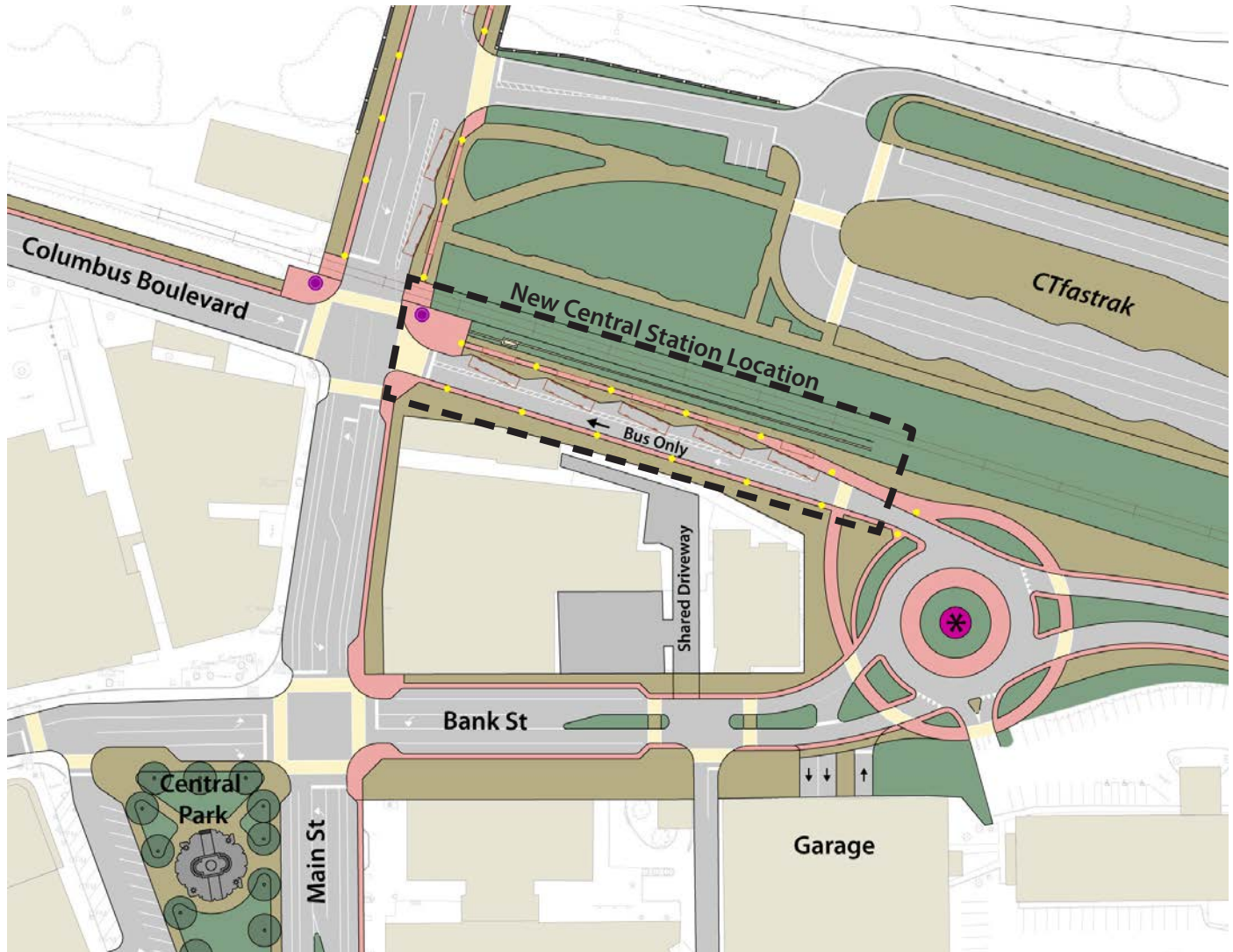
Columbus Boulevard at CTfastrak



Columbus Boulevard, Looking East



Study Area 1: City Hall, Central Park, CTfastrak & Downtown Core

Main Street
at Central Station

The Columbus Boulevard option has better space and locational advantages than the Bank Street Central Station option. This option creates a new Central Station directly adjacent to CTfastrak on Columbus Boulevard north of Bank Street, closing this block and making it one way, and for buses only. Through vehicular traffic would be routed on Bank Street to Main.

This option provides a more direct connection between local and CTfastrak buses, the parking garage and the downtown. A roundabout provides a new gateway into downtown, incorporates the existing sculpture (right) into a new open space, creates a direct linkage from CTfastrak to the garage and helps with turning movements.



Study Area 1: City Hall, Central Park, CTfastrak & Downtown Core

Main Street

to E Main via the Route 72 Overpass



Reconnecting Downtown: The Main Street Overpass/Central Station Option

In the 1970s Route 72 was built, bisecting downtown, disrupting the City's fabric and demolishing hundreds of buildings. The resulting Main Street overpass is a long pedestrian corridor which has no amenities feels unsafe.

Existing Conditions:

- Wide street with narrow pedestrian sidewalks
- Noisy, barren pedestrian environment

Design Challenges:

- Main Street as it crosses Route 72 should link both sides of downtown
- Good, direct connection needed between local and CTfastrak bus operations
- Creative solutions needed to make this an interesting pedestrian space

Design Solutions:

A third option, opposite page, was developed which uses the Main Street Overpass to accommodate local bus service. This option has the most direct connection to CTfastrak, and significant other advantages over other options:

1. It solves New Britain's most pressing problem - how to reconnect the downtown severed by Route 72. This option provides an opportunity for New Britain to create a signature structure and environment from what has long been a divisive part of the City's fabric
2. Reconnects the downtown with an interesting, pedestrian and transit-friendly environment at CTfastrak's "front door"
3. Creates several opportunities for transit-oriented development



Narrow Sidewalks on Main Street Overpass

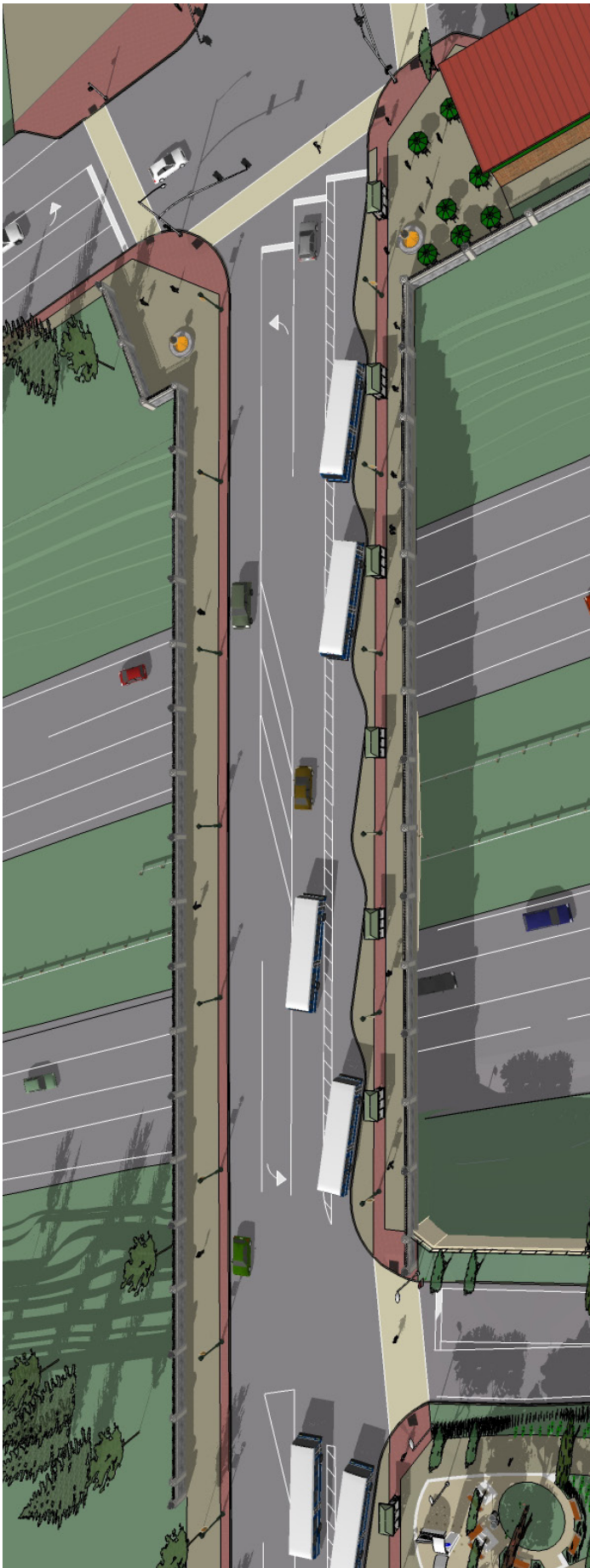


Freight Rail Crossing

Design Solutions include:

- Reconfigure lanes to accommodate bus pull offs and provide more sidewalk space
- Carry design palette through this important connection, including decorative sidewalk, pedestrian scale lighting and kinetic sculpture or public art
- Explore wall treatments that can serve as both noise and visual screening and public art
- Provide bump-outs to reduce crossing distances at intersections
- Consider elements to "green" or soften the environment

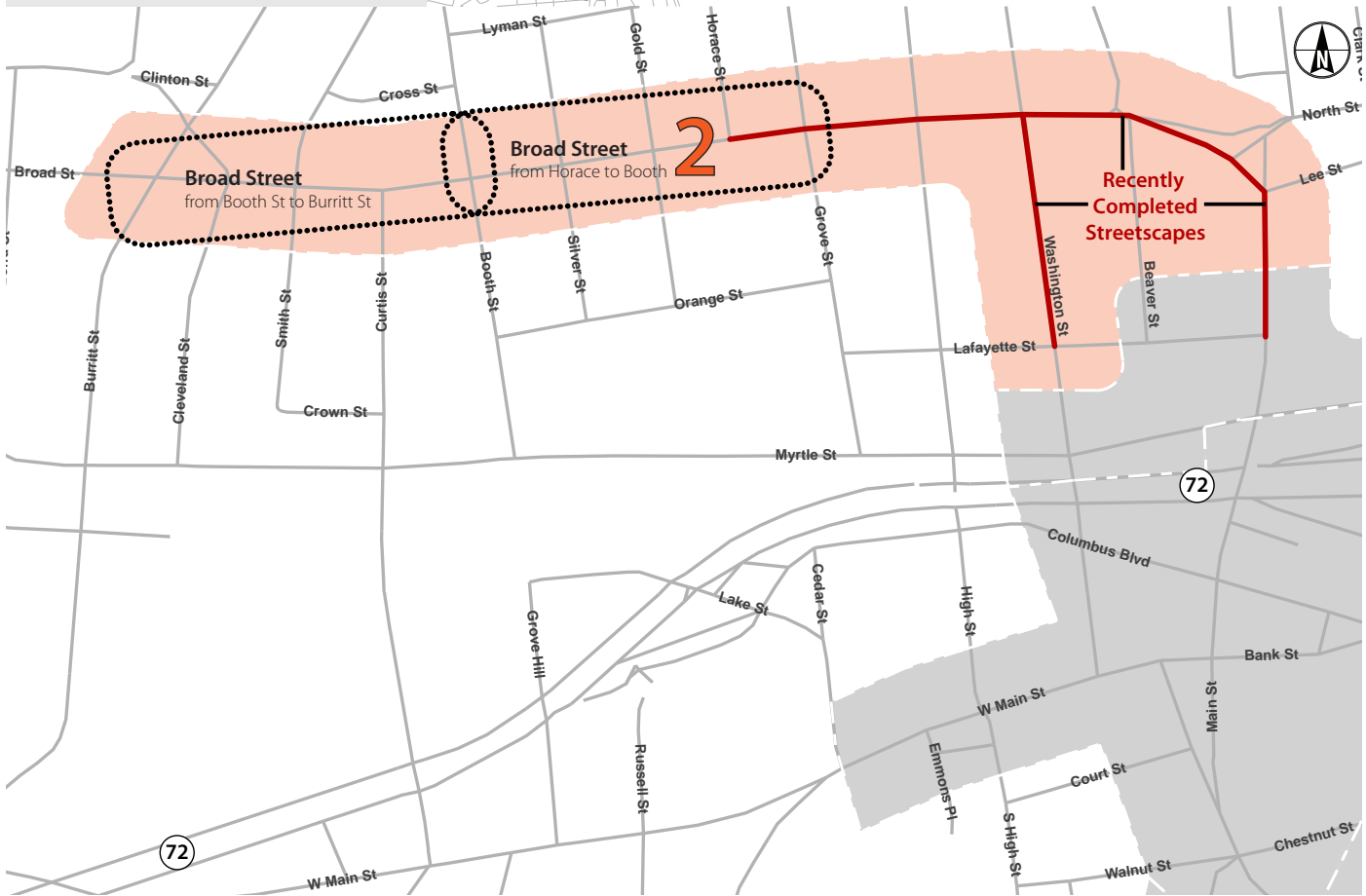




Study Area 2: Broad Street & Little Poland

Broad Street

from East Main to Burritt Streets



Study Area 2 focuses on Main Street north of State Highway 72, and Broad Street, known locally as Little Poland. This area is currently the most successful mixed-use commercial corridor in the downtown, and home to Capitol Lunch, and many successful Polish delis, bakeries, and eating establishments along Broad Street.

The City recently completed a \$5M construction project through-out much of this area in 2012. Road widths are generally properly sized in this study area, and it already provides a walkable environment. While the design was completed before the overall palette and standards were developed in this master plan, elements could be added to achieve continuity with other area in the downtown. Additional pedestrian crosswalks, a gateway feature, planters, street furniture and other elements that could be added to improve the pedestrian experience should be pursued.



Recent Streetscape Construction



Restaurants and shopping along Broad Street in Little Poland



Capitol Lunch on Main Street north of East Main



Main Street approaching Broad Street



2: Broad Street & Little Poland

Broad Street

from Horace to Booth

Existing Conditions:

Broad Street from Horace to Booth has a pedestrian-friendly scale. Recent streetscape improvements have provided a clean, neat framework leading up to Horace Street, but overhead utilities pose a challenge. While recently completed construction limits the ability to make major changes, the addition of pedestrian amenities - from street furniture to capital improvements, such as bump-outs - should be the focus of future improvements.

Design Challenges:

- 40' curb-to-curb street (two 12' travel lanes with 8' parking lanes)
- Driveways interrupt the streetscape
- Lack of street trees. Overhead utilities are a major challenge in the remaining sections to be completed

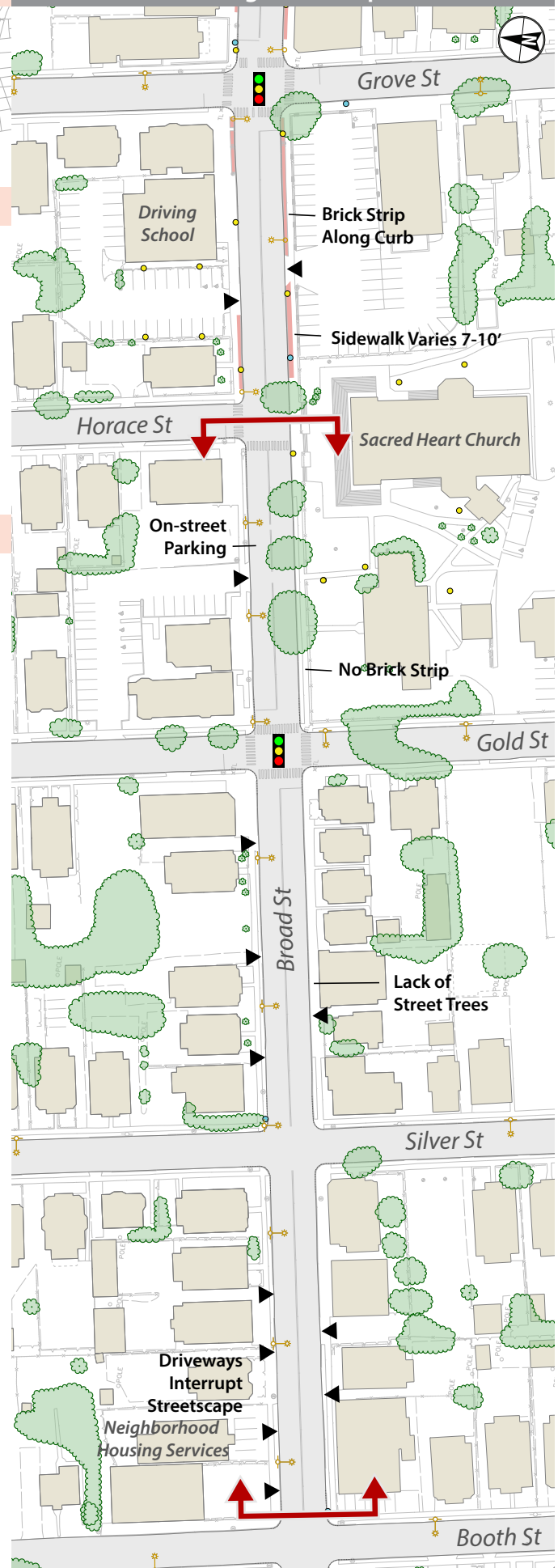


Recent Improvements on Broad near Grove



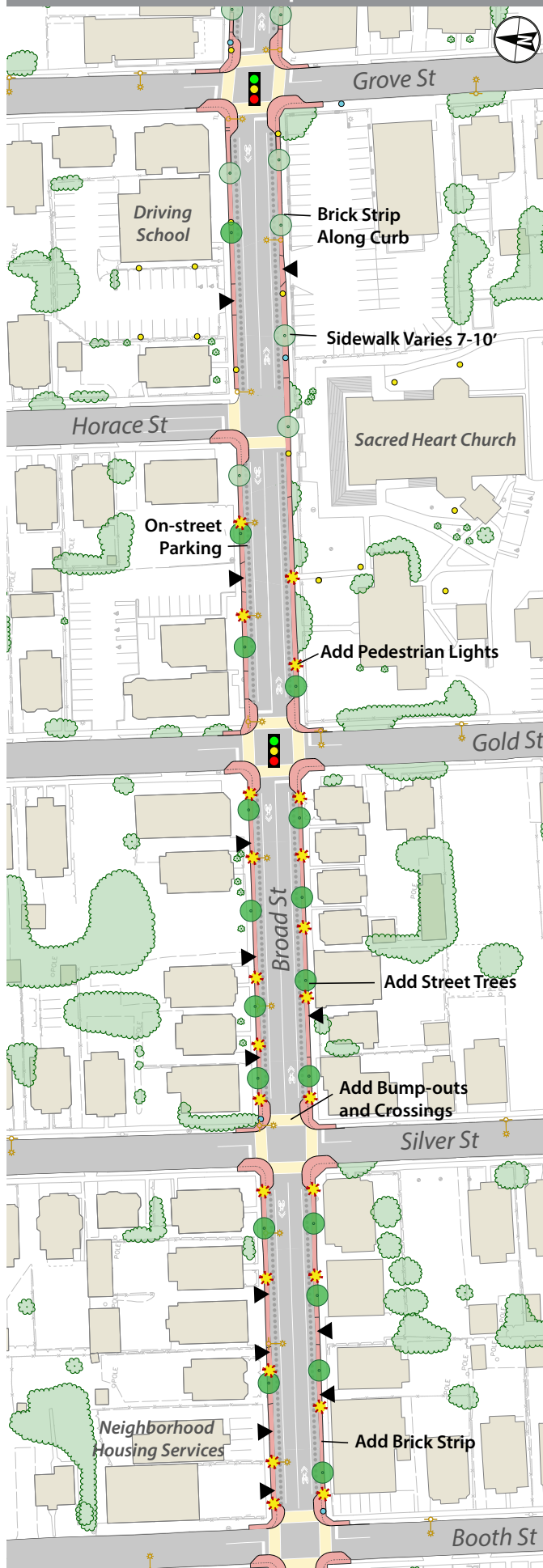
Overhead Utilities on Broad

Existing Streetscape



Chapter 5: Study Area Design Concepts

Streetscape Plan



Existing Elements / Plan Elements

	Pedestrian Lighting		New Ped Lighting
	Driveways		Closed Driveways
	Trees		New Trees
	Parking Meters		Brick Strip
	Hydrants		Bike Lanes
	Roadway Lighting		Parking/Loading
	Trash		Wayfinding Signs
	Section Match Line		Sculpture

Design Solutions:

- Create a gateway into Little Poland which reflects its unique identity with public art, sculpture, and specialty signage
- Continue Broad Street streetscape palette, including stamped concrete brick treatment
- Add bump-outs and crosswalks to shorten pedestrian crossing distances at intersections
- Add new street trees and planters
- Provide additional ornamental pedestrian lighting



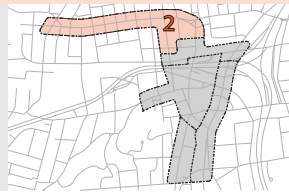
Public art Ideas to Enhance Little Poland's streetscape



2: Broad Street & Little Poland

Broad Street

from Booth St to Burritt St



Existing Conditions:

Like the previous section, Broad Street here does not have a pedestrian-friendly scale for its entire length. Near Burritt, Broad Street becomes very wide, and wider still at Pulaski Park, which has a confusing traffic pattern and a sea of pavement. Recently completed improvements limit the ability to make major changes, and overhead utilities pose a challenge. The addition of pedestrian amenities - from street furniture to capital improvements, such as bump-outs - should be the focus of future improvements here as well.

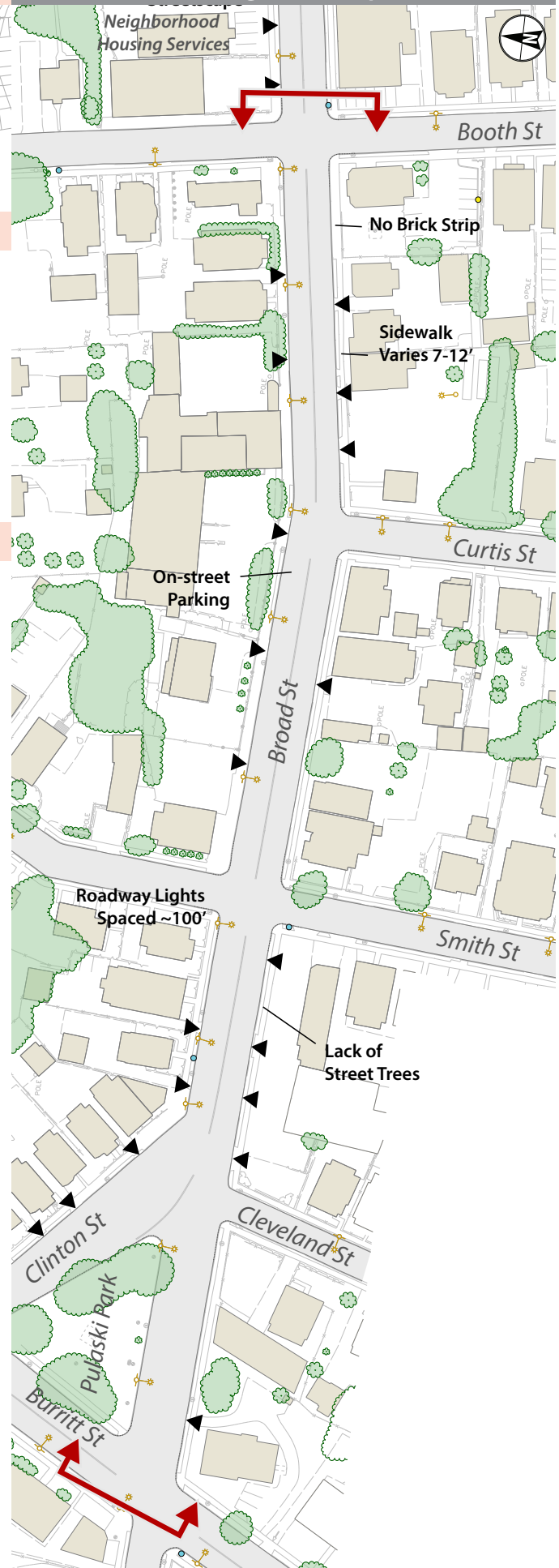
Design Challenges:

- Varying roadway width conditions - 40' curb-to-curb street (two 12' travel lanes with 8' parking lanes); 46' curb-to-curb, west of Curtis Street
- Confusing traffic circulation with a sea of pavement at Pulaski Park
- Massive amount of overhead utilities and large numbers of service laterals
- Driveways interrupt the streetscape
- Sidewalk has no brick strip treatment
- Lack of street trees
- Roadway lighting spaced at approximately 100' intervals

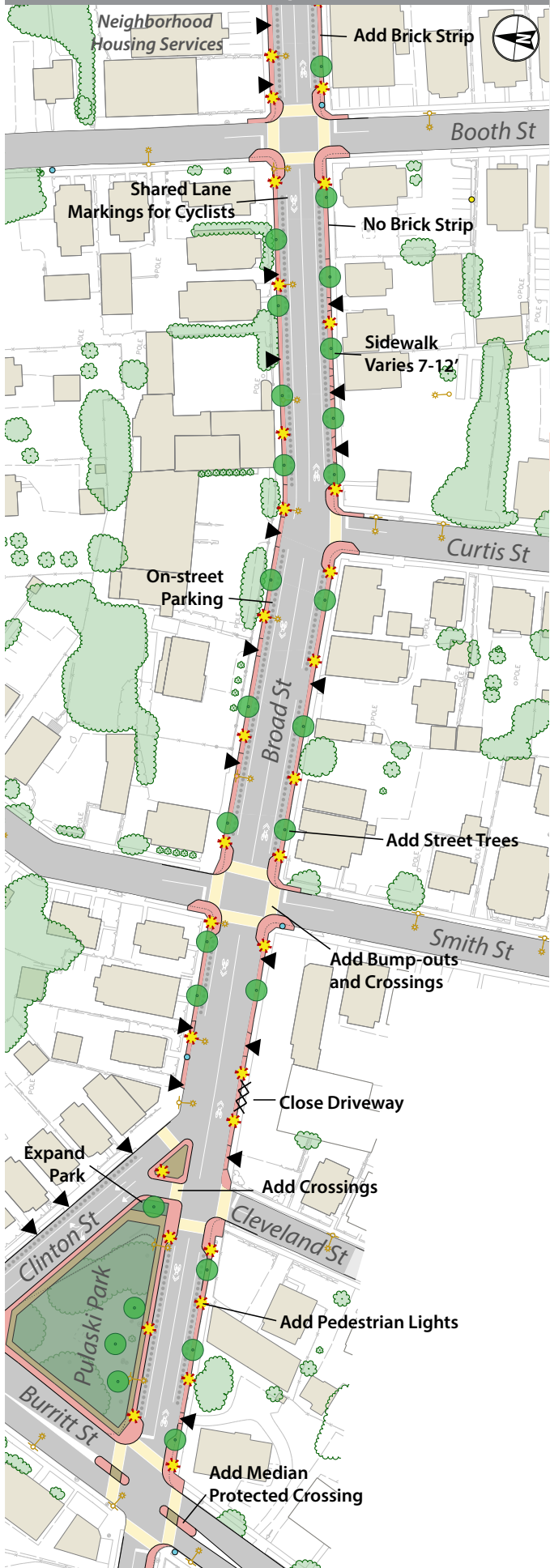


Overhead Utilities on Broad at Booth

Existing Streetscape



Streetscape Plan



Existing Elements

- Pedestrian Lighting
- Driveways
- Trees
- Parking Meters
- Hydrants
- Roadway Lighting
- Trash
- Section Match Line

Plan Elements

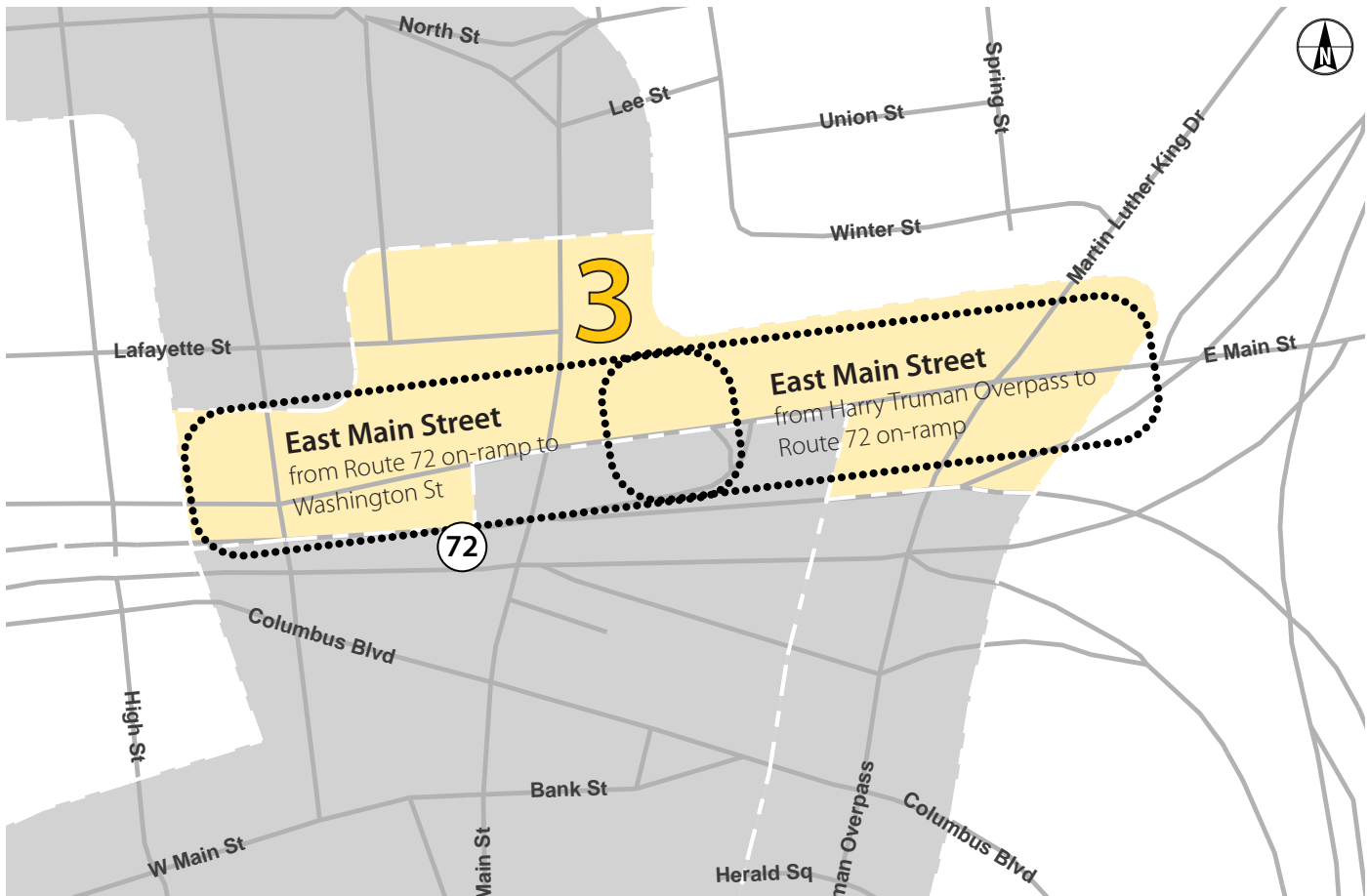
- New Ped Lighting
- Closed Driveways
- New Trees
- Brick Strip
- Bike Lanes
- Parking/Loading
- Wayfinding Signs
- Sculpture

Design Solutions:

- Continue stamped concrete brick treatment
- Bump-outs and crosswalks to shorten pedestrian crossing distances at intersections
- New street trees and planters
- Additional ornamental pedestrian lighting
- Look for public art opportunities
- Expand Pulaski Park to also serve as a terminus gateway and improve confusing traffic circulation
- Provide a consistent 40' road diet on the section of Broad near Burritt Street and by Pulaski Park
- Either place utilities completely underground, or partially underground (such as service laterals)



Study Area 3: Main Street Shopping District



Study Area 3 primarily focuses on East Main Street (S.R. 174) along its frontage to New Brite Plaza, the largest retail shopping area in the downtown. This plaza provides an important complement to the smaller businesses through-out the downtown in terms of making the downtown a highly livable environment. East Main Street is a high traffic arterial roadway that provides east-west access in the eastern portion of the city, and provides a direct to Route 9, which is a limited access State Highway. In terms of Complete Streets improvements, aesthetic streetscape improvements are needed along East Main Street because this road serves as an important gateway into the downtown.



New Brite Shopping Plaza



East Main Street, looking East



Route 72 On-ramp



East Main Street and Main Street Intersection



East Main Street, looking West



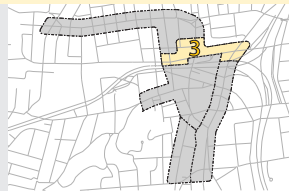
New Brite Shopping Plaza



3: Main Street Shopping District

East Main Street

from Harry Truman Overpass to the
Route 72 on-ramp



Existing Conditions:

While East Main Street is an important connection to the regional network, it also serves as a gateway into New Britain. East Main Street's speed limit, street width, block length, building setbacks, and size of intersections are challenging for pedestrians. Recent improvements to New Brite Plaza and the presence of CTfastrak will provide increased pedestrian activity in this area.

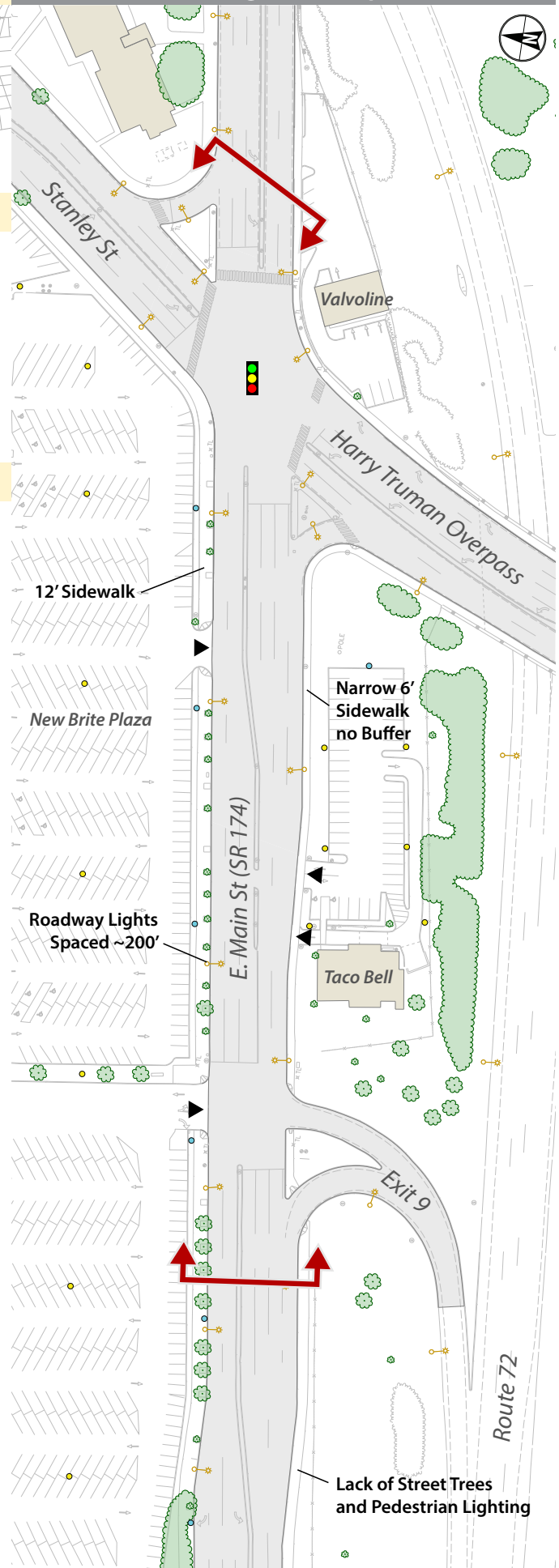
Design Challenges:

- 65' curb-to-curb street (two 13' travel lanes in each direction with turning lanes)
- Long block (approximately 1200') is difficult for pedestrians
- Narrow 6' sidewalks on the south side, and wider 12' sidewalks along New Brite Plaza
- Lack of street trees, and the trees which exist are unhealthy
- Lack of pedestrian scale lighting. Roadway lighting is spaced at approximately 200' intervals
- Crosswalks are provided at intersections, but crossing distances are long
- No accommodation for bus riders (B/Ea Routes)
- Unattractive center median with weeds



East Main Street, Looking East

Existing Streetscape



Streetscape Plan



Existing Elements

Plan Elements

	Pedestrian Lighting		New Ped Lighting
	Driveways		Closed Driveways
	Trees		New Trees
	Parking Meters		Brick Strip
	Hydrants		Bike Lanes
	Roadway Lighting		Parking/Loading
	Trash		Wayfinding Signs
	Section Match Line		Sculpture

Design Solutions:

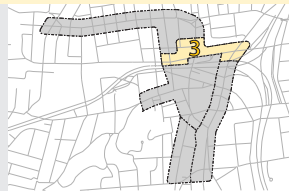
- Bump-outs at appropriate intersections
- Sidewalk widened on New Brite Plaza side to enhance pedestrian environment
- New 4' brick strip sidewalk treatment along the curb edge on the south side, wider 7.5' brick strip along New Brite Plaza
- New street trees
- Additional pedestrian lighting spaced at approximately 75' intervals
- Improved decorative median
- Use public art and sculpture to create variety and interest for pedestrians and establish a gateway feel into the downtown area
- Benches for bus riders



3: Main Street Shopping District

East Main Street

from Route 72 on-ramp to
Washington St



Existing Conditions:

Like the previous section, East Main Street/Myrtle Street has proportions and treatment not conducive to pedestrians. While East Main/Myrtle serves an important regional function, recent improvements to New Brite Plaza and the presence of CTfastrak will provide increased pedestrian activity in this area.

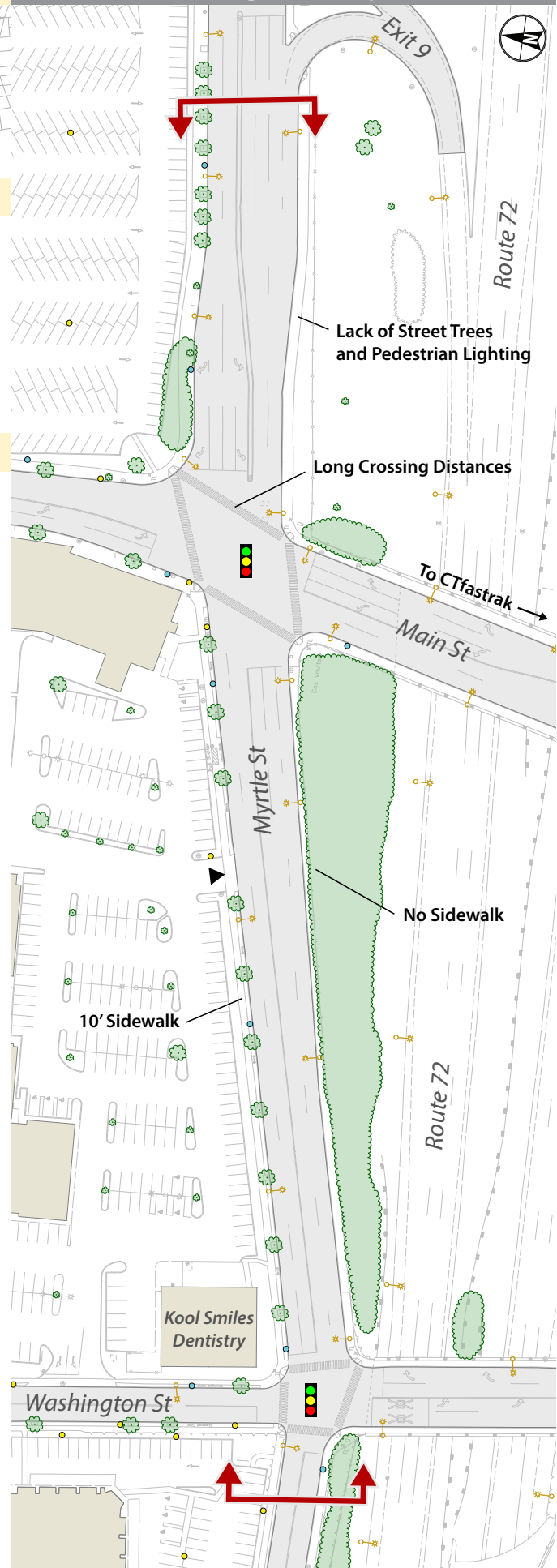
Design Challenges:

- 60' curb-to-curb street (two 12' travel lanes in each direction with turning lanes)
- Long block between Main Street and Washington Street (approximately 720') is difficult for pedestrians
- Inconsistent sidewalks - no sidewalks on the south side; 10' sidewalks along north side
- Lack of street trees, and the trees which exist are unhealthy
- Lack of pedestrian scale lighting. Roadway lighting spaced at approximately 200' intervals
- Crosswalks provided at intersections, but crossing distances are long

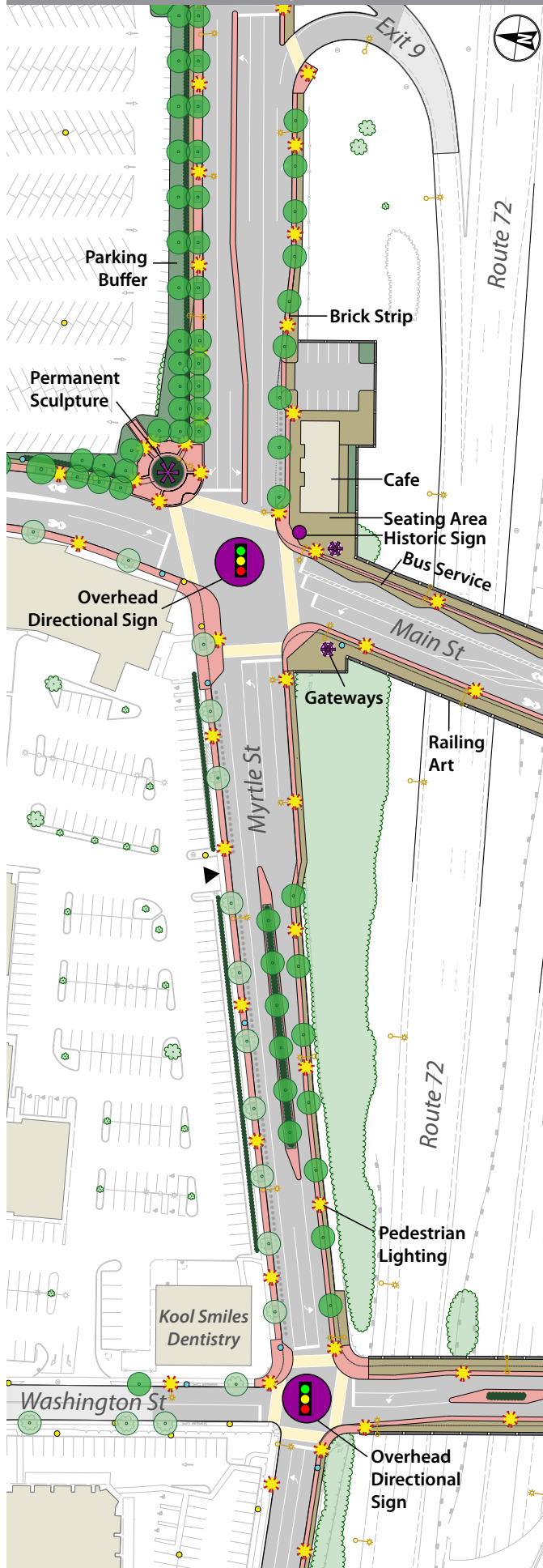


Myrtle / Main Intersection

Existing Streetscape



Streetscape Plan



Existing Elements

- Pedestrian Lighting
- Driveways
- Trees
- Parking Meters
- Hydrants
- Roadway Lighting
- Trash
- Section Match Line

Plan Elements

- New Ped Lighting
- Closed Driveways
- New Trees
- Brick Strip
- Bike Lanes
- Parking/Loading
- Wayfinding Signs
- Sculpture

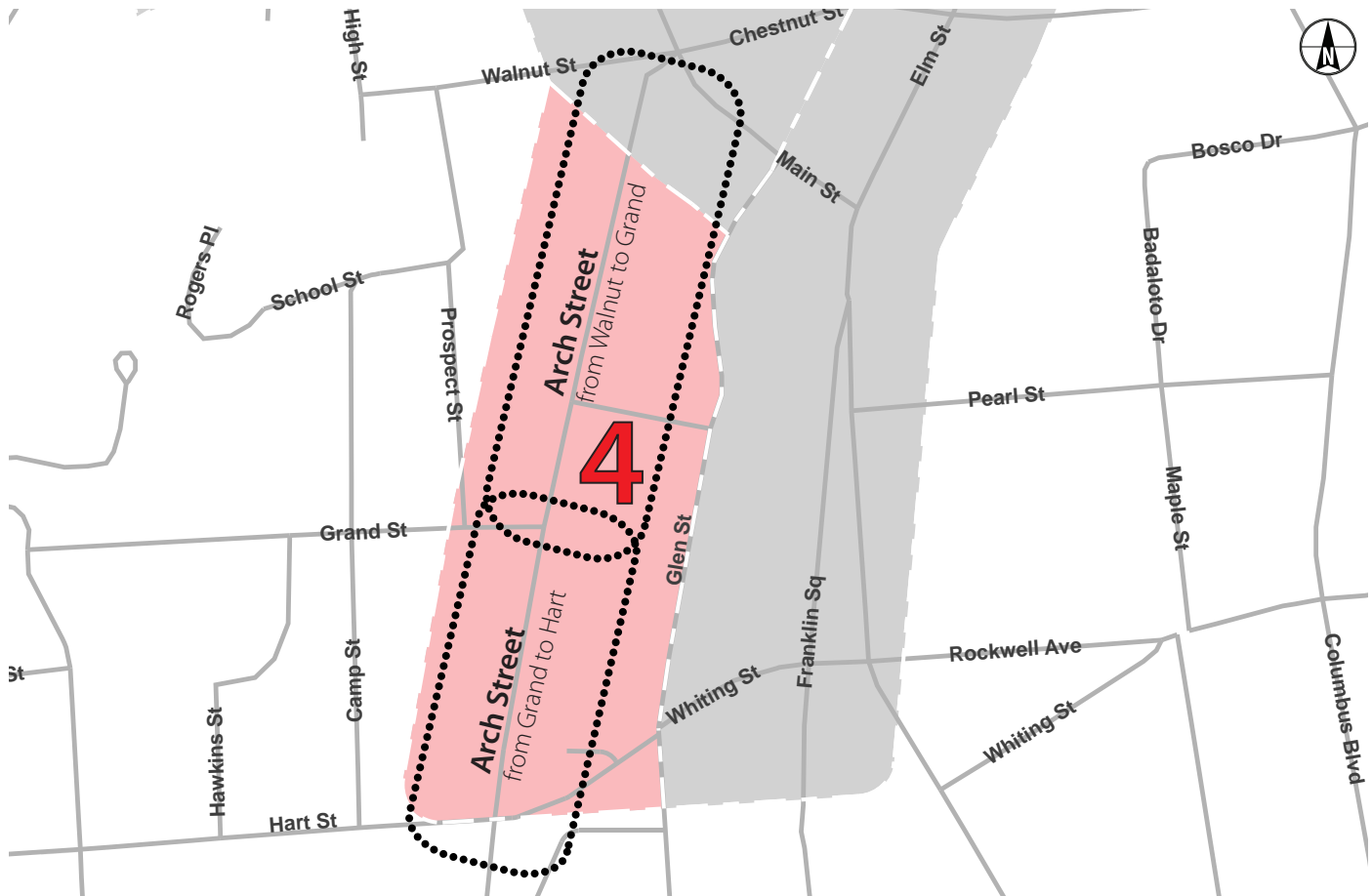
Design Solutions:

- 43' curb-to-curb street (one lane in each direction west of Main Street)
- New development opportunity for a cafe on the southeast corner of Main & E. Main
- Bump-outs at appropriate intersections
- Landscaped center median
- New 4' brick strip sidewalk treatment along the curb edge on the south side, 5' along north side
- Additional pedestrian lighting spaced at approximately 120' intervals
- Use public art and sculpture to create variety and interest for pedestrians



Development Opportunity near CTfastrak

Study Area 4: Arch Street Latino District & Linkage to Hospital of Central CT



Study Area 4 primarily focuses on the Arch Street corridor, which connects downtown to the Hospital of Central Connecticut. Arch Street is moving towards becoming the Latino cultural center of New Britain. The Arch Street streetscape was redone in the mid-1990s through a significant investment that included road reconstruction and streetscape improvements. Even so the roadway and streetscape palette looks tired, and is in need of a facelift. This could be achieved with a fairly modest investment through adding more street trees, planters, and items such as bump-outs.

Chapter 5: Study Area Design Concepts



Entrance to Arch Street at Main Street



Retail on Arch Street



Existing Streetscape Palette



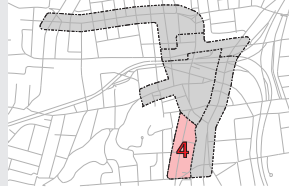
Historic Mid-Rise Architecture



4: Arch Street Latino District & Linkage to Hospital of Central CT

Arch Street

from Walnut to Grand



Existing Conditions:

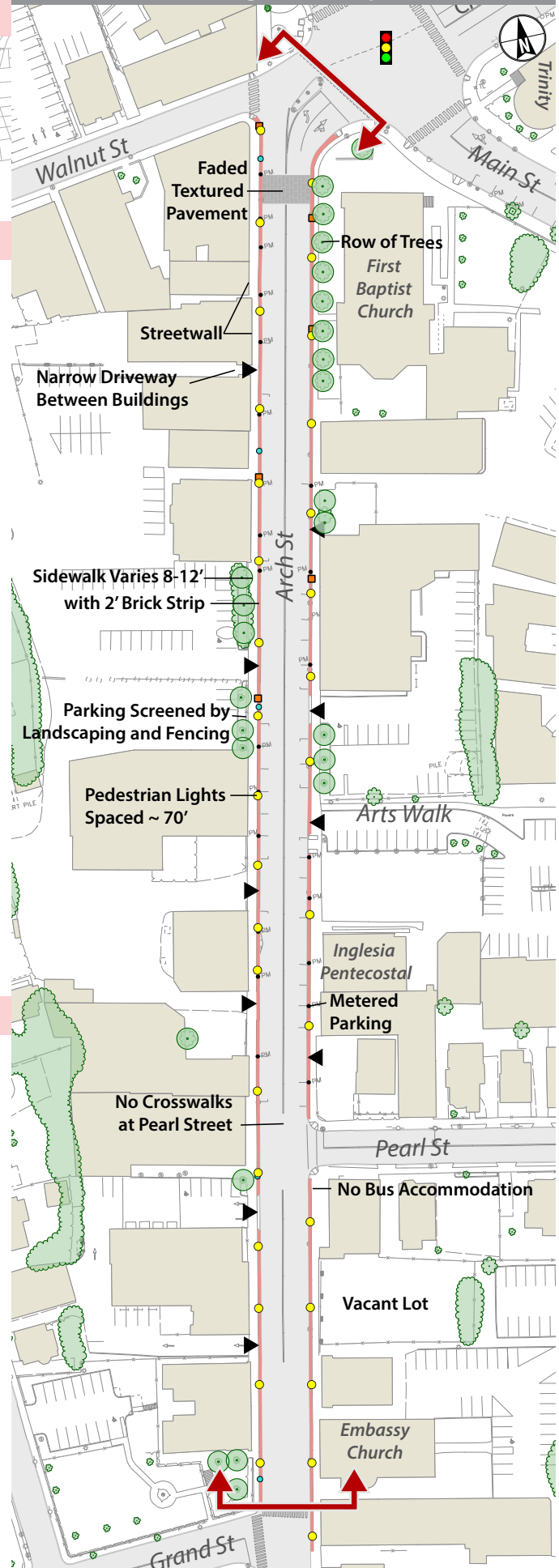
Arch Street provides an important link between the downtown and destinations such as the Hospital of Central Connecticut. While the scale of the street and intact streetwall form the basis for a pleasant pedestrian environment, details such as crosswalks, pedestrian scale lighting and street trees are not consistently provided. Some streetscape elements, such as paving details, are dated and not consistent with the Master Plan.



Design Challenges:

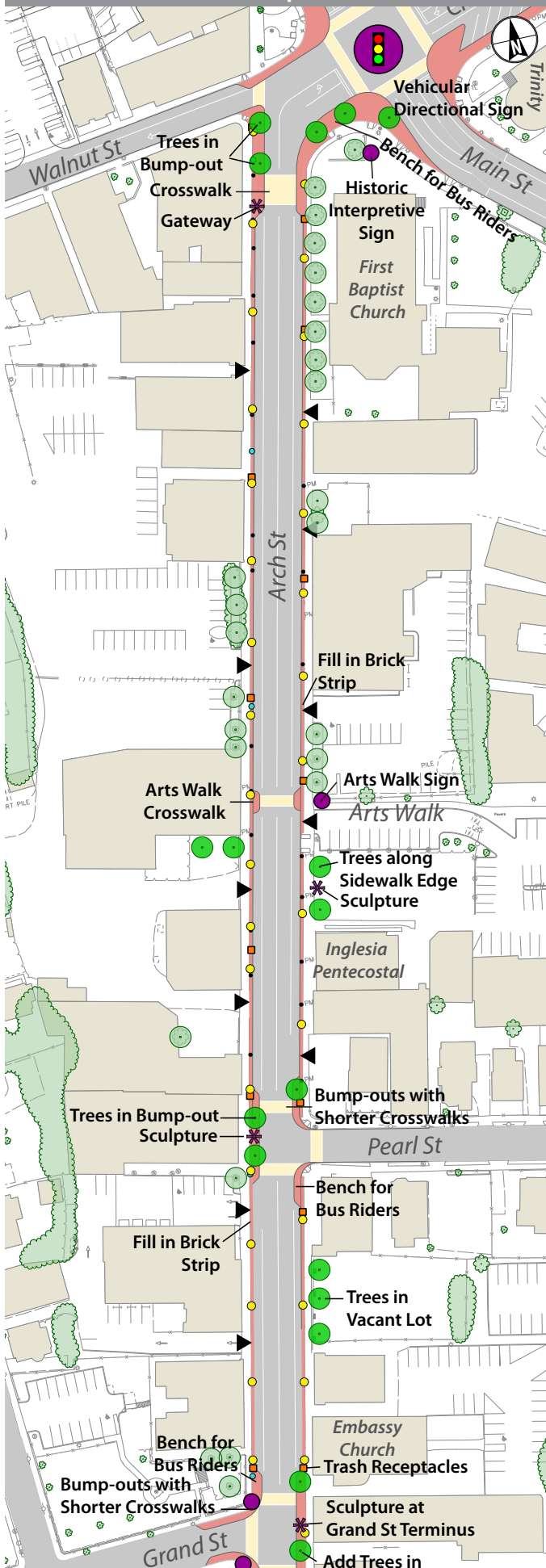
- 42' curb-to-curb street (two 13' travel lanes with 8' metered parking lanes)
- Long block (approximately 1250') without a pedestrian crossing opportunity
- Sidewalk width varies (8'-12')
- Sidewalk treatment has 2' brick strip along the curb edge with a few gaps at driveways
- Lack of street trees
- Pedestrian lighting spaced at approximately 70' intervals
- No pedestrian crosswalks at Pearl Street
- No accommodation for bus riders (AR/Arch Street Route)

Existing Streetscape



Chapter 5: Study Area Design Concepts

Streetscape Plan



Existing Elements

Plan Elements

	Pedestrian Lighting		New Ped Lighting
	Driveways		Closed Driveways
	Trees		New Trees
	Parking Meters		Brick Strip
	Hydrants		Bike Lanes
	Roadway Lighting		Parking/Loading
	Trash		Wayfinding Signs
	Section Match Line		Sculpture

Design Solutions:

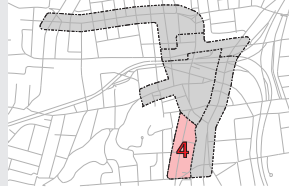
- Create a gateway feature at the Walnut/Main intersection to announce the Latino District
- Provide public art or sculpture at key locations to continue the Arts Walk
- Consider replacing existing street and sidewalk pavers with brick to be consistent with the downtown streetscape palette
- Bump-outs to enlarge pedestrian space and shorten crossing distances
- Pedestrian crosswalks at Arts Walk, Pearl Street, and Grand Street
- Close two driveways
- New street trees at regular intervals, and at other appropriate locations, including bump-out areas
- Create continuous brick strip on sidewalk by filling in gaps
- Add pedestrian amenities, including trash receptacles and benches for AR/Arch Street bus riders
- Interpretive and directional signage from Wayfinding Plan



4: Arch Street Latino District & Linkage to Hospital of Central CT

Arch Street

from Grand to Hart



Existing Conditions:

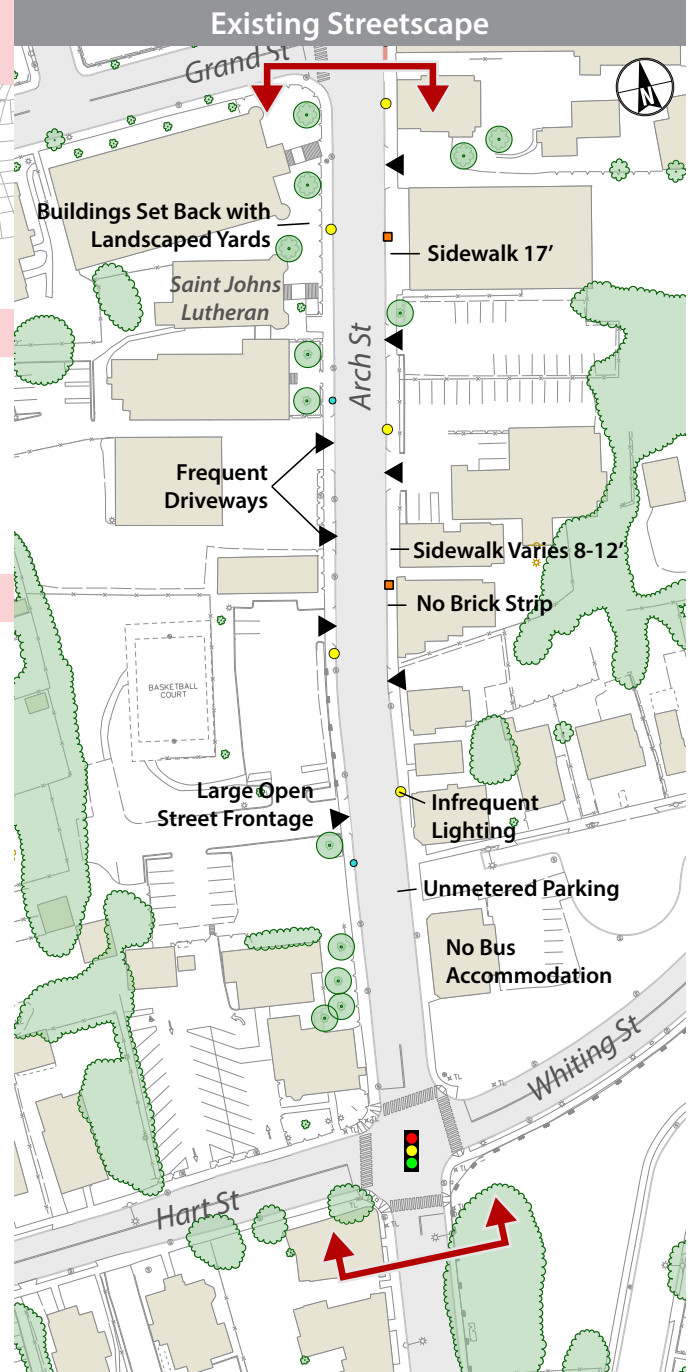
Arch Street between Grand and Hart has a more open feel due to several vacant properties and few street trees. The pedestrian environment is challenged by numerous driveways and a lack of pedestrian elements.

Design Challenges:

- 36' curb-to-curb street (two 11' travel lanes with 7' non-metered parking lanes)
- Approximately 800' block with no pedestrian crossing opportunity
- Sidewalk width varies (8'-17')
- Sidewalk has dated look and is in poor condition in some locations
- Few street trees
- Infrequent pedestrian scale lighting (only 5 poles)
- No accommodations for bus riders



Grand Street

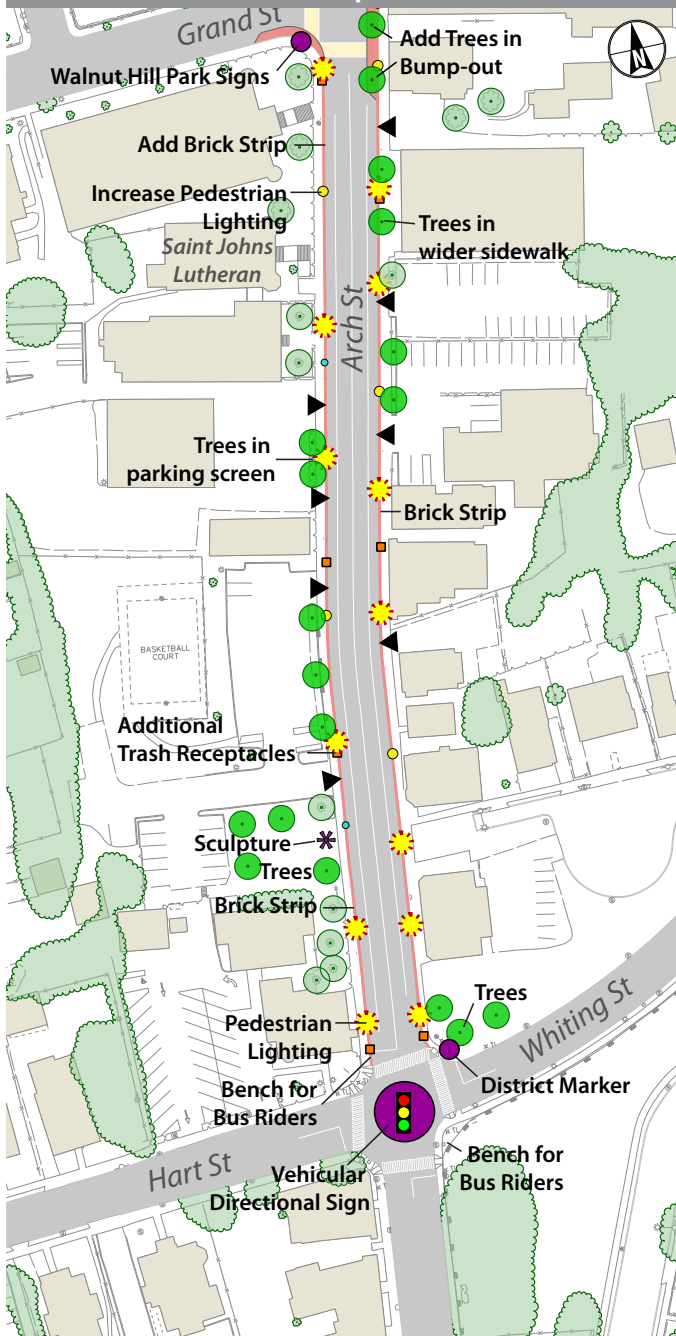


Arch Street approaching Hart



Chapter 5: Study Area Design Concepts

Streetscape Plan



Existing Elements

- Pedestrian Lighting
- Driveways
- Trees
- Parking Meters
- Hydrants
- Roadway Lighting
- Trash
- Section Match Line

Plan Elements

- New Ped Lighting
- Closed Driveways
- New Trees
- Brick Strip
- Bike Lanes
- Parking/Loading
- Wayfinding Signs
- Sculpture

Design Solutions:

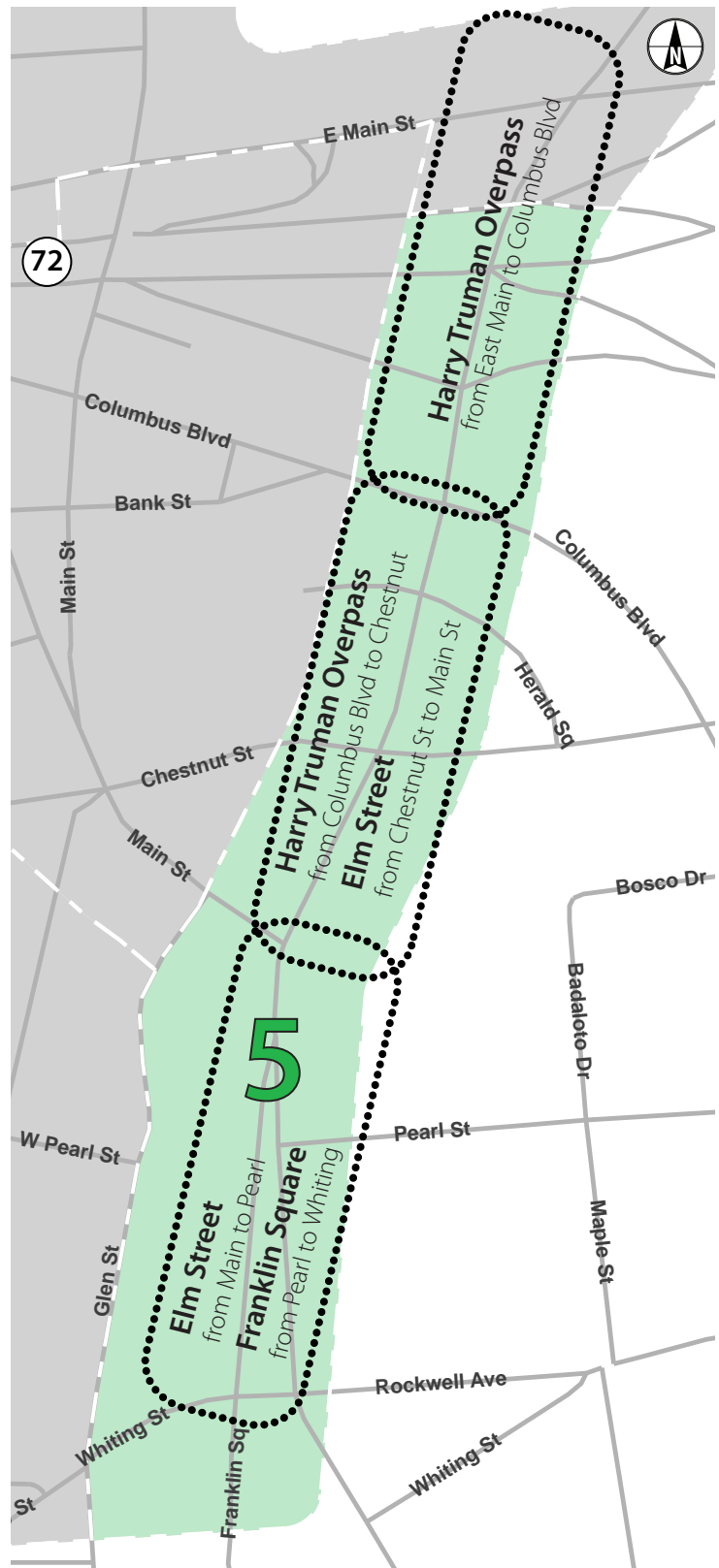
- Consider replacing existing street and sidewalk pavers with brick to be consistent with the downtown streetscape palette
- Bump-outs to enlarge pedestrian space and shorten crossings
- Pedestrian crosswalk at Grand Street
- New street trees where space permits, including bump-out areas
- New pedestrian lighting, spaced at approximately 70' interval
- Benches for bus riders
- Interpretive and directional signage from Wayfinding Plan
- Additional pedestrian scale lighting at regular intervals



Study Area 5: South Main Street Gateway

Study Area 5 includes South Main Street, Elm Street and the Harry Truman Overpass, all of which are on State Route 71. New Britain's Courthouse, the CT DEEP Office for Public Utilities and Franklin Square Green, which was refurbished as part of the City's Arch Walk Way project, are contained within this study area.

South Main Street serves as an important gateway to the downtown from the south, and as such the downtown would greatly benefit from aesthetic streetscape improvements along this section of the road. Similar to Study Areas 1 through 4, the improvements proposed for Study Area 5 would be transformative to the livability and walkability of the downtown, but overall improvements proposed in this study area are more long-term in nature than the other areas.





Narrow Sidewalks on Harry Truman Overpass



Courthouse on Elm Street



Narrow Sidewalks on Harry Truman Overpass



Franklin Square



Existing Landscape



Churches on Franklin Square

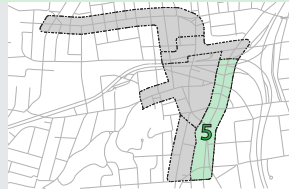


5: South Main Street Gateway

Existing Streetscape

Harry Truman Overpass

from East Main to Columbus Blvd

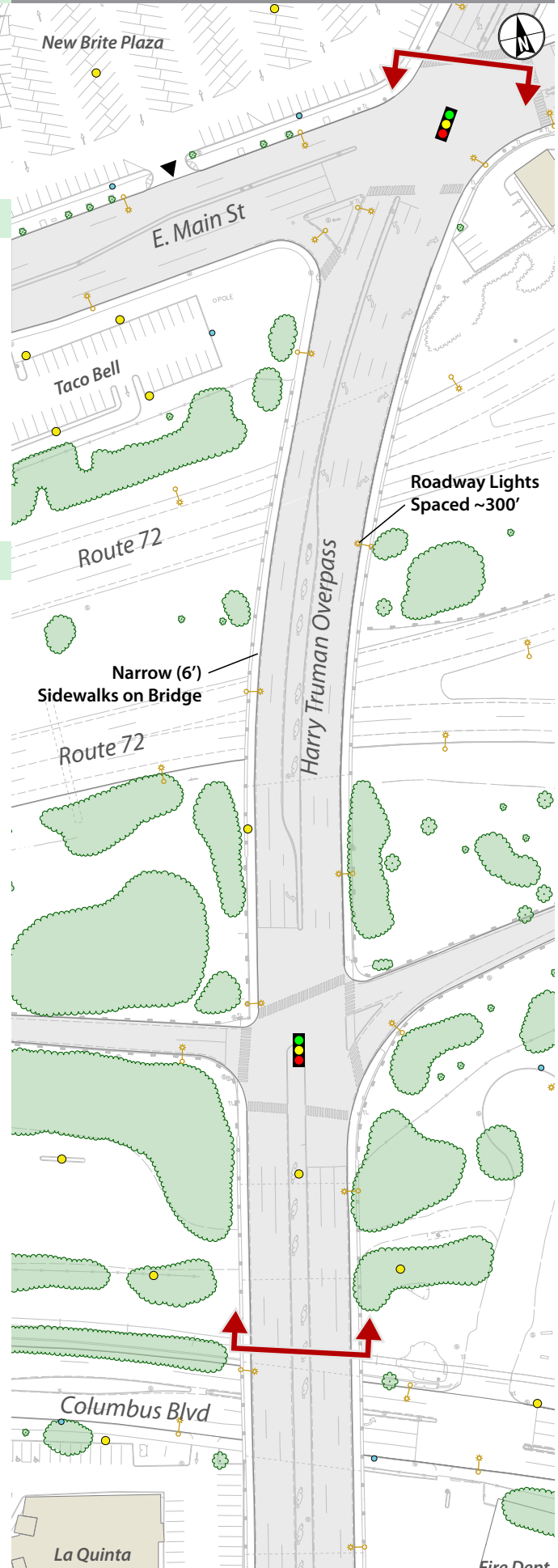


Existing Conditions:

This area links downtown to the north via the Harry Truman Overpass. Harry Truman Overpass carries three lanes of traffic in each direction. The median varies in treatment along the length of Elm/Harry Truman Overpass. Crossing distances are lengthy for pedestrians and there are no pedestrian amenities. With its wide curb-to-curb dimensions and few amenities, it offers little for pedestrians, bicyclists or drivers.

Design Challenges:

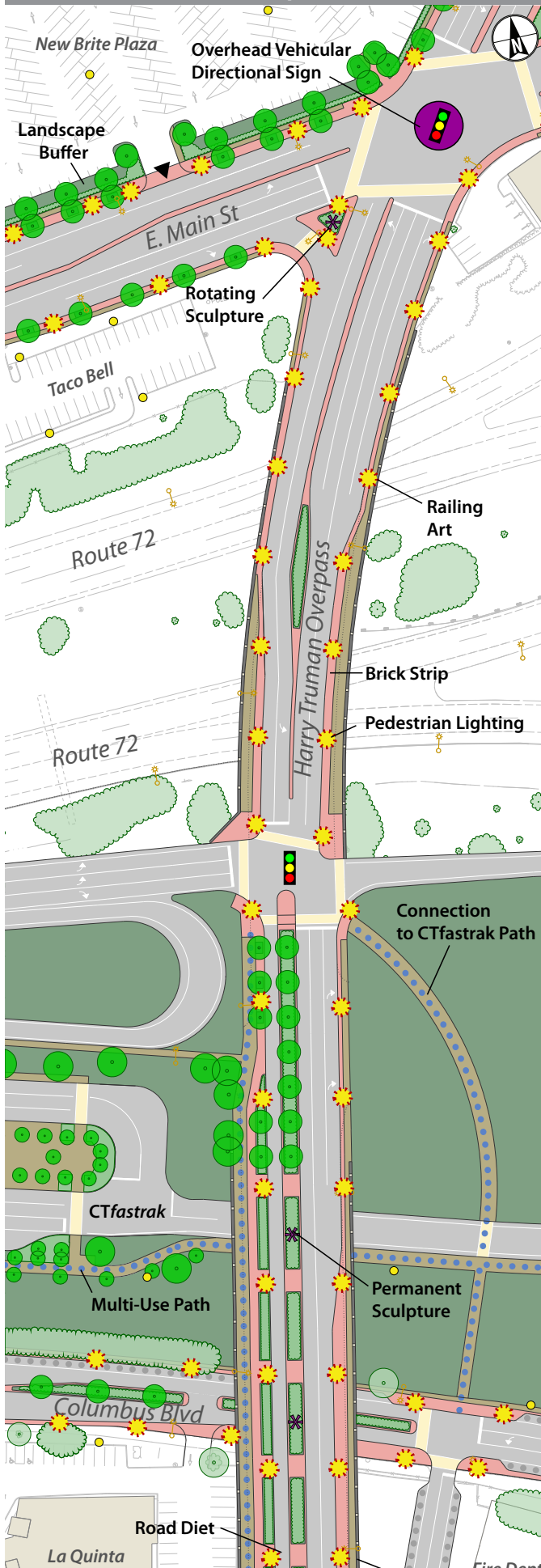
- 76' curb-to-curb street (three 12' travel lanes in each direction plus shoulders)
- Long distance between E. Main St and Chestnut St (1800')
- Bridge over Route 72 offers little interest for pedestrians
- Narrow sidewalks on bridge (6')
- Roadway lighting spaced at approximately 300' intervals with some pedestrian scale lighting



Unwelcoming Pedestrian Environment



Streetscape Plan



Existing Elements

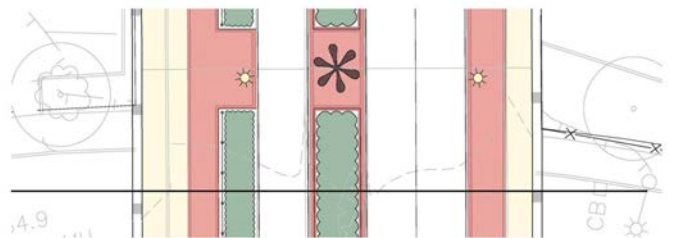
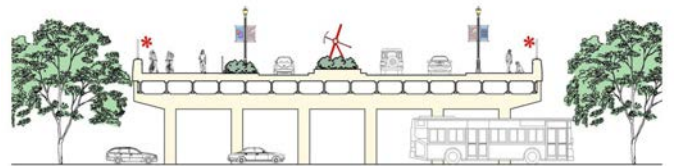
- Pedestrian Lighting
- Driveways
- Trees
- Parking Meters
- Hydrants
- Roadway Lighting
- Trash
- Section Match Line

Plan Elements

- New Ped Lighting
- Closed Driveways
- New Trees
- Brick Strip
- Bike Lanes
- Parking/Loading
- Wayfinding Signs
- Sculpture

Design Solutions:

- Road diet reduces curb-to-curb width to 54' with a median to separate lanes and provide pedestrian refuge.
- Road diet also creates opportunity to upgrade median treatment and provide wider sidewalks north of the Route 72 ramps, and a generous median and multi-use path south of the Route 72 ramps
- Public art is used on the bridge and to decorate the bridge railings
- Bicycle and pedestrian connections to CTfastrak
- Additional pedestrian lighting spaced at 75' intervals.



5: South Main Street Gateway

Harry Truman Overpass

from Columbus Blvd to Chestnut

Elm Street

from Chestnut St to Main St

Existing Conditions:

In the long-term, this area can be redesigned to have a boulevard feel. A roundabout would provide an attractive gateway feature that would calm traffic and enhance the pedestrian environment.

Design Challenges:

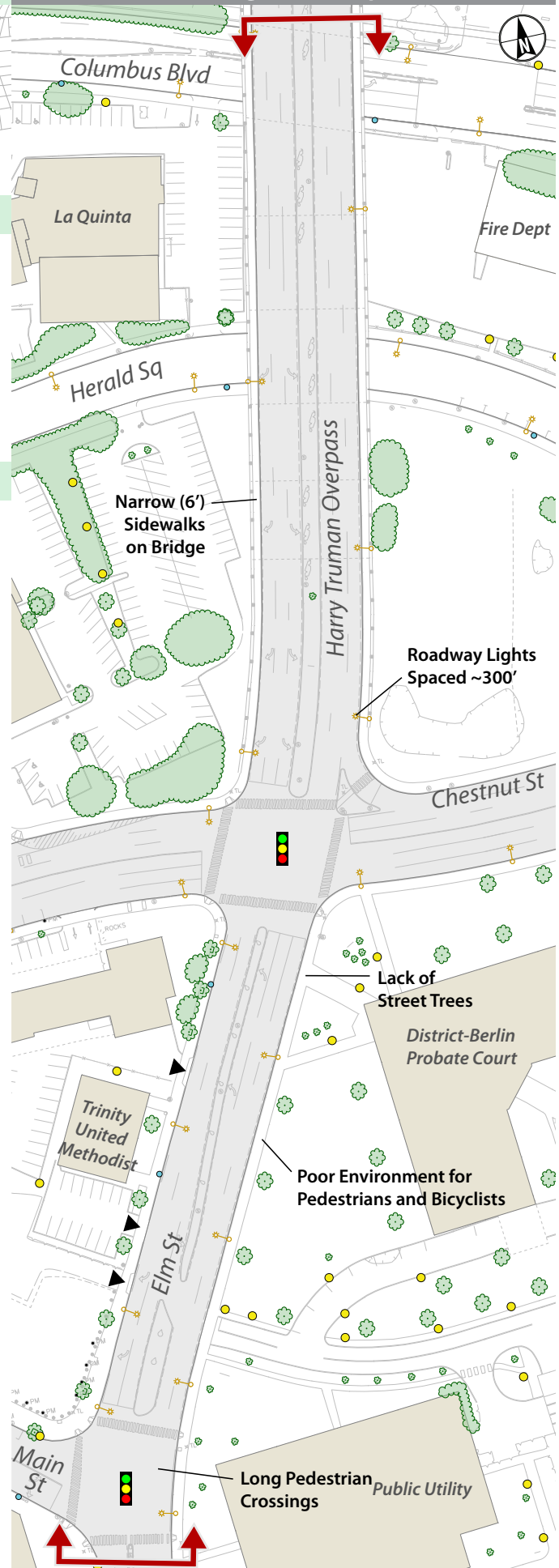
- 76' curb-to-curb street (three 12' travel lanes in each direction plus shoulders)
- Elm Street is approximately 70' curb-to-curb below Chestnut Street
- Bridge over Route 72 provides a poor environment for bicyclists and pedestrians
- Narrow (6') sidewalks on bridge
- Roadway lighting designed for cars, spaced at approximately 300' intervals



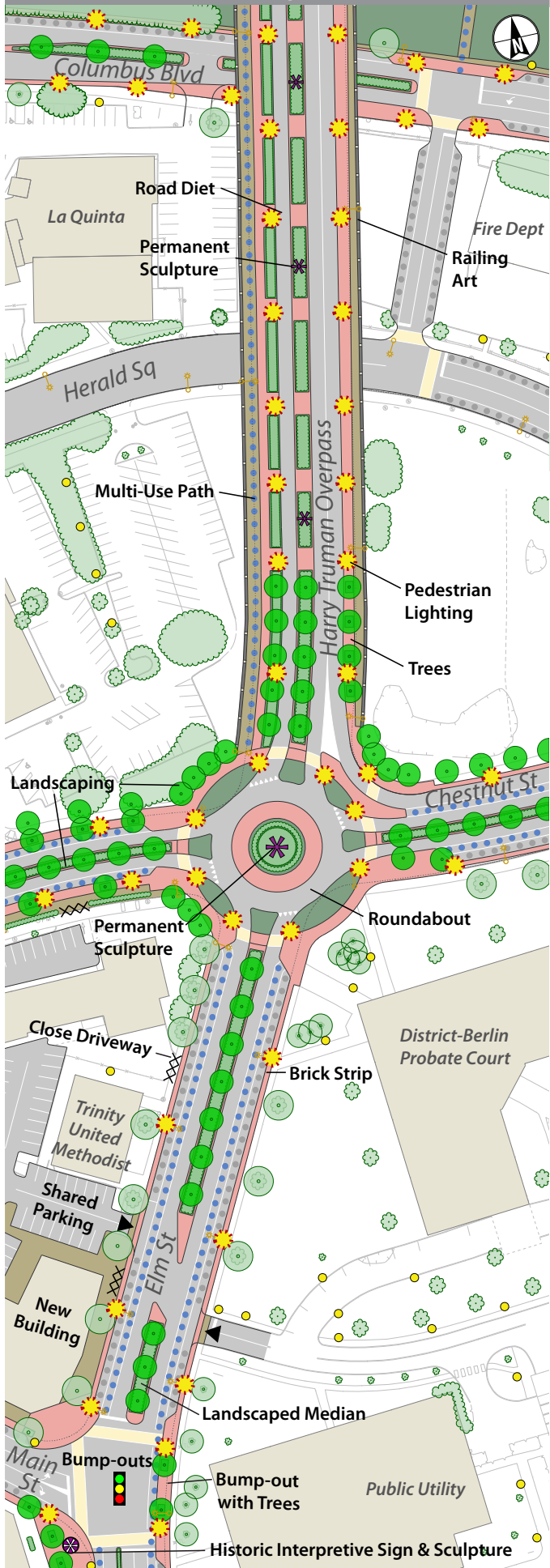
Long Pedestrian Crossings



Existing Streetscape



Streetscape Plan



Existing Elements / Plan Elements

	Pedestrian Lighting		New Ped Lighting
	Driveways		Closed Driveways
	Trees		New Trees
	Parking Meters		Brick Strip
	Hydrants		Bike Lanes
	Roadway Lighting		Parking/Loading
	Trash		Wayfinding Signs
	Section Match Line		Sculpture

Design Solutions:

- Curb to curb width reduced to 54' including the median
- Elm Street road diet reduces travel lane width in each direction to create 7' bike lanes
- Brick strip added along the sidewalk curb edge throughout
- Bump-outs shorten crossing distances at Main Street intersection
- Additional pedestrian lighting spaced at 70' intervals
- Public art on the bridge and decorating the bridge railings creates interest
- Roundabout at Chestnut Street serves as a gateway and traffic calming feature. Permanent sculpture located in the center of the roundabout.
- Landscaped medians on all approaches to roundabout



5: South Main Street Gateway

Elm Street

from Main to Pearl

Franklin Square

from Pearl to Whiting

Existing Conditions:

Franklin Square is an asset to this southern gateway into New Britain, framed by many attractive institutional and other buildings and a host of people generators. The street's width and long blocks present challenges for pedestrians. Reducing the curb-to-curb width of South Main Street provides the opportunity to transition to a Complete Streets environment, adding a wider median, bike lanes and an enhanced pedestrian realm.

Design Challenges:

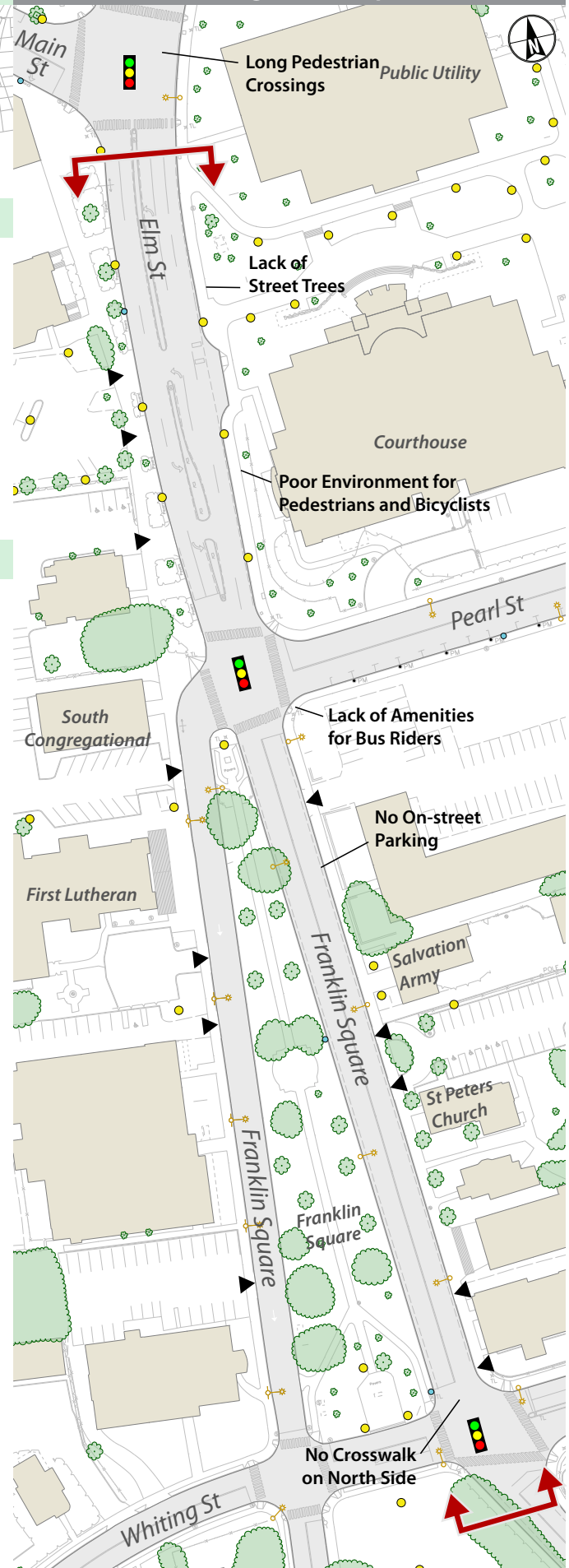
- Elm Street is approximately 60' curb to curb below Main Street
- Sidewalk width varies (10'-20') but lacks pedestrian amenities
- Roadway lighting spaced at 200' intervals; some pedestrian lighting at public buildings
- Lack of accommodations for transit riders



Churches at Franklin Square

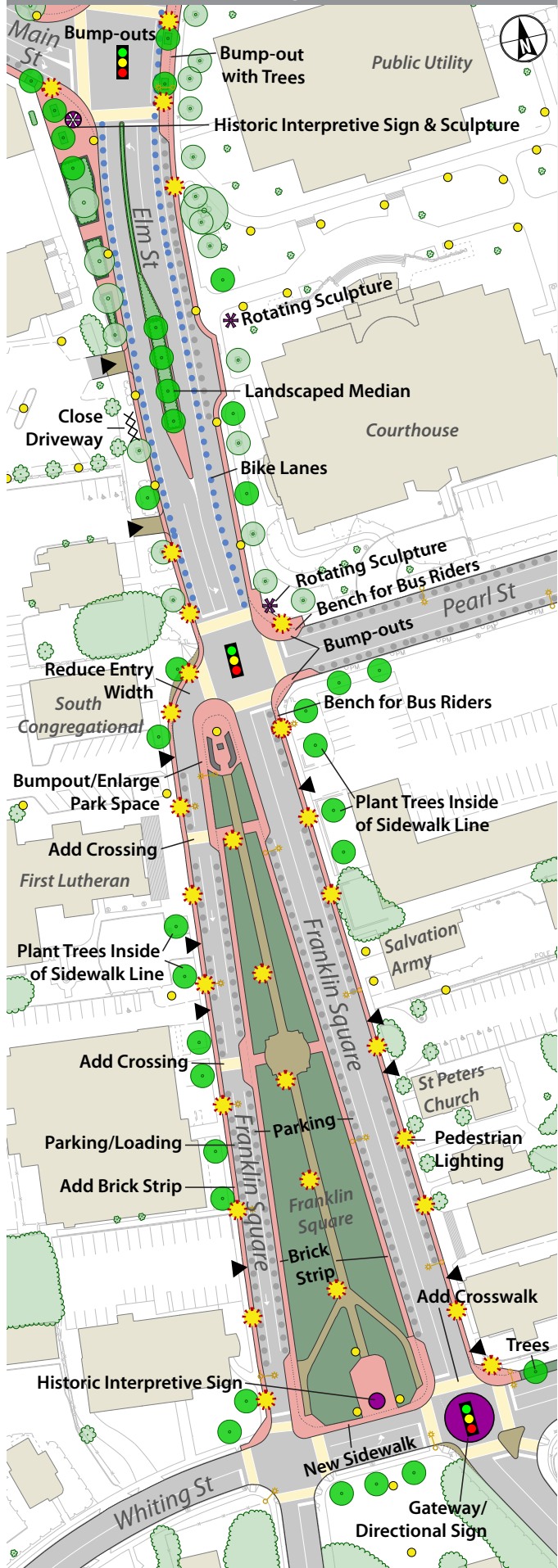


Existing Streetscape



Chapter 5: Study Area Design Concepts

Streetscape Plan



Existing Elements

- Pedestrian Lighting
- Driveways
- Trees
- Parking Meters
- Hydrants
- Roadway Lighting
- Trash
- Section Match Line

Plan Elements

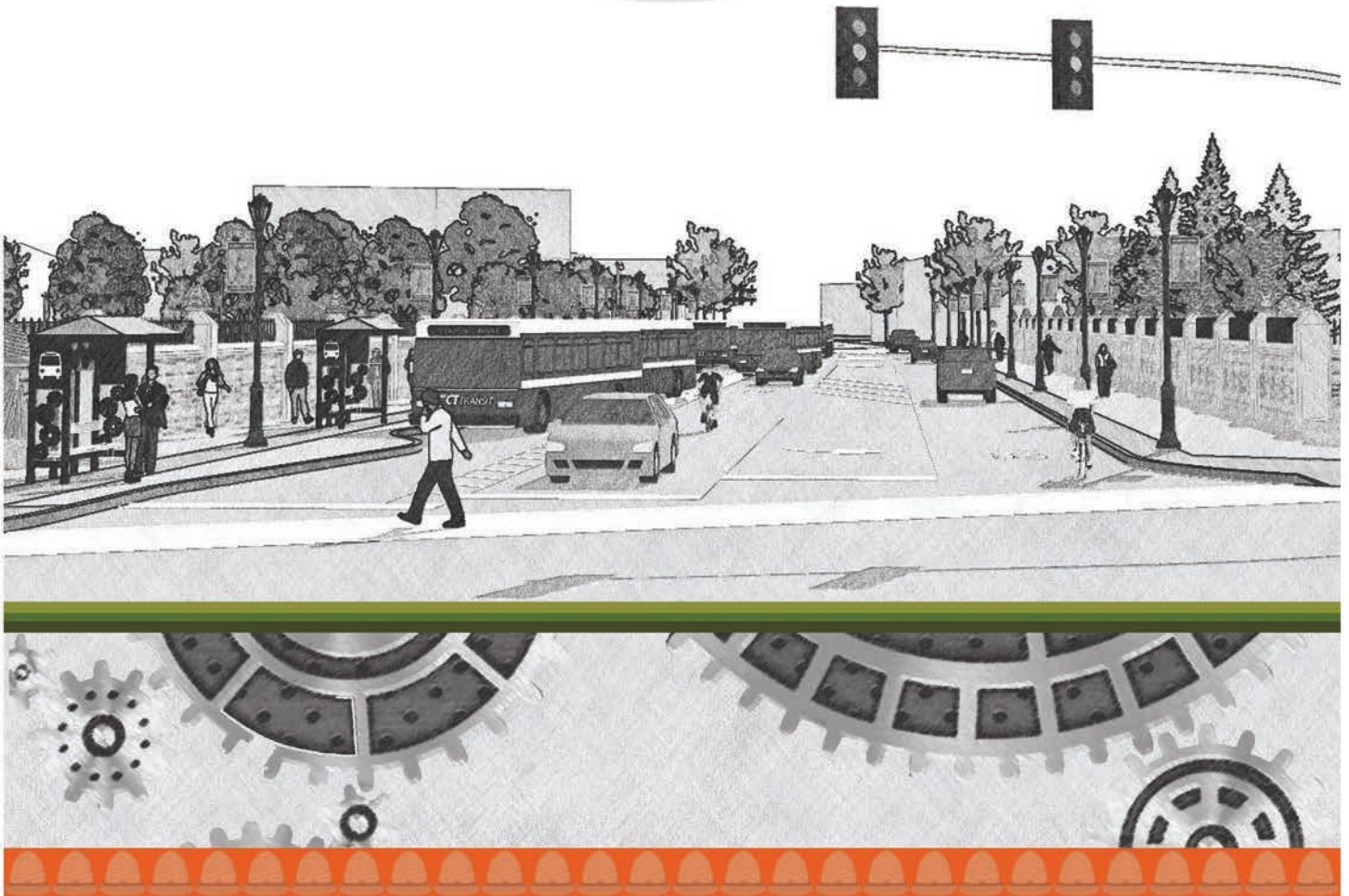
- New Ped Lighting
- Closed Driveways
- New Trees
- Brick Strip
- Bike Lanes
- Parking/Loading
- Wayfinding Signs
- Sculpture

Design Solutions:

- Road diet provides opportunity for a wider median and bike lanes
- Bump-outs at Pearl Street shorten crossings for pedestrians
- 4' brick strip added to sidewalk throughout
- Trees added outside of sidewalk line in grass areas
- Additional pedestrian lighting spaced at approximately 100' intervals
- Franklin Square Park enlarged through bump-outs. New sidewalk strip along southern end completes pedestrian network. Brick strip added inside of existing curbline, adjacent to parking lane
- Historic Interpretive Sign added at Franklin Square.
- Gateway/Directional Signage added at intersection of Whiting and Franklin Square
- New crosswalk added at Whiting Street



Chapter 6: Downtown Parking



Providing parking is a key component in helping to achieve the City's livable environment and economic development objectives, though a balance must be struck so that vehicles do not dominate the landscape. Much effort has been undertaken in this master planning effort to provide opportunity for all modes, and create a high-quality pedestrian environment. These objectives do not preclude providing parking, but require that the approach is to locate and limit parking to where it is needed, so that a "park once" behavior is encouraged. In general, the amount and type of parking available in downtown New Britain is plentiful, though it may not be located well. Proximity to parking plays a key role in successful economic development, and in general, where parking is available, businesses are doing well.

While not part of the master plan effort, a general assessment of New Britain's parking was undertaken to help shape the roadway typology. Using a combination of data from field views, City survey and data and aerial interpretation, the City's downtown on-street surface and garage parking spaces were inventoried.

On-street Metered Parking

There are approximately 140 on-street metered parking spaces in the downtown. West Main, Main and Court Street have the most parking (approximately 90 total), followed by High Street (22) and Chestnut (14).



Surface Parking Lots

There are numerous surface parking lots in the downtown, currently comprising almost 20 percent of the land area. Just over 900 spaces exist in 25 public or privately owned lots.



Garages

The City's two structured parking garages, the Badolato and Szczesny garages, total approximately 1700 spaces. A third underground parking garage for CCSU adds 71 spaces. Current users of the Badolato garage, located on Washington Street and Columbus Boulevard, include approximately 164 city employees, 85 Board of Education employees who are validated parkers, and 110 monthly parkers. A total of 141 spaces in this garage are open to the public.

The Szczesny garage, with access on Bank and Chestnut Streets, currently has 286 monthly parkers, 150 validated parkers, and 41 spaces dedicated to the police department. The recent completion and opening of the new Police Station has increased the Police Department's need to 450 spaces.



Szczesny Garage on Bank Street



Badolato Garage on Washington Street

On-Street Metered Parking

Block	Location	Existing	
		Total	Public
1	High Street	22	22
2	Washington Street	7	7
3	W. Main Street	32	32
4	Main Street	39	39
5	Court Street	19	19
6	Chestnut Street	14	14
7	Walnut Street	6	6
8	Elm Street	0	0
9	Columbus Boulevard	0	0
Sum		139	139

Surface Parking Lots

Lot #	Owner	Existing	
		Total	Public
1	Columbus LLC	21	0
2	New Britain Lodge 957 BPOE	47	0
3	Christian Pentacostal Church	20	0
4	Ten Washington Street LLC	40	0
5	Old Post Office Plaza LLC	25	0
6	TD Banknorth NA	57	0
7	Alderhouse Residential/Czaj	34	0
8	Tsarfaty Abraham Trustee	20	0
9	Immobiliare of Connecticut LLC	36	0
10	Southern New England Telephone Co	75	0
11	SBJS LLC	10	0
12	47 Main Realty LLC	71	0
13	Pride of Conn Lodge 1437	12	0
14	City of New Britain	32	32
15	The Herald	124	0
16	Private	32	0
17	La Quinta	70	0
18	Private	18	0
19	Private	17	0
20	City of New Britain	41	41
21	Private	10	0
22	Private	40	0
23	Private	25	0
24	Private	28	0
25	Private	16	0
	Court Street Shared Parking	0	0
	Elm Street Shared Parking	0	0
Sum		921	73

Parking Garages

Lot #	Owner	Existing	
		Total	Public
1	Badolato Garage (note 1)	500	141
2	CCSU ITBD	71	0
3	Szczesny Garage (note 2)	1,200	723
Sum		1771	864

New Britain Parking Inventory



Increased parking was identified as a critical need in the downtown area. While the Master Plan creates additional on-street parking in several locations, two additional parking concepts are proposed: back-in angled parking, and shared parking.

Head-Out Angled Parking

Head out or back-in angled parking is proposed for all angled parking areas in the downtown. Back-in angled parking provides many benefits. Drivers often have restricted views of oncoming vehicles when backing out of a head-in space. With head-out angled parking, a driver can clearly see approaching vehicles, bicyclists and pedestrians. For shoppers, the trunk is located adjacent to the curb and sidewalk, making loading and unloading easier. Back doors are also positioned to funnel children to the sidewalk rather than into the active street.

Since head-out angled parking requires an adjustment in travel behavior, explanatory signage is critical. The example here simply illustrates how to maneuver.



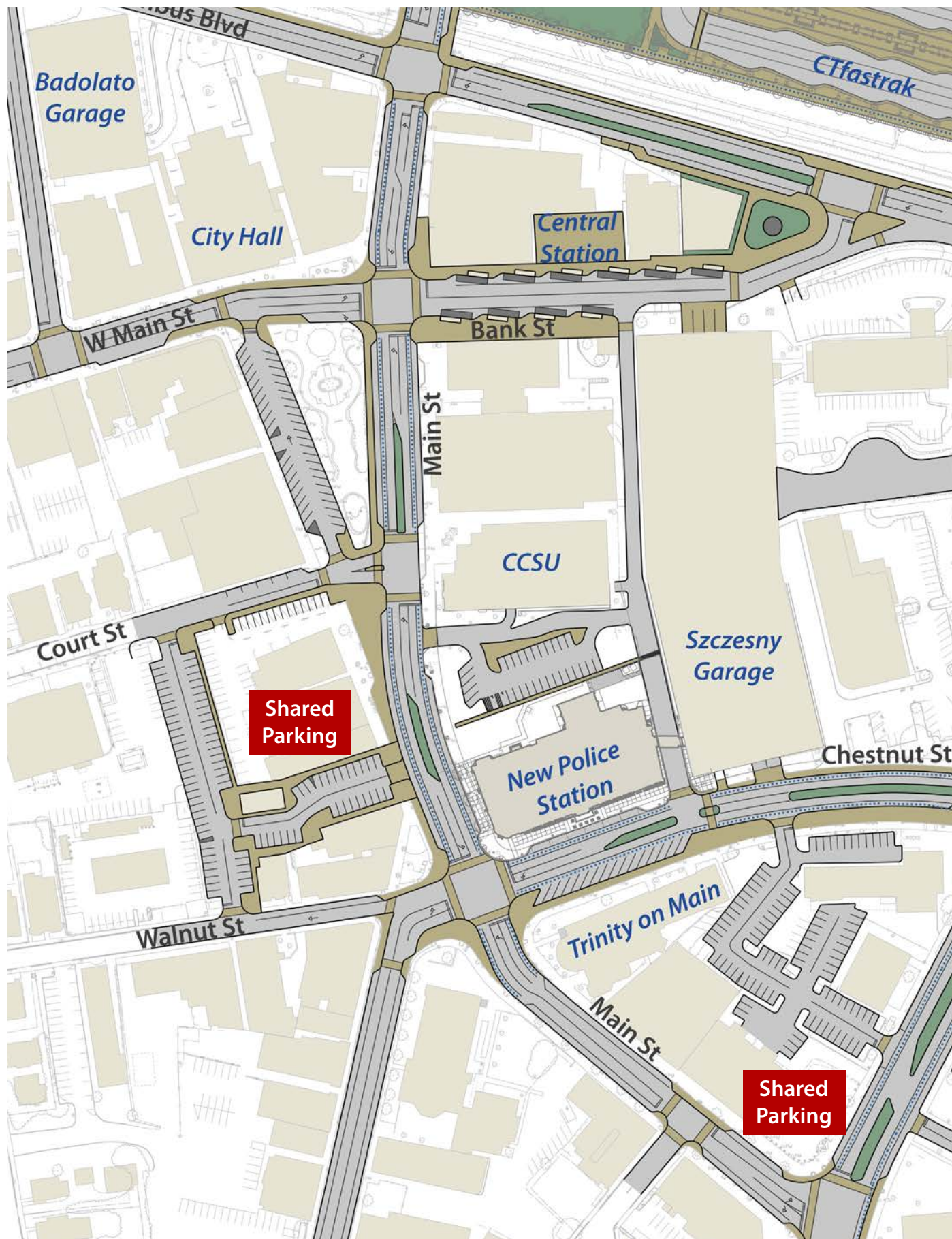
Shared Parking

To maximize existing surface parking lots, the Master Plan encourages the use of shared parking. This approach takes advantage of the reality of how different land uses make different demands on parking, and creates a more efficient use of land. In mixed use environments, parking demand patterns can differ during the day and evening. For example, an office building will utilize parking spaces primarily during the day. If the office building has a ground floor restaurant which serves dinner only, they can share the same parking lot. This kind of shared arrangement results in a need for fewer total parking spaces when compared to the total number needed for each individual use. General use parking lots, and on-street parking are other forms of shared parking.

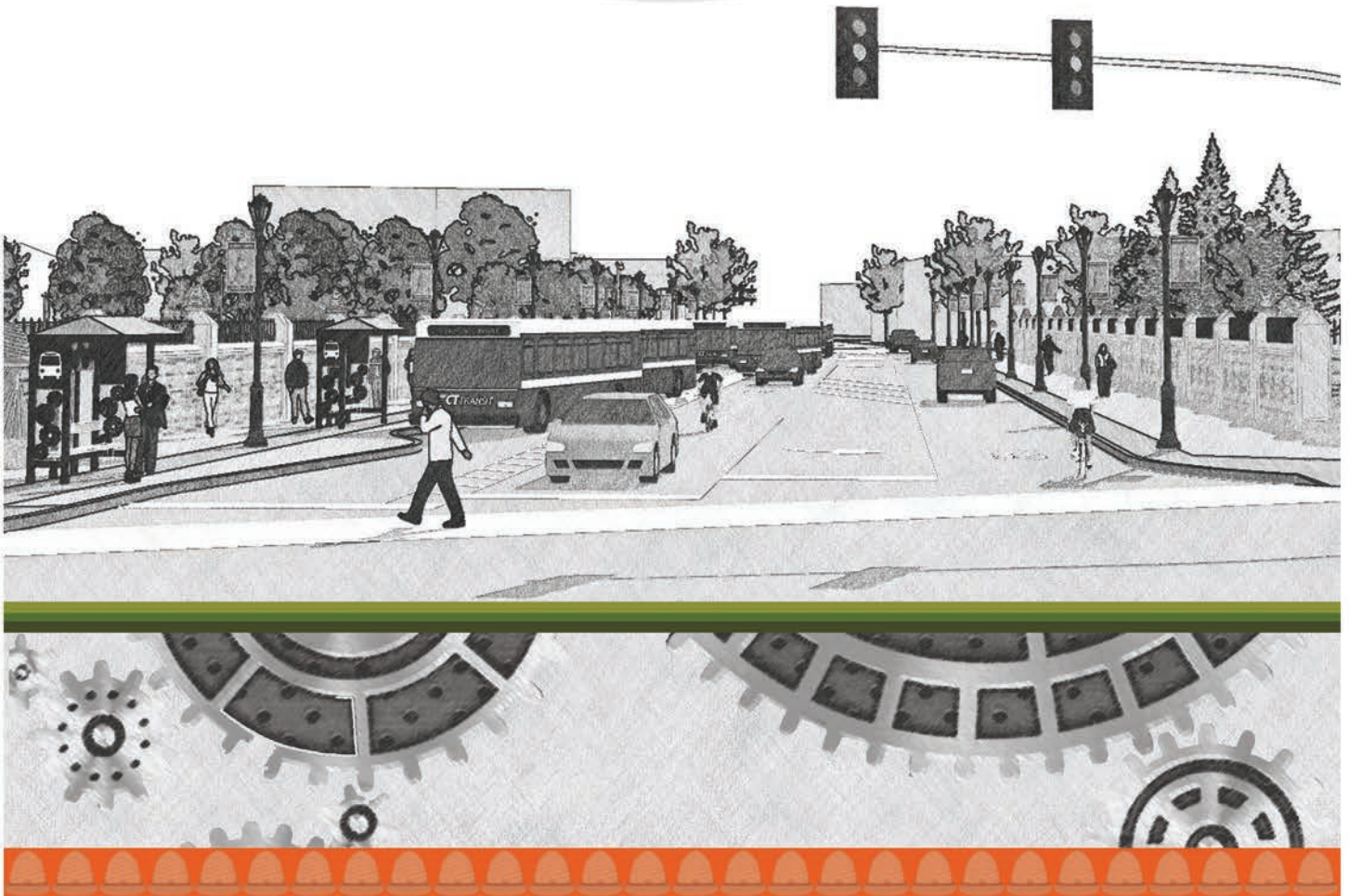


As shown at right, shared parking areas should be explored in the parking lots between Court and Walnut and behind Trinity on Main. These blocks have active restaurant and cultural uses which can use additional parking at night and on weekends.





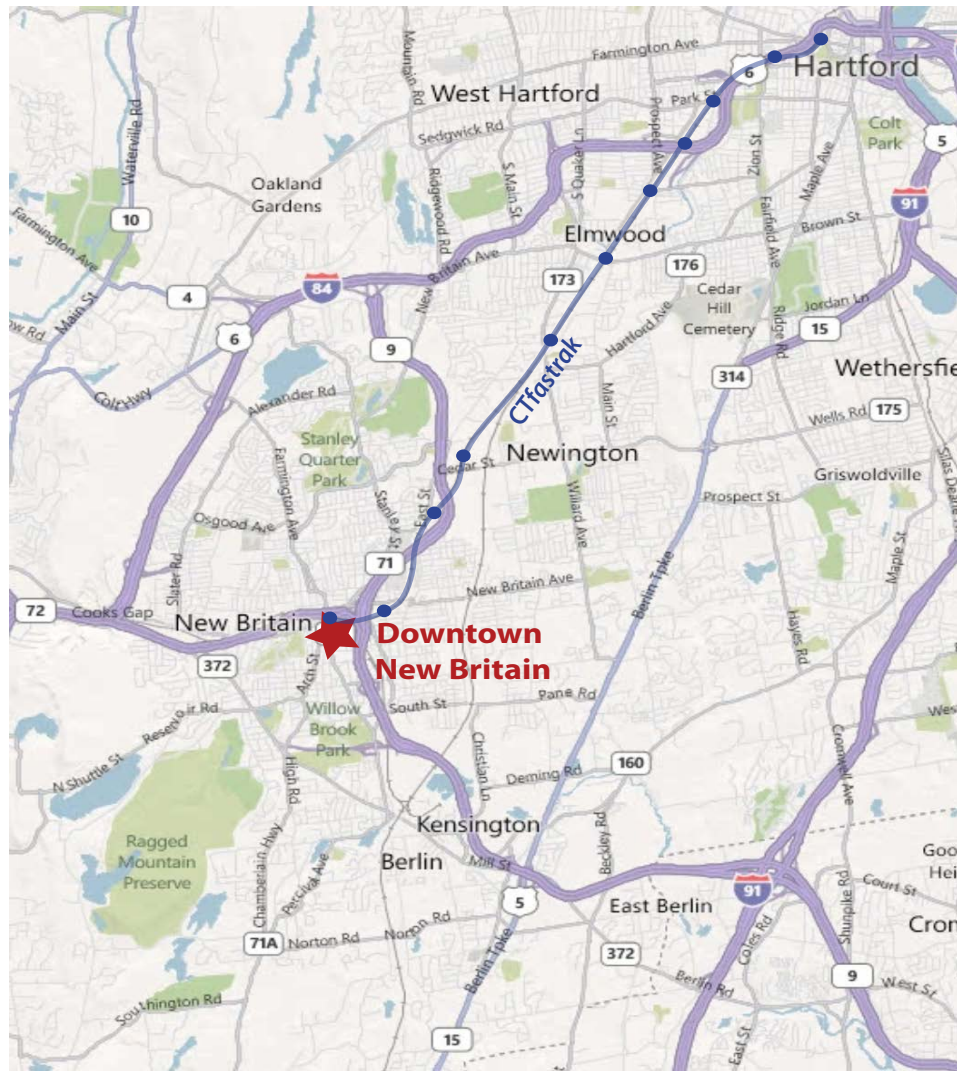
Chapter 7: Bus Connectivity



Much of the redevelopment opportunity downtown New Britain is preparing for is directly related to CTfastrak, which will have a terminus station in the heart of downtown New Britain. CTfastrak will provide frequent, direct and flexible bus service that will use a new dedicated roadway to avoid traffic congestion on local streets and on I-84. This one-seat, no transfer ride will connect Central Connecticut's regional employment, shopping, cultural, educational and healthcare destinations.

Transfers will be available to all local New Britain Division local bus routes. Express bus service from points south and west will enter the CTfastrak guideway from a dedicated off-ramp from Route 72, bypassing I-84 traffic for continuing service to Hartford.

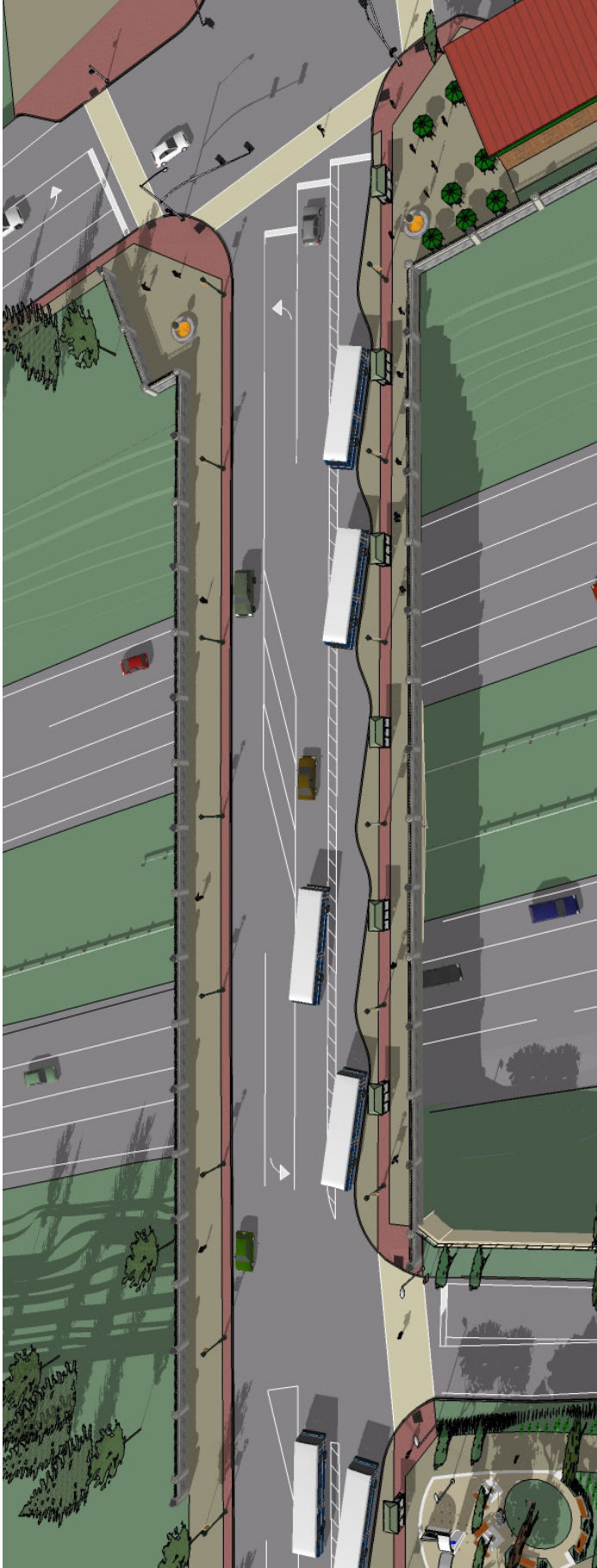
CTfastrak



There are 12 CTransit bus routes that traverse New Britain, and form part of a larger area-wide bus system that spans multiple towns and cities. West Main, Chestnut, Columbus Boulevard, and Bank Street carry multiple routes through downtown and connect to CTfastrak. Bank Street between Main and Columbus Boulevard can become particularly congested, particularly during peak times. The pedestrian environment in this location is poor, and improving the transit rider and pedestrian environment is important.

New Britain Transit/Local Bus Service in New Britain



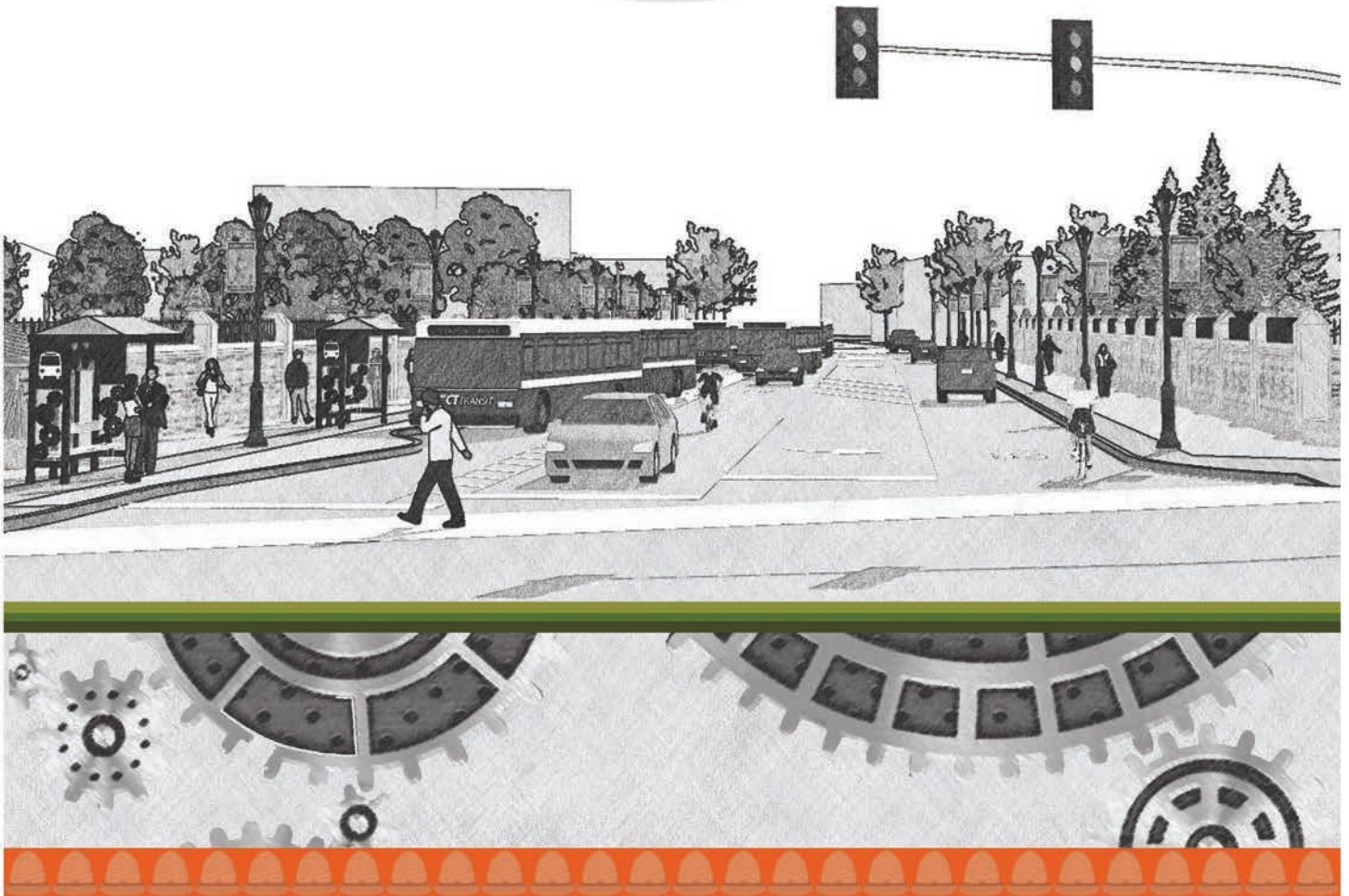


Main Street Overpass Concept Linking CTfastrak and Local Bus Service

Chapter 5 provides more detail about the plan to better connect New Britain's local bus service to the CTfastrak terminus station. In 2012, the City was awarded a \$1.6 million FTA Bus Livability grant to help fund construction activities related to the plan. The City is working with CTransit and the Connecticut Department of Transportation (ConnDOT) to explore making service changes to coordinate CTfastrak buses along with local bus routes to promote bus ridership and complement New Britain's goal of becoming a highly livable downtown. Elements being discussed include a downtown loop service which would link key destinations and events with CTfastrak, and other enhancements to local bus service.



Chapter 8: Wayfinding and Historical Signage



Way-finding is an important element of New Britain's Complete Streets Master Plan. Not only does an effective sign program help visitors and residents easily find their way around the city, but it also helps to provide New Britain with a consistent identity, representing the image, mission and aspirations of the city. The opportunity to include an historic and cultural component within this system adds a unique and exciting element to the program.

The way-finding portion of the study began with an analysis and photo documentation of New Britain's existing vehicular and pedestrian signage, gateways and entry routes into the city, circulation and routing patterns, districts and pedestrian paths. Signage programs in the surrounding area and in other cities of similar size around the country were also reviewed. Building on this analysis, basic way-finding principles and design criteria were established. Through a series of working group meetings, destinations, programming and schematic design concepts were developed. The comments gathered from these meetings were then used as the criteria and inspiration for developing the schematic design for the Way-finding and Historic Signage Element.

Existing Signs



Signage Criteria

In analyzing New Britain's signage needs, the Working Group identified the following goals and objectives to guide way-finding development:

- Three distinct types of information need to be conveyed:
 1. **Way-finding** — directing vehicles and pedestrians to desired destinations
 2. **District Identification** — defining the significant historic and cultural areas within the Study Area
 3. **Historic + Cultural** — conveying the historic traditions and cultural richness of the City
- The sign system should promote a consistent and coordinated identity for the City

- The sign system should help to 'brand' New Britain as a unique and vibrant place in conjunction with the Master Plan.
- Way-finding signage should be clear, organized and coordinated, with an identifiable look for both directional and informational signs. The primary goal of an effective system is to provide information in a straight-forward and consistent form, allowing both visitors and residents to find their destinations easily.
- Vehicular directional signs need to direct visitors to the downtown area from the main vehicular access points and CTfastrak. Since New Britain has a very walkable city center and a number of viable parking options, our goal was to encourage a **"park once"** mentality - direct vehicles to appropriate parking areas, and then direct pedestrians to individual destinations.
- District identifiers should mark the significant districts within the study area, including both designated historic districts (West End, Walnut Hill) as well as cultural districts such as the Broad Street area (Little Poland) and the Downtown District. They also should create a sense of place, a sense of importance and/or a sense of excitement, depending on the venue.
- Historic and cultural information should be presented in an informative and entertaining manner. The City's rich and varied history should be promoted to visitors and residents, identifying significant site and events as well as interesting historic facts. It should incorporate text and images, as well as providing a means to link to extending and/or changing information.

Existing Way-finding Sign



Analysis

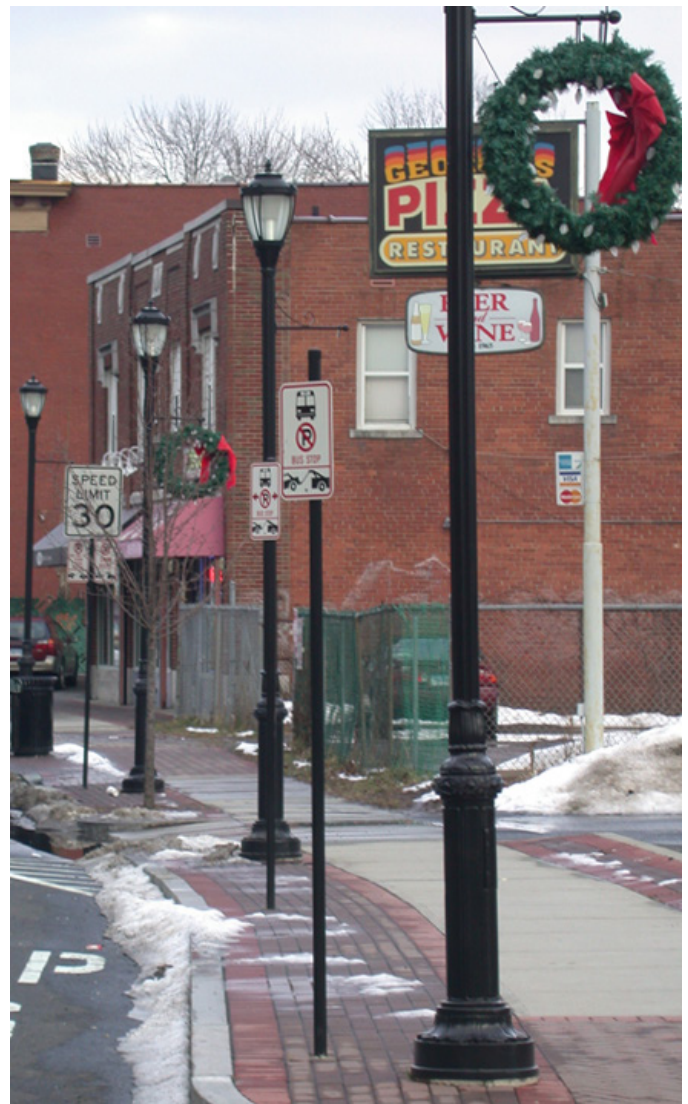
Important destinations within the study area were developed with the Working Group, and a list of the significant cultural and historic sites. Existing signs and street furniture were surveyed with respect to color, size, placement, materials and framework.

The study area has an abundance of signs, some that have originated with the City, some from the State, and many that appear to be from private sources. Little coordination exists, resulting in visual clutter and a lack of clear, easily identifiable information, especially to a visitor unfamiliar with the City.

The city's existing signs use a wide variety of sizes, styles, typefaces and mounting techniques. The most consistent element is the use of color: many of the signs use the city's identifying colors of burgundy and gold with white and occasionally black, as an accent. This color scheme coordinates well — perhaps too well — with the city environment. There are major fading issues with the burgundy color, and the gold does not provide a strong enough contrast for current signage codes. For the new signage system, two other colors will need to be added: a blue to code for parking and the lime green used in the CTfastrak program.

Much of the existing street furniture framework is black metal work. The newer street lights, bus kiosks, benches, and even the pavilion at Walnut Hill Park use this vocabulary, which also relates to the City's historic ironwork fences and roof trims.

Existing Park Sign



Black Metal Poles in Hartford



Design Recommendations

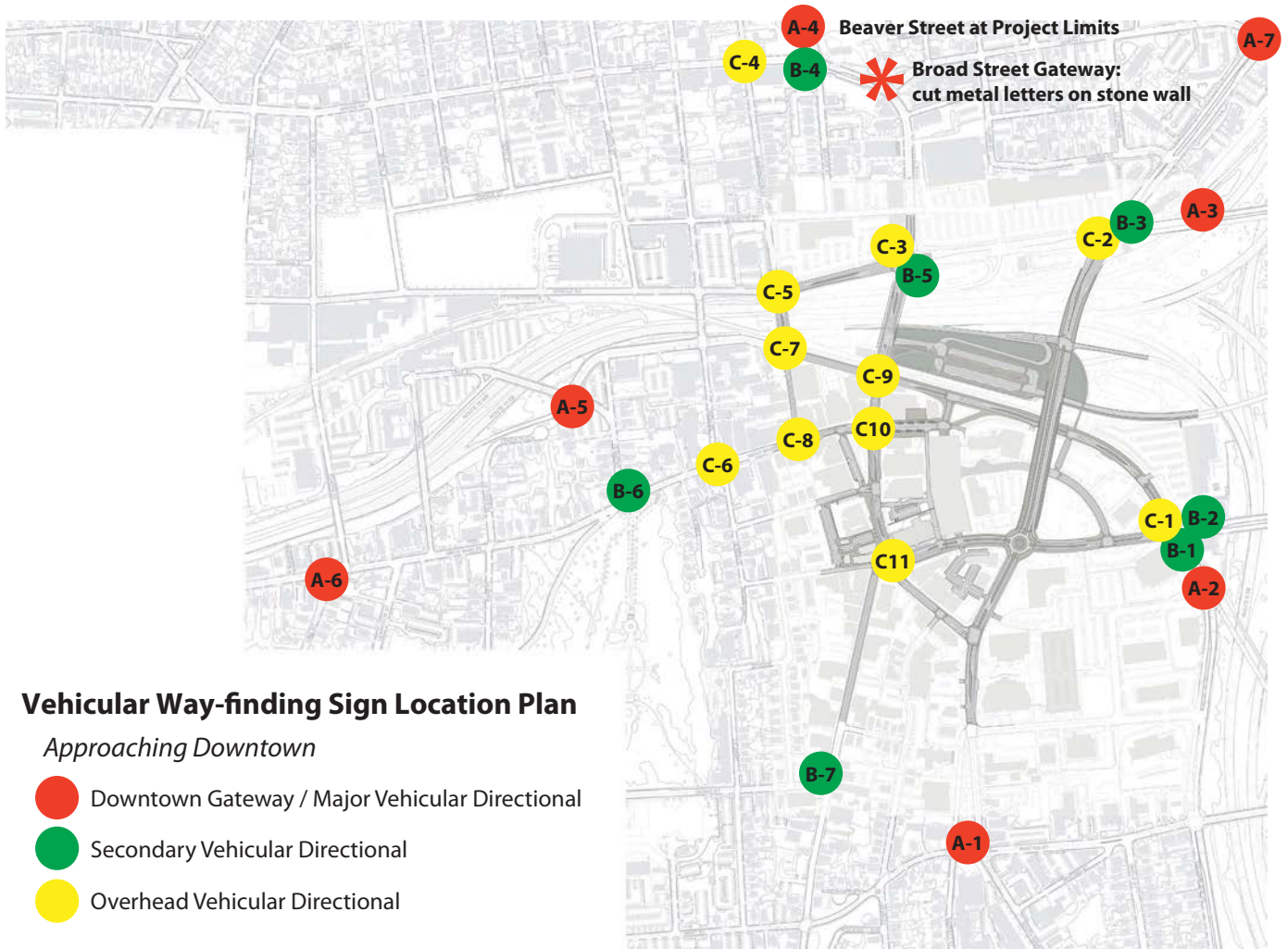
Way-finding

This system of gateway, way-finding and arrival signs directs visitors and residents to major destinations around New Britain, and adjacent parking areas. The focus of this system is to encourage visitors to park their cars and walk. Some components that make up this system include:

Programming

Due to the ongoing redesign and reconstruction of the Central Park / Downtown area, it was decided that programming the approaches leading into the downtown area would be more appropriate at present. Therefore sites for seven gateway / major vehicular signs and seven secondary vehicular directional signs were designated. Additionally, eleven intersections were identified for overhead vehicular directional signs.





Design Criteria

Typeface

Since federal guidelines require a sans serif typeface for traffic directional signs, Gotham was chosen as not only meeting federal requirements in terms of legibility but also being a well-designed and elegant face.

Gotham typeface

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

Colors

To meld the diverse colors that need to be incorporated — the City's burgundy and gold, the iconic blue for parking and the CTfastrak lime green — adding a dark gray color as a neutral background will allow the burgundy and gold to work as accent colors, while providing the required legibility contrast when combined with white lettering. This scheme will also coordinate with the existing colors in New Britain's historic environment while providing a fresh look to the new signage.

Color Chart



Framework

Black metal frame elements would coordinate with the existing street furniture, make reference to the city's historic ironwork, and would allow the incorporation of historic or iconic elements. It is also recommended that secondary sign posts (parking regulation, speed limit, bus stop, etc.) should be black: this would not only unify and coordinate with the rest of the street furniture, but would visually disappear, resulting in less visual clutter and giving the attached signs more prominence.

Black Metal Framework



Suggested Sign Types

Gateway / Major Vehicular Directional

A large gateway sign welcomes visitors to the downtown area and directs them to major destinations within the area. The sign would be dark gray with white lettering and a burgundy accent band. The black metal framework would include an openwork arch containing a medallion representing the city's beehive logo.

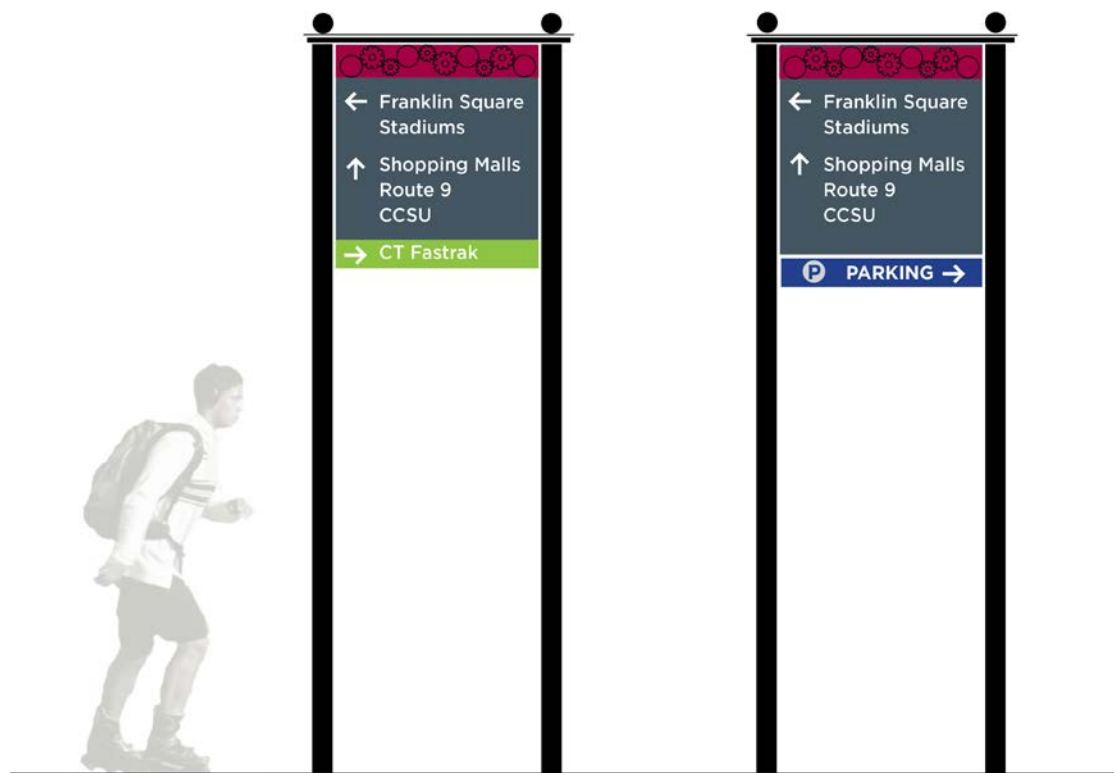
Gateway / Major Vehicular Directional



Secondary Vehicular Directional

A smaller directional sign would be dark gray with white lettering. This sign would have an abstracted pattern of tools/gears over burgundy as a top decorative border and a simple black frame. Parking and CTfastrak bands would be included as needed.

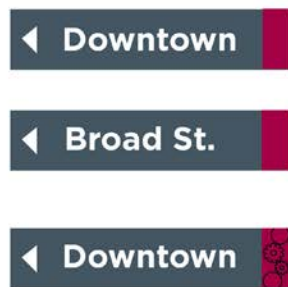
Secondary Vehicular Directional



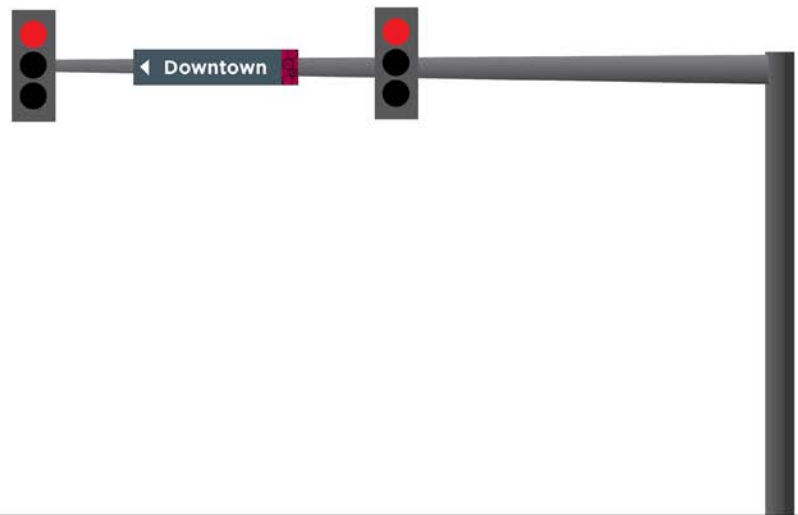
Overhead Directional

These signs can be single, double or stacked directionals attached to the traffic arm poles as needed. They would be dark gray with white lettering and a decorative burgundy edge border. These signs can include street names where appropriate.

Overhead Directional



with pattern



Can be single or multiple / single sign shown



Pedestrian / City Center Vehicular Directional

Two options are suggested here, depending on location. Both follow color system of the other way-finding signs but with two different framing options, both incorporating the beehive logo and patterned burgundy accent band.

Pedestrian / City Center Vehicular Directional



Way-finding Signs in Context



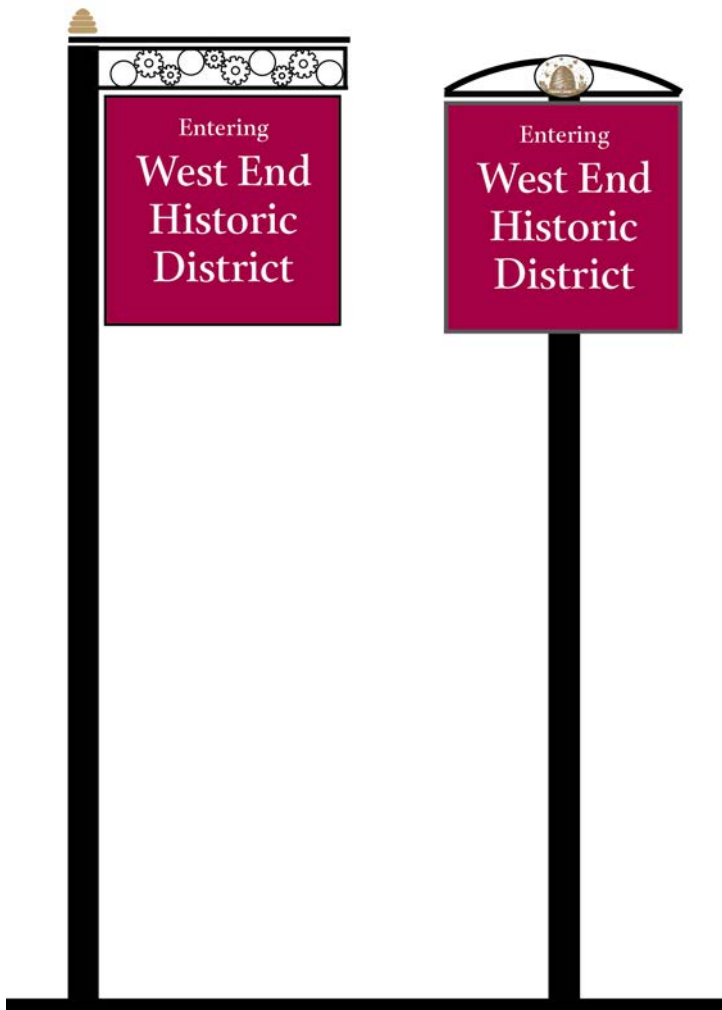
District Markers

District Markers

Banners

Banners would work well to identify the Downtown and Broad Street/Little Poland districts. Other areas, such as Arch Street, the Arts District, Walnut Hill Park, and the overpasses might also be considered. Banners add visual continuity and excitement to an area and can easily be switched out to promote special events.

Truck clearance is a concern in some locations. In these areas the banners could be narrower, or selectively attached to traffic arm poles. As the downtown area is reconfigured, new lightpoles may have a larger setback, eliminating the problem.



Sign Panels

Banners would not be appropriate for some of the districts within the study area, particularly the residential historic districts of the West End and Walnut Hill. Here a porcelainized enamel panel marking the entrances to these areas would be more appropriate. The panels would be small, 1.5" square, burgundy with white lettering, and a black decorative framework similar to that of the pedestrian way-finding signs.

In certain areas such as Broad Street/Little Poland these could be used in conjunction with banners.



Historic and Cultural

This series of informative double-sided sign kiosks is designed to provide both visitors and residents a glimpse of the cultural and historic richness of New Britain. The goal is to be entertaining and informative, providing the viewer with basic information and links to more detailed material online. Some components that make up this system include:

Programming

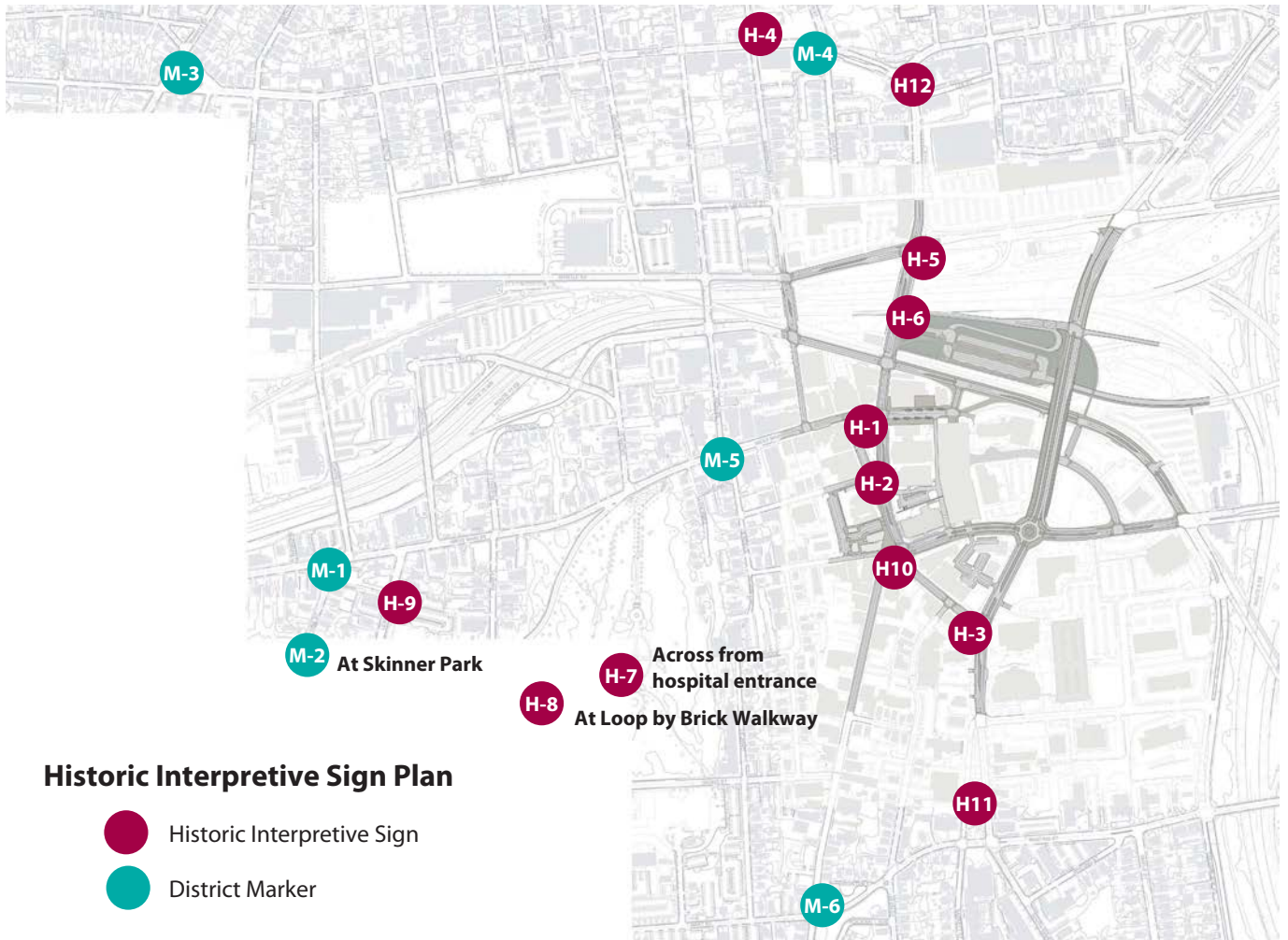
Eleven possible sites and topics have been identified in conjunction with this study, with the expectation that the system could easily be expanded in the future.

- H-1** Central Park I
City Hall / architecture on City Hall block
Central Park / city history
- H-2** Central Park 2
NB's Industrial Origins
NB's War Contributions
- H-3** South Church Area
Churches & Steeples / theater district
Arch Street Neighborhood : German heritage
Original blacksmith shop location
Why called Arch Street
- H-4** Broad Street
Broad Street / Little Poland history (2 sides)
- H-5** East Main / Main Street
Great Swamp area
Elijah Burritt –observatory / astronomy /
penny postage
Opera House
- H-6** Busway
Transportation in NB – trolleys, car manufacturers
General history of NB
- H-7** Walnut Hill Park (location across from Hospital entrance)
Monuments in NB
History of Walnut Hill Park
- H-8** Walnut Hill Park at Loop by Brick Walkway
Parks in NB
Olmstead's Design
- H-9** New Britain Museum of Art Area
Art in NB
Public Art in the City
- H-10** Main / Elm Street
General History of NB
Interesting Facts about NB
- H-11** Franklin Park
Contributions of Immigrant Groups to New Britain
Elihu Burritt's Contributions
- H-12** On Main Street heading towards Broad
TBD
Links to Broad Street sign if doing as walking tour

District Markers for:

West End Historic District
Broad Street District / Little Poland
Walnut Hill Historic District





San Francisco Public Library typeface

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

Color Chart



Design Criteria

Typeface

Federal guidelines are not applicable in this area, so a more traditional serif typeface has been chosen. This is in keeping with both the style of the signs and the material presented and provides a contrast with the more utilitarian face used in the way-finding signs. This typeface would also be used on the District Marker sign panels.

Colors

Because these signs are designed to be permanent and to be produced out of porcelainized enamel, the background color can be the City's burgundy with white lettering.

Framework

The framework would be black metal with a decorative top panel of abstracted openwork gears with a center medallion containing the City's beehive logo. This would coordinate with the gateway and district marker sign framework as well as make reference to the applied decorative border on the way-finding signs.



Sign Panel Kiosks

These panels would be poster size (30" x 40") and contain both copy and images as appropriate. Space will also be provided for a QRC sticker to be applied. These easily generated stickers would allow viewers with smart phones to access a coordinating webpage to get additional information on the panel's topic. These webpages, if integrated into the City's main website, would allow information to be updated as needed. Since the codes would be on applied stickers, they can easily be replaced as the technology changes.

Sign Panel Kiosks



Sample QRC Sticker

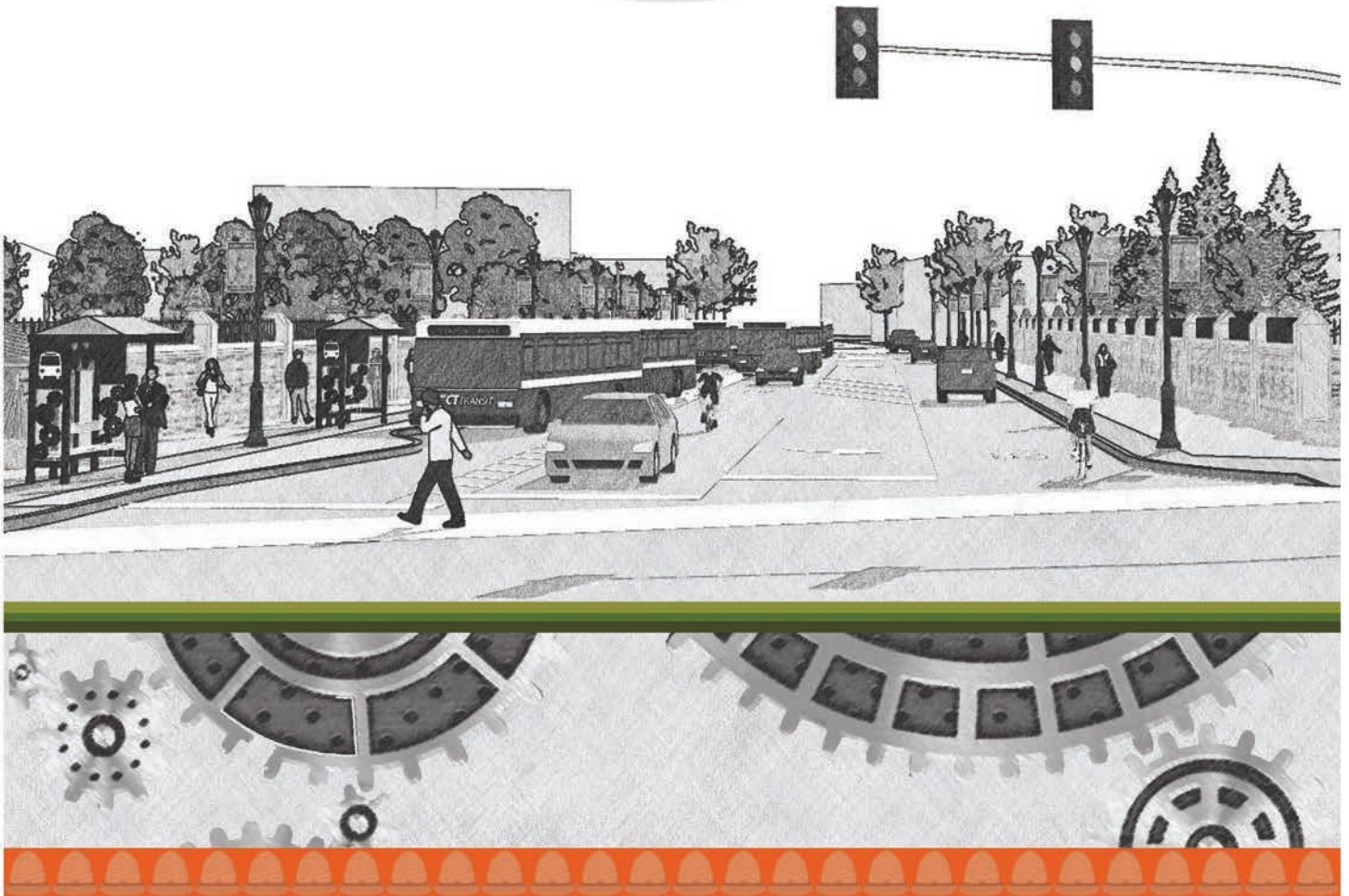


The goal of the Way-finding and Historic Signage program is to provide a coordinated and visual exciting sign program that incorporates the three required types of way-finding, district identification, and historic/cultural information into the Master Plan. While the each type is distinct, they are coordinated in color, design, and framework, providing a fresh, signature look to New Britain's downtown signage, and the basis for a city-wide signage system.





Chapter 9: Public Art and Monuments



The arts, both visual and performing, play a strong role in New Britain. The city is home to the nationally-renowned New Britain Museum of American Art, the first museum of strictly American art in the country, located just west of the downtown core.

The city has a number of existing monuments, sculptures and wall murals downtown. These art installations not only provide both visual interest and a source of civic pride, but also serve as a destination for visitors to New Britain.

New Britain Monuments and Memorials

Monument/Memorial	Park/Site	Location
Belvidere Area WWII Veterans	Campbell Square	Stanley St./Hillcrest Ave.
Civil War	Central Park	Main St./West Main St.
Fourth Ward WWII Veterans	Kulper Park	Dwight St./East St./Jubilee St.
Louis Gentile Salute to Women	Walnut Hill Park	184 West Main St.
Holy Cross WWII / Korean Conflict		Eddy Glover Blvd. Holy Cross Median
John F. Kennedy	Walnut Hill Park	184 West Main St.
Korean Conflict	Central Park	Main St./West Main St.
Brig. Gen. Tadeusz Kosciuszko	Kosciuszko Park	Burritt St./Clinton St.
Captain Brian S. Letendre	U.S.MC. Letendre Park	Pendleton Rd./Sunnyslope Dr.
Major General John Paterson Time Capsule	Central Park	Main St./West Main St.
General John Patterson	Patterson Park	East St./Allen St.
Brig. Gen. Casimir Pulaski	Pulaski Park	Broad St./Burritt St.
Israel Putnam Stone/Revolutionary War	Walnut Hill Park	200 Grand St.
Sherrod E. Skinner	Skinner Park	Corbin Ave./Lincoln St.
Spanish American War	Willow Brook Park	635 South Main St.
George S. Sulliman		Stanley St./Eddy Glover Blvd.
Henry J. Szczesny	Parking Garage	35 Bank St.
TGM	TGM Park	Booth St./Smith St.
Veterans' Section	Fairview Cemetery	120 Smalley St./Section 18
Vietnam War	Central Park	Main St./West Main St.
Vietnam War	Willow Brook Park	635 South Main St.
Vietnam War	VFW	41 Veterans' Drive
George Washington/Bicentennial		Eddy Glover Blvd. Commonwealth Ave. Green
WWI	Walnut Hill Park	184 West Main St.
WWII	Central Park	Main St./West Main St.

Belvidere Area WWII Veterans *Stanley St./Hillcrest Ave/Campbell Square*

Pvt. John Campbell was the first New Britain serviceman to be killed in WWII. He was killed at Clark Field in the Philippines on December 8, 1941 in the first Japanese “sneak” attack on the island. The Campbell Square Honor Roll, at Stanley Street Hillcrest Avenue, memorializes servicemen who died in WWII and were residents of the Belvidere when they went into service.

ERECTED AS A LASTING TRIBUTE TO THE MEN OF THE BELVIDERE AREA WHO SERVED THEIR COUNTRY IN WORLD WAR II



Belvidere Area WWII Veterans

Civil War *Main St./West Main St./Central Park*

This Civil War monument, called the Soldiers and Sailors Monument, is 44 feet in height and styled in Greek Ionic, the same as at Pompeii, with obelisks the base suggesting that it is a commemorative of the dead, each with a commemoration cut into them. The winged figure of victory on top typifies the reconciliation between the two sections of land which were at strife. Names of those who served with the Union are listed inside. It was dedicated as a lasting monument to those who served the “War of the Rebellion”. The monument was recently restored by the Pawlak Administration in honor of it’s 100th anniversary, and the Winged Victor statue was replaced—the original can be viewed in the rear lobby of City Hall.” Four piers holding lamps have a battle name on each block of stone, outboard faces, 8 battles per face, 16 per pier--2 sides of each pier have battles listed and 2 sides have lamps – 64 battles listed in total on all four piers.

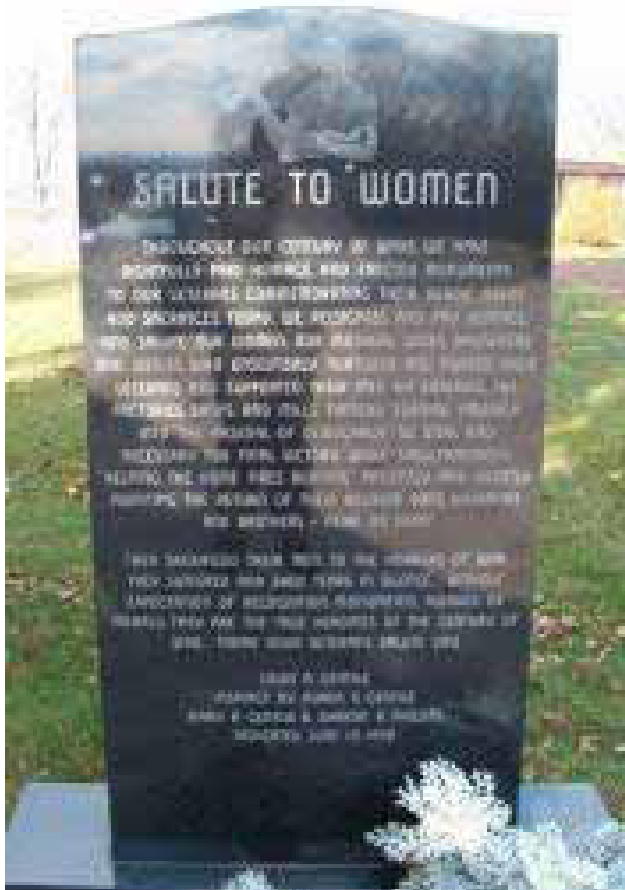


Civil War

Fourth Ward WWII Veterans *Dwight St./East St./Jubilee St./Kulper Park*

This monument is in honor of 725 Veterans of the Fourth Ward who sacrificed their lives in WWII. The Park was officially named Kulper Park in tribute to Chief Warrant Officer Anthony Kulper, the first resident of the Fourth Ward who died in 1942 at the Fall of Corrigedor in the Philippine Islands.





Louis Gentile Salute to Women

Louis Gentile Salute to Women 184 West Main St./Walnut Hill Park/In front of World War I Monument

This Memorial, honoring the women who supported their Veterans, was dedicated by Louis A. Gentile, Director of the City of New Britain's Veterans' Service Center for 13 years, a member of the U.S. Marine Reserve in World War II, and a writer of a nuclear defense plan for New Britain. It was inspired by his wife and other courageous women who supported their Veterans.

Holy Cross WWII / Korean Conflict Eddy Glover Boulevard/Holy Cross Median

Dedicated to veterans from Holy Cross Parish who served in the defense of our country during the Second World War 1941 – 1945 and the Korean Conflict 1950 – 1953.

John F. Kennedy 184 West Main St./Walnut Hill Park

This Monument is dedicated to John Fitzgerald Kennedy, the 35th President of the United States, who was assassinated in Dallas, Texas, on November 22, 1963. While a Lieutenant in the Navy in 1943, his PT boat (patrol torpedo boat called PT-109) was rammed and sunk by a Japanese destroyer and Kennedy, despite serious injuries, led the survivors to safety. Two of his twelve men were killed but the others managed to jump off the boat and cling to a piece of the boat that was afloat. He led them to an island that was several miles away and natives on the island went for help for them. When he returned home, Kennedy was awarded the Navy and Marine Corps Medal for his leadership and courage.

Korean Conflict Main St./West Main St./Central Park

This Memorial is in memory of all of the servicemen who gave their lives in the Korean Conflict.

Brig. Gen. Tadeusz Kosciuszko Burritt St./Clinton St./Kosciuszko Park

BORN 1746 DIED 1817 BRIGADIER GENERAL TADEUSZ KOSCIUSZKO BORN IN POLAND 1746, FOUGHT IN REVOLUTIONARY WAR "ENGINEERS" AT SARATOGA, N.Y., CHARLESTOWN, YORKTOWN. ERECTED FORTIFICATIONS AT WEST POINT. COLONEL AND ADJUTANT TO GEORGE WASHINGTON CONGRESS, IN 1783, FOR HIS SERVICES, MADE HIM A BRIGADIER GENERAL AND EXTENDED HIM FULL CITIZENSHIP OF THE UNITED STATES. "FREEDOM SHRIEKED WHEN KOSCIUSZKO DIED."



Korean Conflict

Captain Brian S. Letendre U.S.MC. *Pendleton Rd./Sunnyslope Dr./
Letendre Park*

This Memorial was dedicated in honor of Capt. Brian S. Letendre, who was killed in action 10 days before his 28th birthday while conducting combat operations against enemy forces in Al Anbar Province, Iraq on May 3, 2006. The highlight of the ceremony included Captain Letendre's 4 year-old son, Dillon, placing his hands into wet concrete at the base of the new monument to preserve the memory of a fallen soldier loved by so many.



Captain Brian S. Letendre U.S.MC.

Major General John Paterson Time Capsule *Main St./West
Main St./Central Park*

MAJ. GEN. JOHN PATERSON BICENTENNIAL TIME CAPSULE FOR THE TRICENTENNIAL NEW BRITAIN, CT 1776-1976-2076. East St./Allen St./Patterson Park In 1957, the General John J. Patterson Memorial was recognized as the official Revolutionary War Memorial of New Britain. General John Patterson was born in New Britain but served with the Continental Army from Boston. He took part in the Battle of Crown Point and Ticonderoga, and shortly after joined General Washington's forces at the crossing of the Delaware and the defeat of the Hessians at Trenton. His father served in the French and Indian War (between 1756 - 1763)

Brig. Gen. Casimir Pulaski *Broad St./Burritt St./Pulaski Park*

This monument honors Brig. General Casimir Pulaski who was born in Poland, fought in many European battles as well as the American Revolution, and provided the American colonists with their first true legion on horseback, giving him the title of "Father of Our Calvary." He arrived in Boston in July of 1777, served next to George Washington, and Congress promoted him to the rank of Brigadier General in command of cavalry on September 15, 1777. In May of 1778, Pulaski began to form an independent cavalry unit that would be known as the Pulaski Legion, which helped defend Charleston, South Carolina against the British. In the fall of 1779, the Pulaski Legion joined other troops in Savannah, Georgia, in trying to retake the City from the British and was wounded and died two days later aboard the American ship WASP.



Brig. Gen. Casimir Pulaski



Israel Putnam Stone/Revolutionary War 184 West Main St./Walnut Hill Park in Loop/Behind Darius Miller Music Shell

GENERAL ISRAEL PUTNAM MEMORIAL, INSCRIPTION READS, "THIS ROCK, CANNOAND TREE ERECTED BY 3RD COMPANY, PUTNAM-PHALANX-DEDICATED TO MAJOR GENERAL ISRAEL PUTNAM OF 1776." Placed on this site on or about July 4, 1876 to commemorate our nation's 100th birthday.

Sherrod E. Skinner Corbin Ave./Lincoln St./Monroe St./Skinner Park

This Memorial, fountain, and flagpole honor Second Lieutenant Sherrod Emerson Skinner, Jr., of Battery F, 2nd Battalion of the United States Marine Corps Reserve, who was killed in action three days before his 23rd birthday in the Korean Conflict on Oct. 26, 1952, when he heroically threw himself on a live hand grenade to protect his men. He and his twin brother, David C. Skinner, had joined the Maine Corps Reserve together. The Congressional Medal of Honor was awarded to him in July 1953 after his death. He was the 35th Marine to be awarded the Nation's highest decoration since the start of the Korean War. He was buried in Arlington National Cemetery in January 1953.

Spanish American War 635 South Main St./Willow Brook Park

Alderman W.H. Judd, Chairman of the Common Council said "The monument, although in the form of a lighthouse, is still designed as a monument, and the committee selected this type of memorial because under the shadows of the Morro Castle light, the Maine was sunk, an act which aroused the whole country and caused the declaration of war by congress. We believe the bridge built in connection with the memorial will be used by thousands of people and as they cross the bridge they will be reminded of the days of '98 and of the valor and the patriotism of the boys who volunteered to help an oppressed people. As the years go by and a new generation comes, as they cross the bridge and are reminded of thee days of '98, they will ask why the Spanish-American War was fought." New Britain VOLUNTEERS IN THE SP. AM., PHILIPPINE Insurrection and China Relief Expedition April 1, 1898 - July 4, 1902

George S. Sulliman Stanley St./Eddy Glover Blvd

Dedicated to Marine Lieut. George S. Sulliman and other Belvidere youths. He was killed in combat in Korea on April 24 at the age of 24 while fighting with the 1st Marine Division. The dead Marine's brother, New Britain and speak at the Dedication Program. The Memorial also honors P.F.C. Leland R. Kahrman, another Belvidere youth, killed in action in Korea.

Henry J. Szczesny

A plaque is on a New Britain Parking Garage dedicating it to 1st Sgt. Henry J. Szczesny, who was killed in action on January 22, 1945 in Luzon in the Philippine Islands in World War II.



Spanish American War

TGM *Booth St./Smith St./TGM Park*

The T.G.M. Memorial is named in honor of Stanley T. Todzia, Edward J. Giramonti and Francis J. Majewski, all who were residents of the northwestern part of New Britain, were killed in World War II, and were members of the Northwestern Athletic Club, now known as T.G. M. Post Northwestern Veterans Club.

Veterans' Section of Fairview Cemetery *120 Smalley St./Section 18*

Beside the main Memorial dedicated to all Veterans who have died, there is also a Memorial to Lorenzo Deming, a Civil War recipient of the Congressional Medal of Honor, who enlisted in the Navy in New Britain, Connecticut, in September of 1864. He died in February of 1865 at the age of 21 and his body was put into a mass grave in the Salisbury National Cemetery near a Confederate prison camp in Salibury, North Carolina. While in the U.S. Navy, Deming was one of seven members of the crew of the U.S. Picket Boat No.1 awarded the Medal of Honor for personal courage in action against the Albemarle, a Confederate ironclad ship. Also buried in the Cemetery are other Veterans from the Civil and Revolutionary War, as well as Albert Remington, who served in the Little Big Horn Expedition (of Custer's Last Stand in 1876).

Vietnam War *Main St./West Main St./Central Park*

This Memorial is dedicated to the Veterans who lost their lives in Vietnam.

Vietnam War *635 South Main Street/Willow Brook Park/Veterans Memorial Stadium*

This Memorial is dedicated to the Veterans who lost their lives in Vietnam.



Veterans' Section of Fairview Cemetery



Vietnam War (Central Park)





Vietnam War (Willow Brook Park)

Vietnam War *41 Veterans' Drive/VFW*

This Memorial to Vietnam Veterans was originally located across the street at Willow Brook Park. A newer Memorial containing the same names was dedicated at Willow Brook Park to replace it and then this one was moved across the street to be in front of the VFW Hall.

George Washington/Bicentennial *Eddy Glover Blvd./Commonwealth Ave. Green*

This plaque is in commemoration of the Bi-Centennial Anniversary of the birth of George Washington, the first President of the United States, and dedicates trees in his honor. 82 organizations participated in this Dedication. Washington was Commander in Chief of the Continental Army during the American Revolution and with the aid of French allies, forced the surrender of Cornwallis at Yorktown in 1781.



World War I

WWI *184 West Main St./Walnut Hill Park/Top of the hill*

This Memorial is in the form of a shaft, towers ninety feet into the sky on the top of Walnut Hill, is visible for miles around, and honors 123 servicemen who gave their lives in World War I. Symbolism runs throughout the design: the garlands around the foot of the shaft are laurel and oak, one signifying victory, the other strength and courage; the wreath of ivy around the corner-stone tablet denotes constancy; at the four corners are the emblems of the Army, Navy, Red Cross and Industry and Agriculture. Individual tributes are inscribed around the Memorial, noting the name, rank, place of death of the men who honored their City.

WWII *Main St./West Main St./Central Park*

A temporary Memorial to the living and to 10, 254 Blue Star and 243 Gold Star Veterans of World War II had been dedicated before this on October 28, 1945. This monument replaced the 1945 Memorial.

Chapter 9: Public Art and Monuments

Recent installations of public art include “Wall Drawing #1105” by Sol LeWitt, and the “Home” Sculpture by Craig M. Frederick.

These monuments and public art installations provide a rich basis for expanding the public art concept through this project. The Master Plan highlights locations throughout the downtown for both permanent and rotating art work (right) to enhance New Britain’s existing public art.

“Home” Sculpture at Main Street



**Wall Drawing #1105 at
Columbus Boulevard**



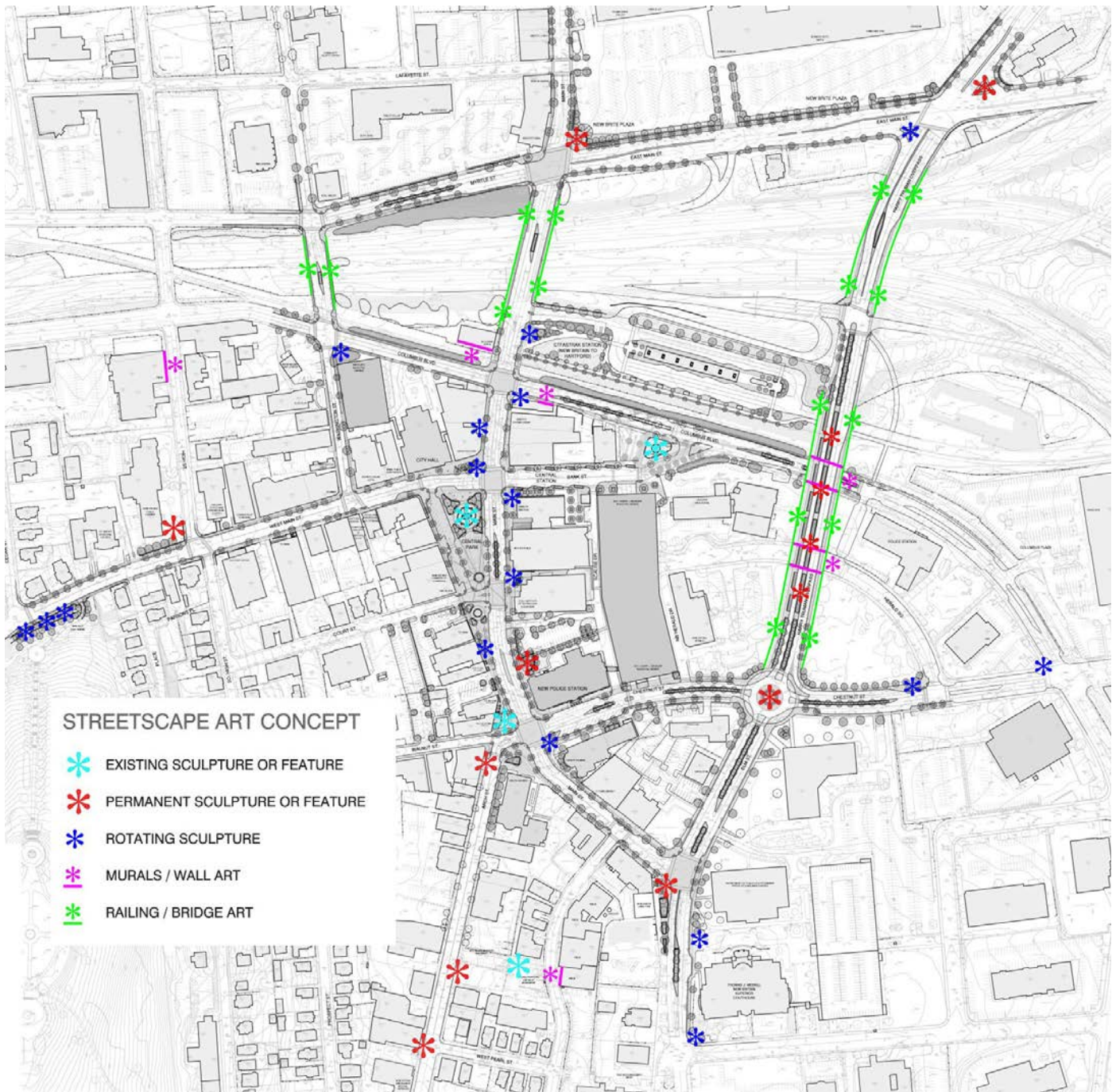
**Wall mural at the New Britain
YWCA at Glen Street**



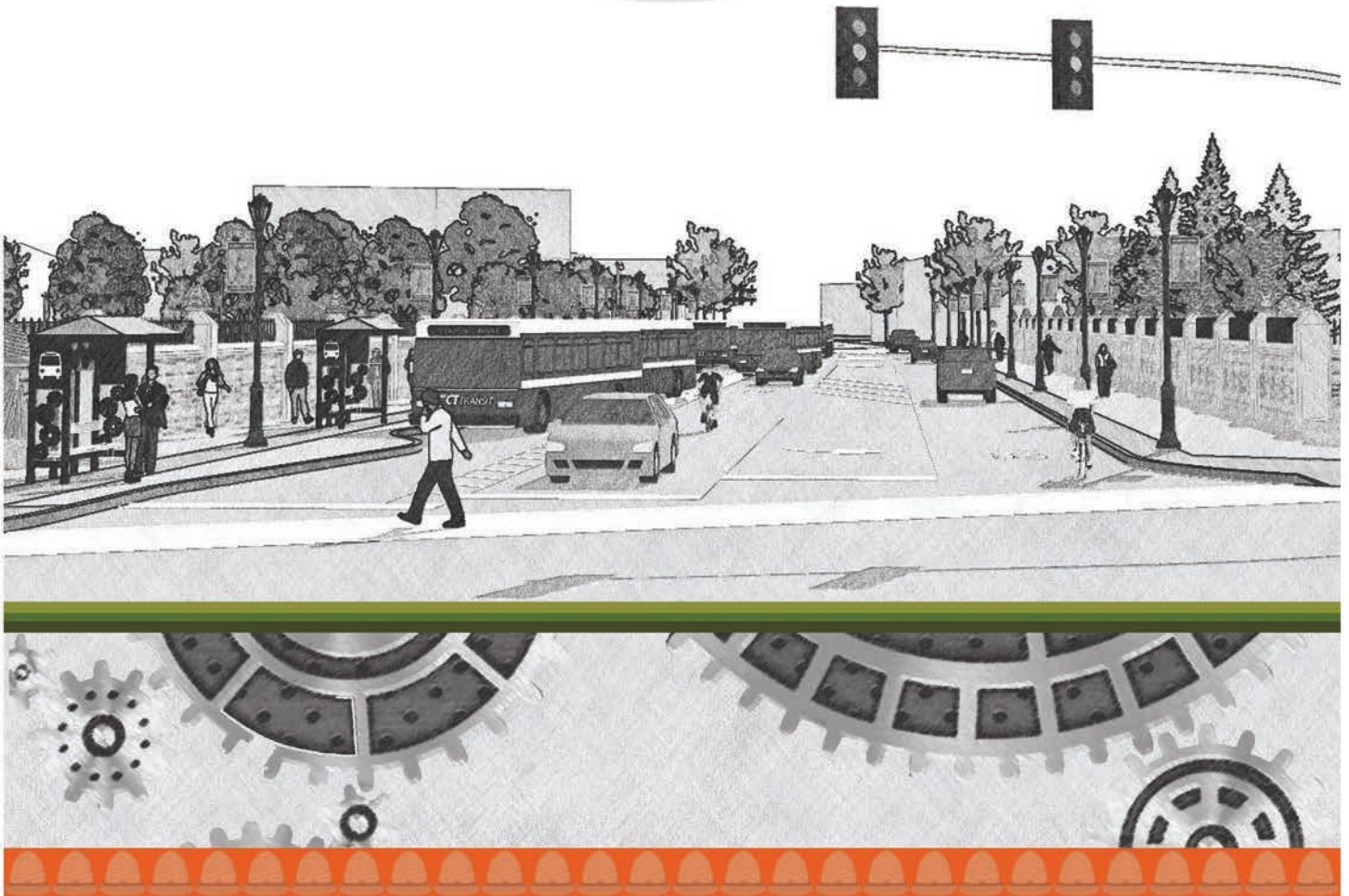
**Wall mosaic at the New Britain
YMCA at High Street**



Public Art



Chapter 10: Bicycle Connectivity



Bicycle travel plays an important role in transportation and is an essential component of planning Complete Streets. Bicycles not only provide an alternative mode to motorized transportation, but are rapidly growing in popularity due to environmental advantages, convenience, energy efficiency, health benefits, and cost effectiveness. It is also a recreational activity that an entire family can enjoy. As more and more people ride bicycles, integrating bike routes into the roadway environment is becoming a necessity.

The CTfastrak project includes a five mile multi-use trail for pedestrians and cyclists. With the completion of CTfastrak and the multi-use trail, New Britain will have a more convenient, viable alternative to driving their automobiles to destinations along the CTfastrak corridor. At the CTfastrak stations, bicyclists will have the option of leaving their bicycles in a secured bike rack, bringing their bicycles with them to complete their trip at the other end of the busway, or riding the CTfastrak multi-use trail that leads into Newington.

The primary challenge for New Britain is to offer the option of biking to parks, school, housing, employment centers, and shopping, as well as providing linkages to the bus system in a safe and convenient fashion. While New Britain does have a very well-developed and maintained sidewalk system, a bicycling network has never been developed (although a plan was produced in 1974 by the City Plan Commission). With the current resurgence in the popularity of biking, the time is right to incorporate this relatively low cost mode of transportation into New Britain's transportation infrastructure and complete the streets. To this end, New Britain recently completed a ***Bicycle Connectivity and Traffic Calming Study***, as a first step in the development of a comprehensive bicycle network for the City. In doing so, New Britain joins the ranks of other cities, including Hartford, South Windsor, Bridgeport, Plainville and Norwalk which are presently developing or studying bicycling networks.

New Britain's ***Bicycle Connectivity Plan*** envisions a multi-phase network utilizing the existing infrastructure without having to add any additional impervious surfaces. State roads have been avoided to the greatest extent possible to preclude long delays in permitting and approvals. The proposed network is comprised of a combination of dedicated bicycle lanes and sharrows. Where adequate pavement width exists, the dedicated bike lane is the preferred alternative. Bicycle specific signage and road markings will delineate the network.

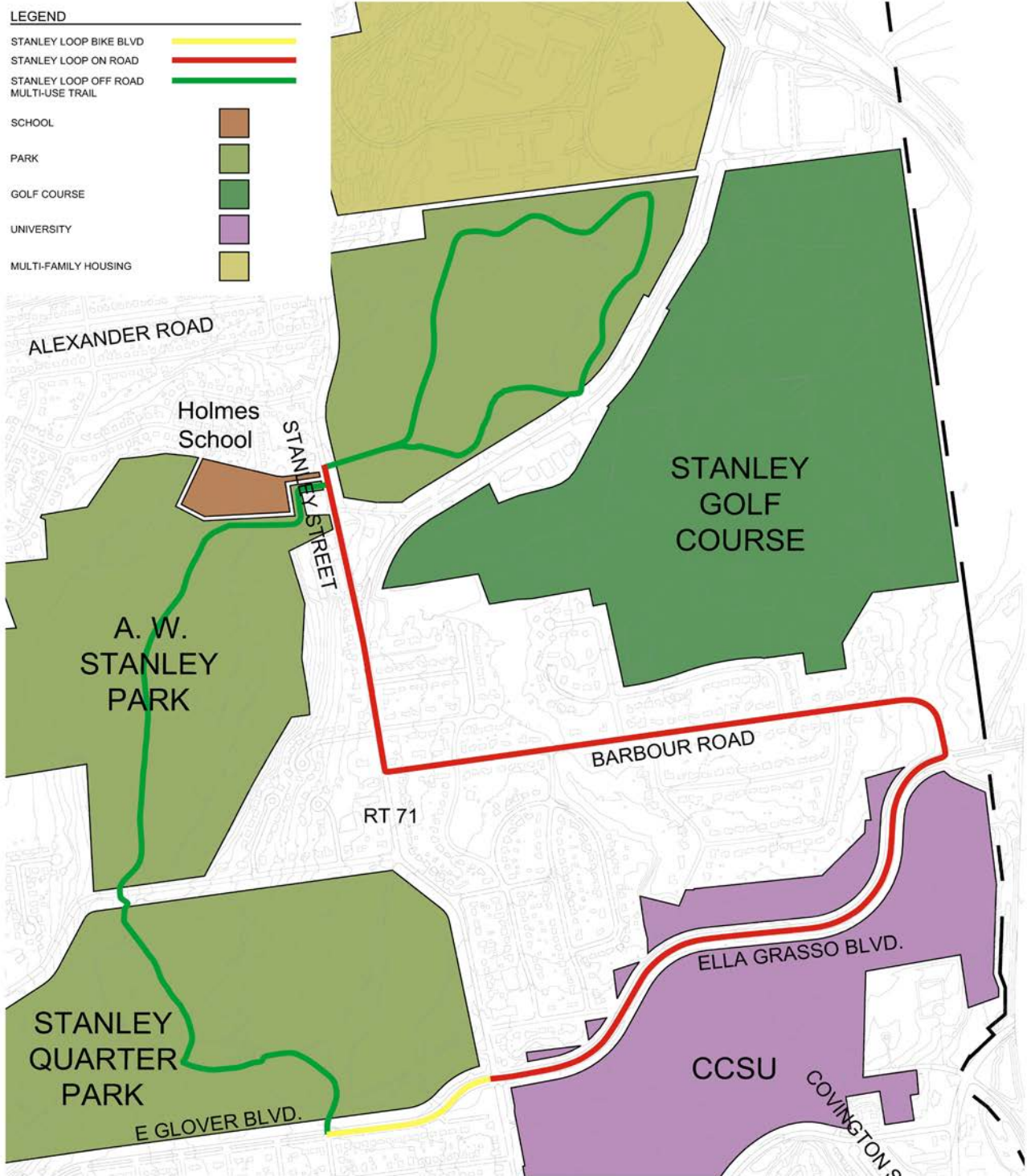
Eddie Glover Boulevard presents an opportunity to create an exciting new recreational amenity for New Britain. At the eastern end of the boulevard the north lanes, which abut Stanley Quarter Park, can be converted to a multi-use trail segment for bicycles and pedestrians. This segment of trail would connect to existing trails in Stanley Quarter Park and eventually to the proposed multi-use trail in A.W. Stanley Park.

The proposed multi-use trail through A.W. Stanley Park/Stanley Quarter Park will connect to the proposed multi-use portion of Eddie Glover Boulevard to provide a 3.5-mile loop. This trail will also make it possible to bicycle 1.5 miles through the northern part of the City, free of automobile traffic.

As a result of the ***Bicycle Connectivity Plan***, the primary goal of connecting parks, housing, Central Connecticut State University and employment centers to local bus service and CTfastrak will be achieved. A secondary goal of enhanced, safe recreational bicycling opportunities will be achieved as well. The City hopes that its Bicycle Connectivity Plan will spur efforts in adjoining communities to make connections at city borders. New Britain officials will meet with those in surrounding communities in the coming years to help facilitate a regional bicycle network.

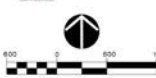


Bicycle Connectivity Plan - Stanley Loop



Stanley Loop

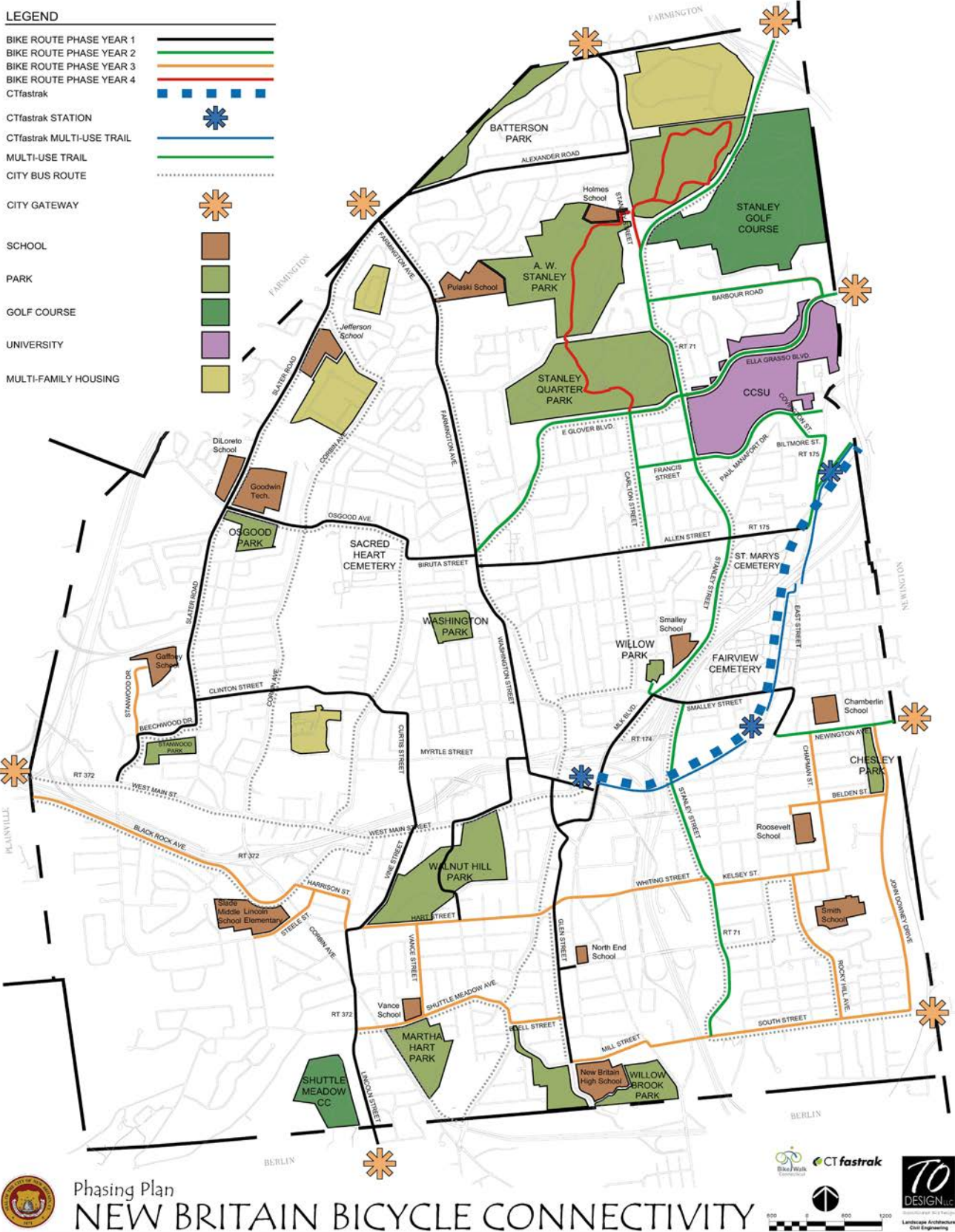
NEW BRITAIN BICYCLE CONNECTIVITY



TO DESIGN
Landscape Architecture
Civil Engineering



Bicycle Connectivity Phasing Plan



New Britain was proud to participate in the National Bike to Work Day. On May 17, 2013, The Central Connecticut Regional Planning Agency (CCRPA), and the City of New Britain used the event to launch the City's Bike Connectivity Plan.



*Join us to celebrate National Bike to Work Day and
the launch of New Britain's city-wide Bike Connectivity Plan!*

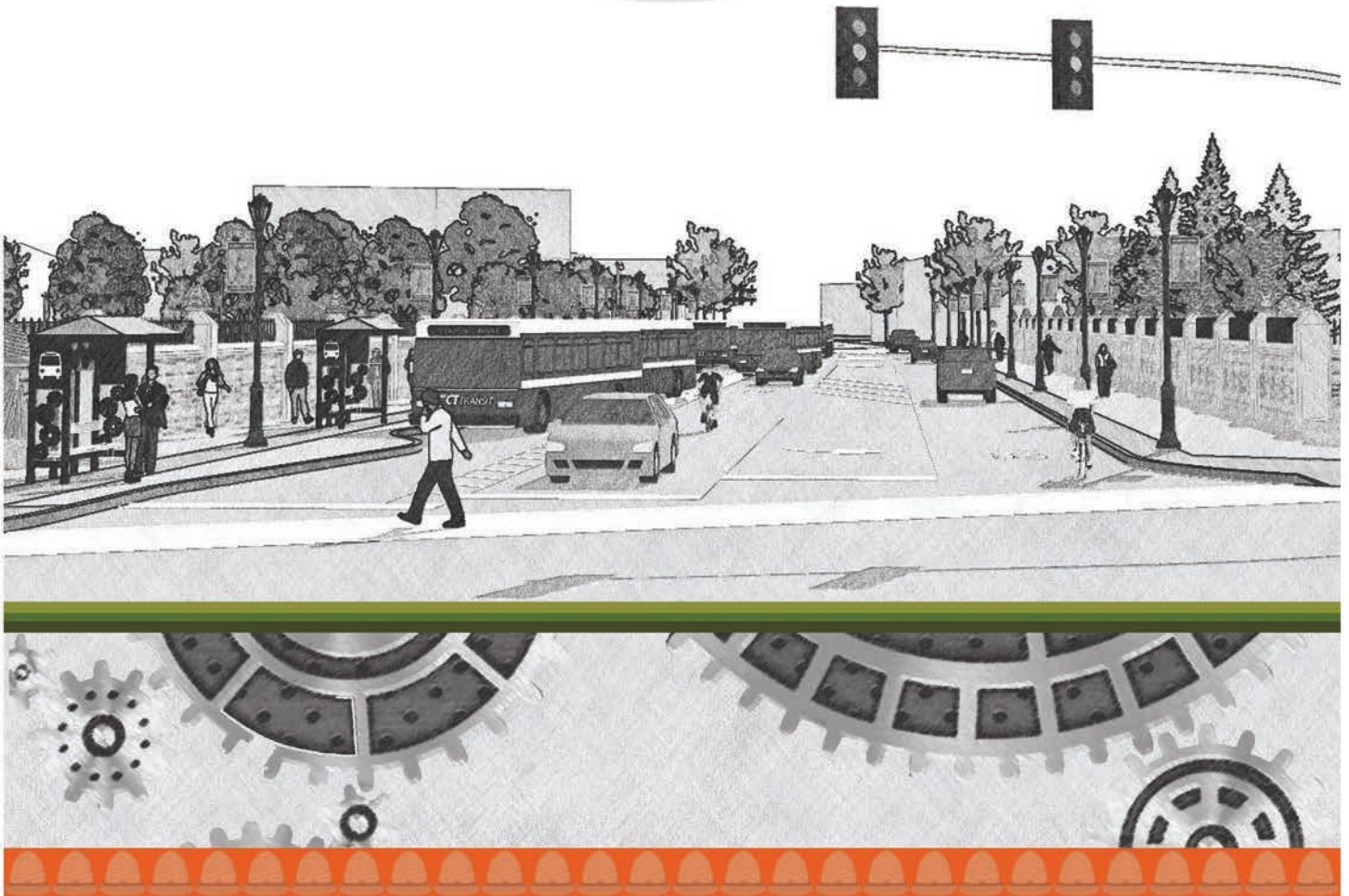
*Breakfast begins at 7:00am
Program at 8:00am*

Sponsored by the Central Connecticut Regional Planning Agency and the City of New Britain
Contact Abby St. Peter at (860) 589-7820, or abby@ccrpa.org for more information



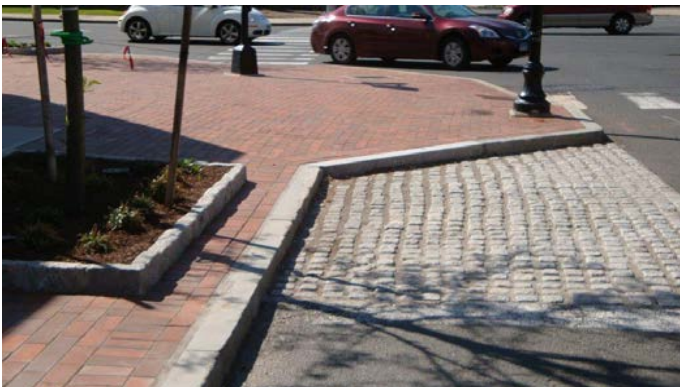


Chapter 11: Palette and Standards



Chapter 11: Palette and Standards

Based on the planning and design work in the Master Plan, design standards were developed to provide the City with a palette of design elements and materials to take placemaking from planning to implementation, and to provide a consistent guide for future development in the downtown core. This chapter contains the design standards which have been defined, including the following typical items: sidewalks, sidewalk pavers, curbing, bike lanes, crosswalks, and amenities such as furnishings, decorative lighting, street tree types, and signage. In the case of some elements, decisions have not been made for a specific standard. In these cases, options are shown for consideration in the future.



Sidewalk Treatments

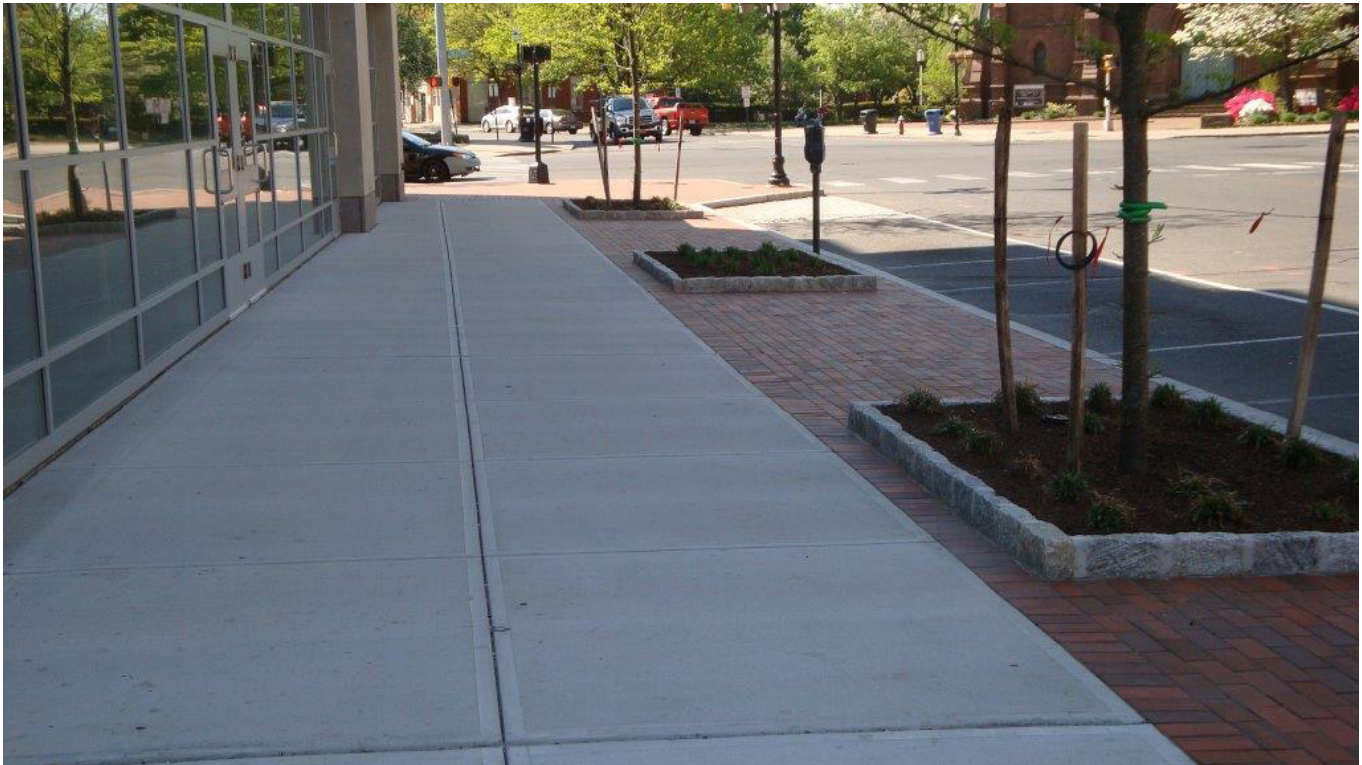
Pavers

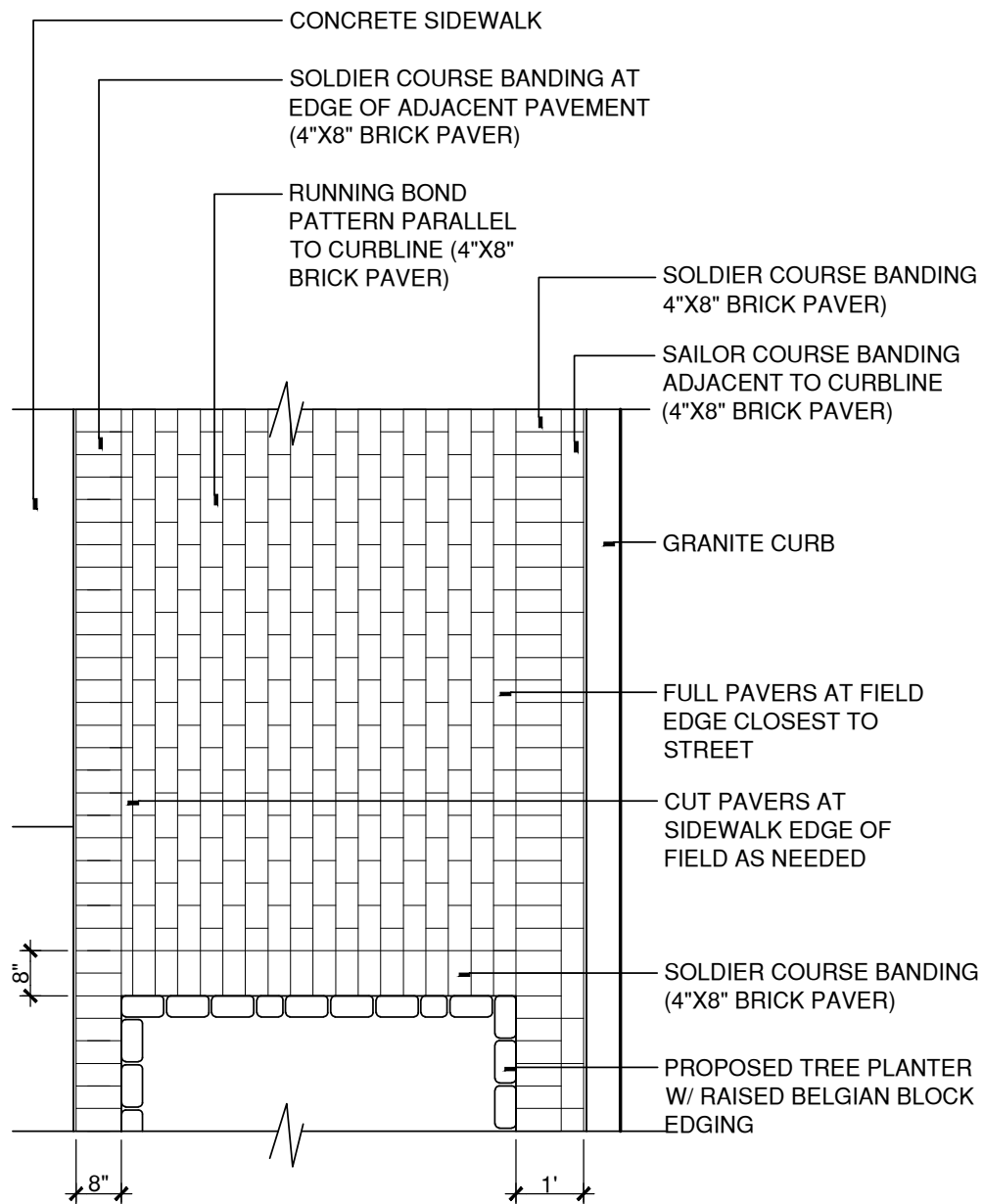
At the beginning of the master planning process, several different pavement styles and patterns were examined and discussed. A simple, rich, traditional look that also wears well was desired. For the downtown area, traditional brick patterns and colors - Whitacre Greer Brick Paver Blend no. 32 Antique and no. 33 Dark Antique - were selected. The beauty and richness of this brick palette complements the downtown architecture and provides visual interest to the pedestrian spaces. For other areas, such as Broad Street, stamped concrete to match existing treatment is to be used.

Whitacre Greer Brick Paver Blend
(60% - no. 36 Red Sunset; 20%
no. 32 Antique; and 20% no. 33 Dark Antique)



Cast-in-place Concrete and Brick Paver Sidewalk

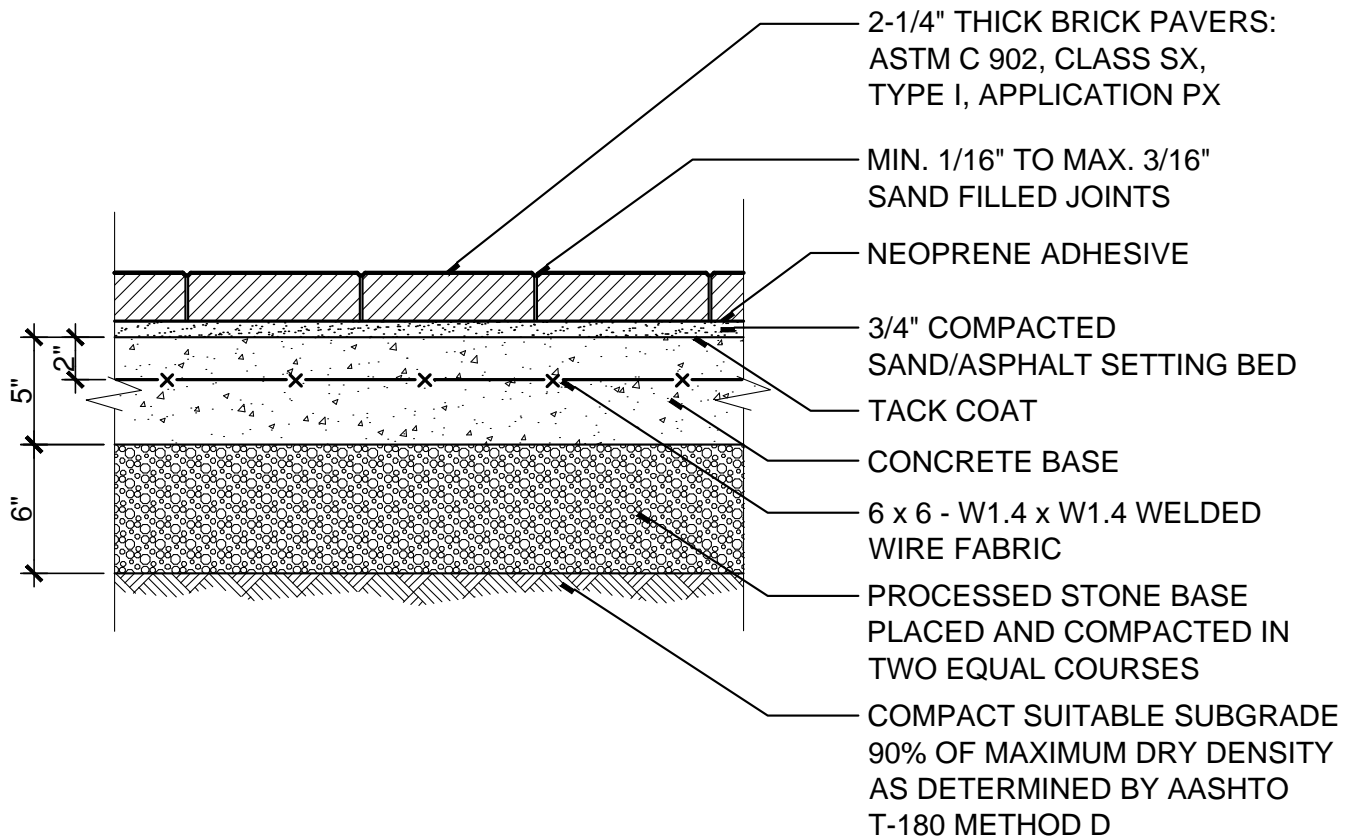




Sidewalks will be a combination of cast-in-place concrete and brick pavers. The concrete sidewalks will have a broom finish and scoring perpendicular to the walk length. Brick pavers will be used between the concrete sidewalk and street edge, and provide visual richness and improved pedestrian scale.

The brick paver strip encompasses the space along the street edge that includes the tree planters. The pattern for this strip is running bond running parallel to the curb and bounded by a soldier and a sailor course on the street side and a soldier course on the walk side.

Brick Paver Sidewalk Section

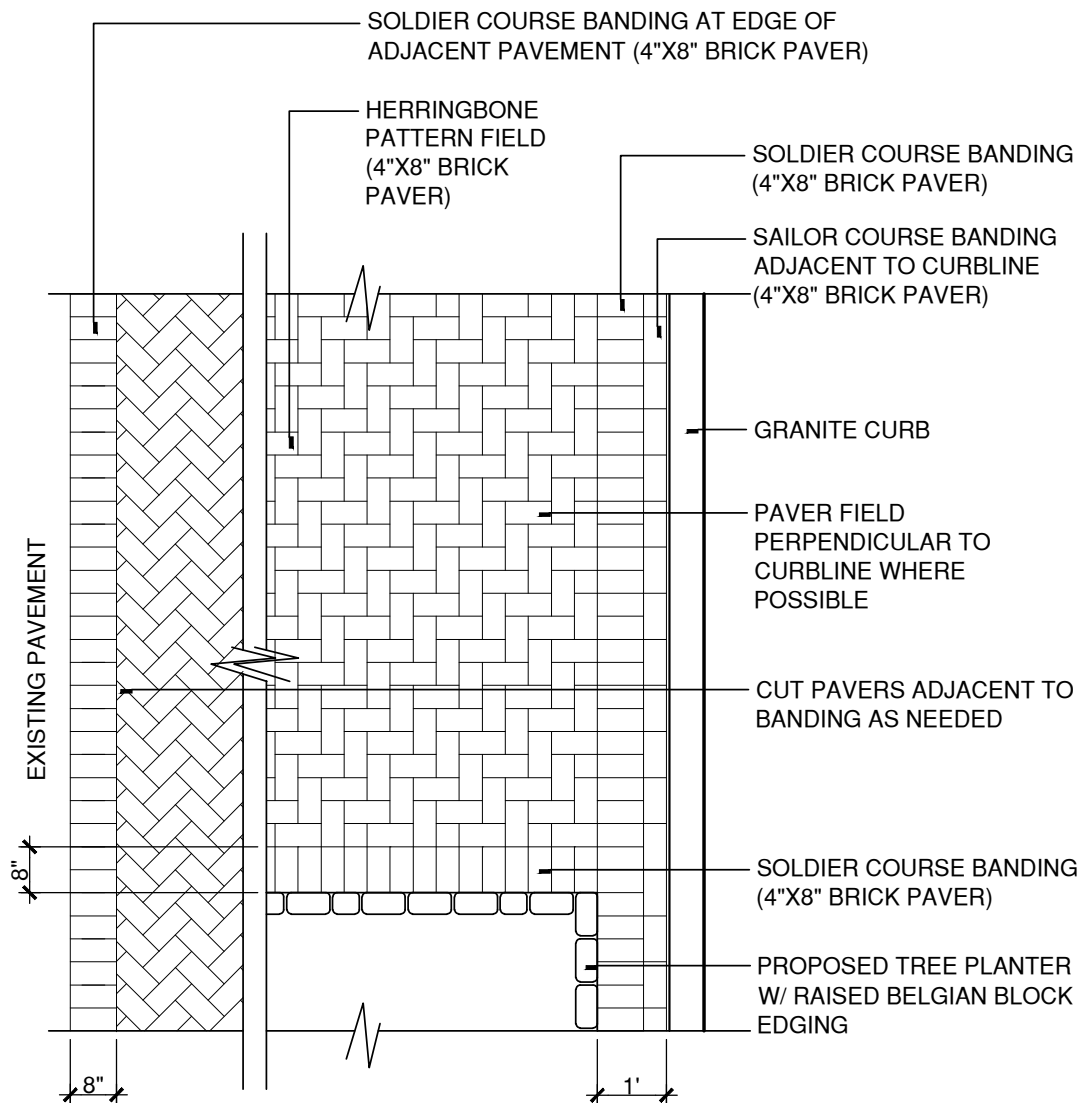


All brick pavement will be installed on a concrete base with asphalt setting bed, and have sand-filled joints. The concrete base will provide stability and longevity for the sidewalks. Keeping the pavers stable and flat will help to avoid settlement and tripping hazards, as well as minimize damage to brick from snow removal practices.



Brick Paver Plaza

In key urban spaces and outdoor plazas, brick pavers will replace the concrete sidewalks, with bricks infilling and running up to the building facades. Pavement patterns for these areas are discretionary and will be determined on a case-by-case basis.

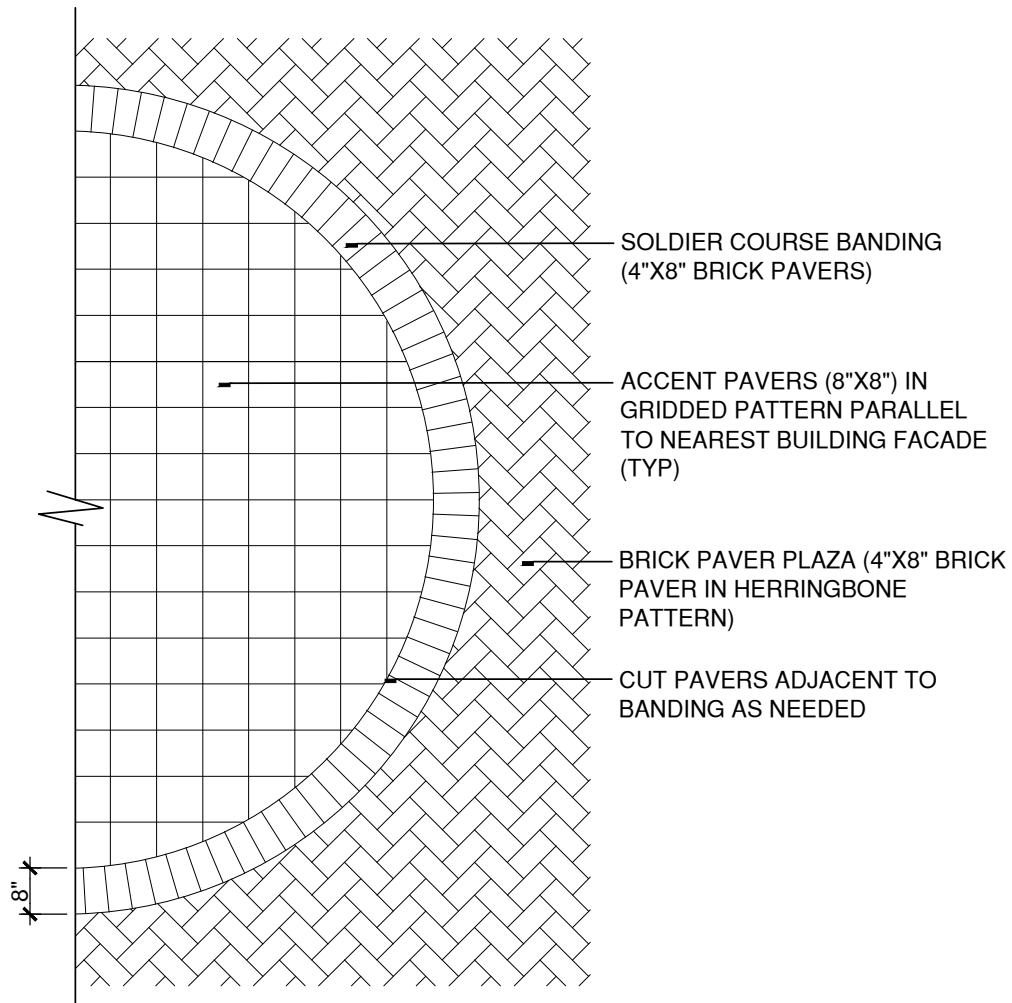


Brick Paver Accent



Brick Paver Accent

Accent areas in brick provide visual interest around planters, fountains, public art and other special features. These will be decided on a case-by-case basis.



Cobble Pavement

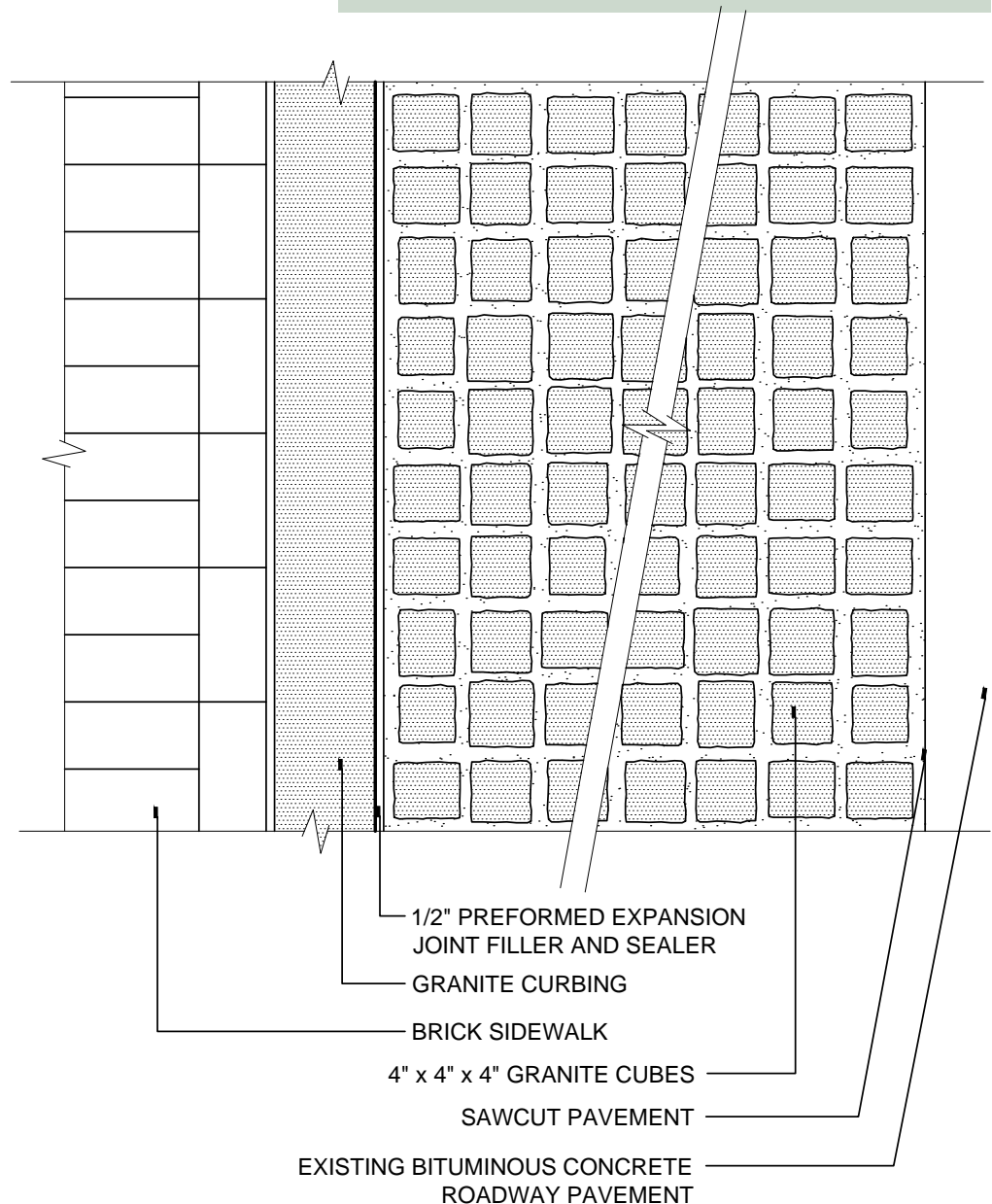


Cobbles

Accent areas of cobble pavement will be used to demarcate the ends of on-street parallel parking. The cobbles complement the granite curbing and provide visual interest within the roadway.

Cobbles are to be 4"x4"x4" granite cobble paving stones set on a concrete base. The cobbles are to be installed in a gridded pattern with 3/4" mortared joints.

Granite Cobble Pavers

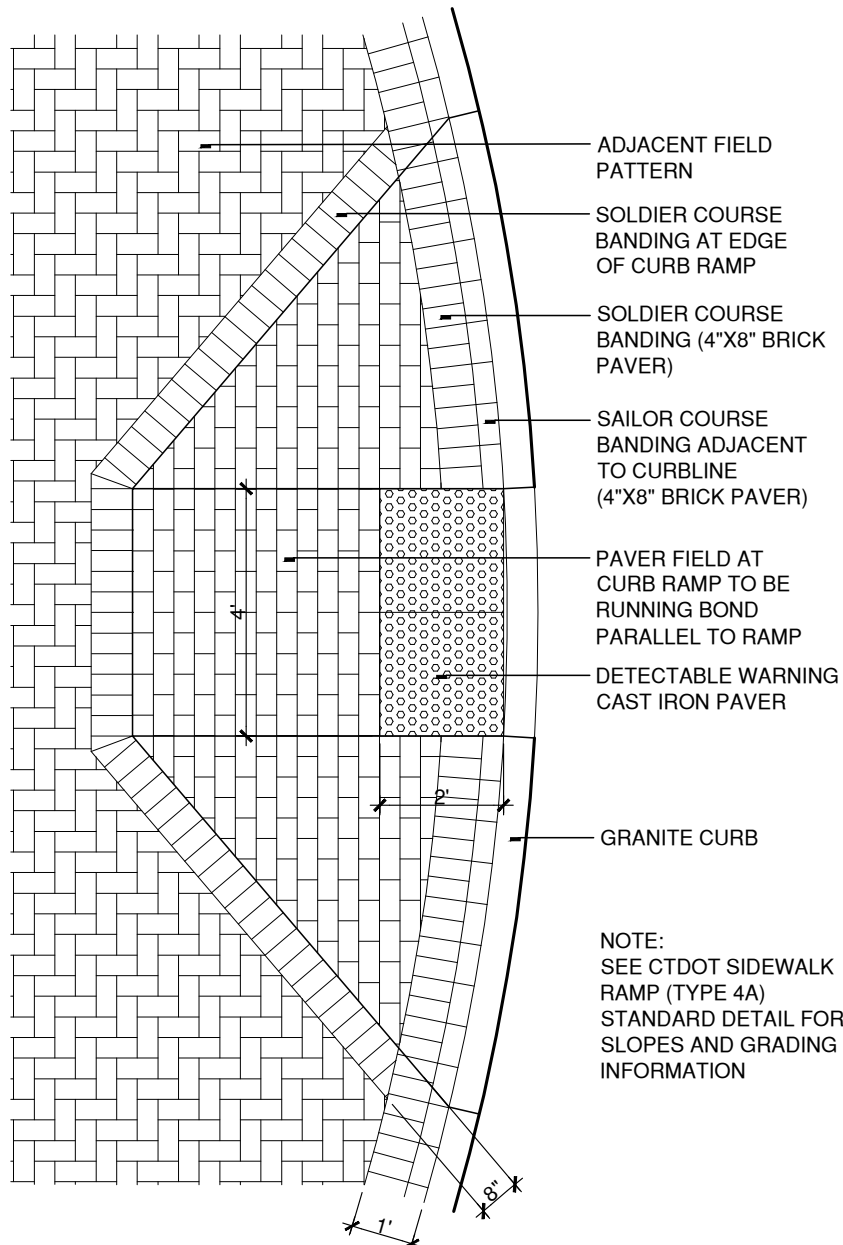


Sidewalk Ramp



At street intersections in the downtown area, the entire sidewalk at the corners of each street will be paved in brick. The bricks in these areas will be laid with the soldier and sailor course banding along the curb, and soldier course adjacent to the building and concrete walks. The herringbone pattern of the sidewalk helps to demarcate the intersection while accommodating the change in direction of sidewalks and the running bond paver strips.

Sidewalk ramp designs will be reviewed with the Handicapped Advocate to meet ADA requirements.

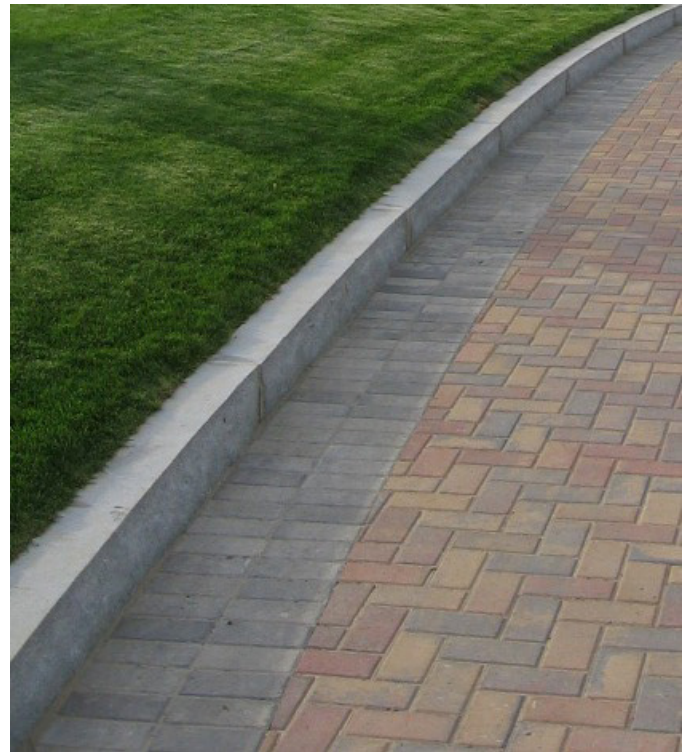


Curbs

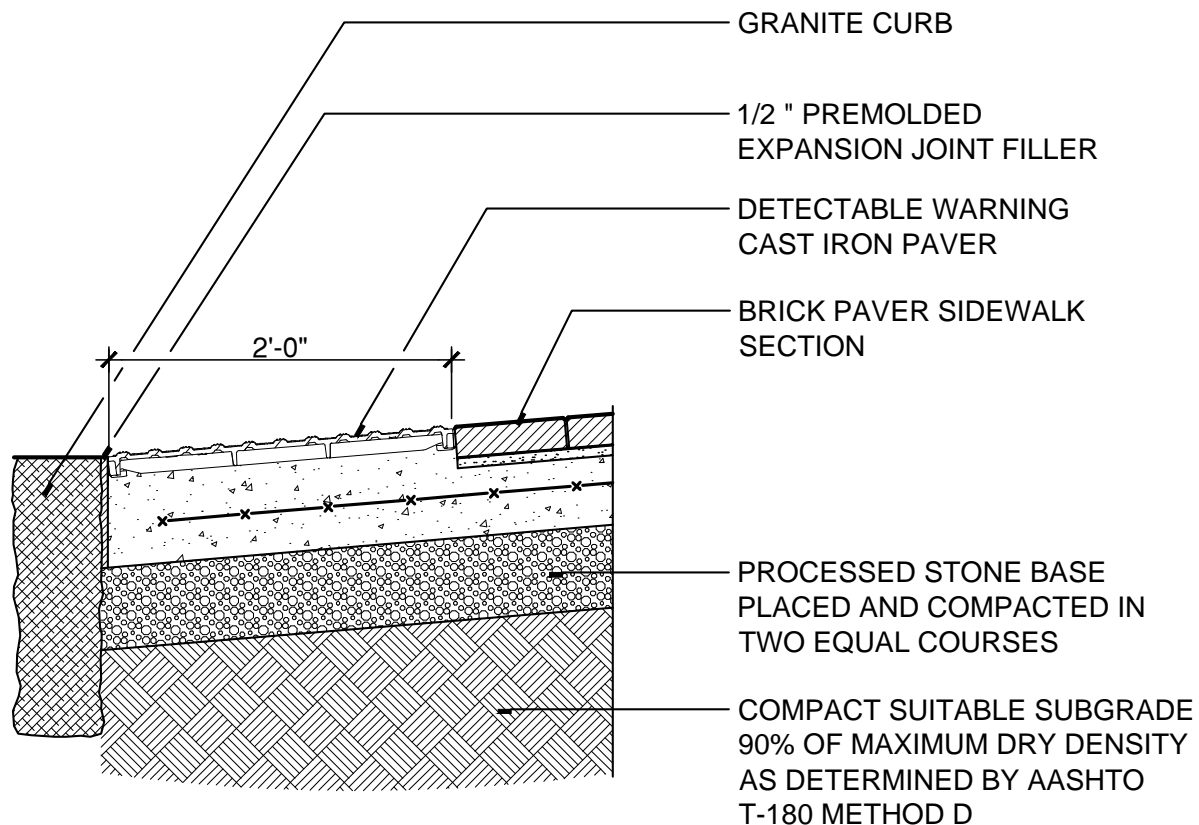
The preferred material for all street, parking lot and driveway curbs in the downtown area is local New England-quarried granite. Granite curbing is a durable material, and historically has been used throughout the downtown. Curbs will be 6" wide and 18" deep, with a 6" reveal. Granite curbs are to have a split face and sawn top.

In areas outside of the downtown with lower visibility and where budget constraints exist, precast concrete curbs may be used. In these locations, concrete curbs will also be 6" wide and have a 6" reveal. Use of cast in place concrete and bituminous concrete curbs are to be avoided.

Durable Granite Curb



Sidewalk Ramp Section



StreetPrint Stamped Asphalt



Crosswalks

Several options were examined for crosswalks - including using a decorative materials such as brick, a manufactured product such as StreetPrint, (left) or white epoxy paint (below). While paint was decided for the initial crosswalk locations downtown, as the Master Plan is implemented, other crosswalk material options will be considered.

City standard pedestrian and street light fixtures should be located in areas adjacent to crosswalks to provide ample illumination to make crossing pedestrians visible to drivers at night. The location of lights should work into the overall layout and rhythm of lighting along the street and pedestrian way.

White Epoxy Painted Crosswalk



Pedestrian Lighting

Pedestrian lights should reinforce the overall structure of streets, walkways and public spaces. Lights should be uniformly spaced to provide necessary illumination levels for safety, security and/or convenience. To the extent possible, lights should be spaced far enough apart to avoid visual clutter during the day and over lit areas at night. Light levels in the downtown should be designed to conform to IES (Illuminating Engineering Society) Standards.

Downtown

The City's standard for a pedestrian post top style light fixture in the downtown for use along sidewalks, in plazas and in public urban spaces should match the currently used Acorn fixture manufactured by Cooper Lighting and provided by Connecticut Light & Power (below left). A premium decorative pole in black finish is to be used for all pedestrian style fixtures. Decorative poles are manufactured by Union Metal and are offered in 12 or 14 foot heights (models nos. 447971 and 447970). Poles should be specified to allow for the addition of decorative banners and/or flowering pots. These fixtures should be used throughout the downtown for continuity.

Broad Street and Neighborhoods

In the Broad Street neighborhood, the standard for a pedestrian post top style light fixture is the Teardrop fixture and decorative arm (model no. HFH2610) as manufactured by Philips/Hadco in black finish (below right). Fixtures are to be mounted on decorative poles by Philips/Hadco (model no. P4465) in black finish. This fixture may be considered for use in other neighborhoods outside the immediate downtown for additional continuity city-wide.

City Standard Light Fixture



Standard Light Fixture for Broad Street



In Central Park Square, a historically-inspired globe fixture is to be used for pedestrian lighting. The fixture is reminiscent of the historical globe fixtures that were original to the park. Globe fixtures currently exist in the park as part of the Civil War Monument. These fixtures are to be set on decorative poles with clusters of five globes per pole. Globe lights are to be the Georgetown fixture (model no. G18/508P) with decorative straight-fluted pole and Fort Collins base (model no. 8200), as manufactured by Sternberg Lighting. All components are to be of black finish.

Sternberg Georgetown Fixture



Historic Central Park Globe Light Fixture



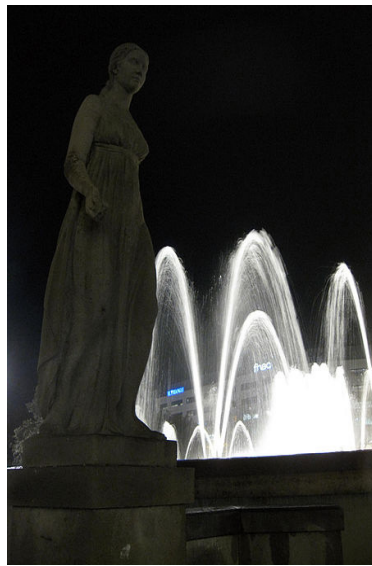
Globe Fixtures at Civil War Monument



Special Lighting

As the master plan is implemented, opportunities to enhance the built environment through special lighting should be explored. This lighting would supplement new pedestrian lighting, and would create a memorable setting for experiencing New Britain's public art, sculpture and buildings.

The images below show how fountains, entryways, buildings and sculpture can provide a rich, unique visual interest at dusk or at night.



Street Trees

Street trees provide a multitude of functions in urban environments. They provide shade along sidewalks, streets and in urban spaces; visual interest and softening of architecture; spatial organization of streets, plazas and parks; lend a human scale to streets, and provide environmental benefits.

The incorporation of a street tree program is a key component of most successful urban streetscapes. Street trees will be assessed on an area by area basis as the Master Plan is implemented. One of the nicest areas in downtown that reflects an appropriate scale of the street environment, including sidewalk width, scale of buildings, site amenities and street trees is the lower end of Main Street between Chestnut and Elm Street. This area was considered as inspiration for the approach to the future development of the downtown streetscape.

During the master plan process, trees in the study area were visually assessed and many of them are in good condition. Honey Locusts were initially used in the downtown. As many of these trees are in good condition, it made sense to build on this inventory and continue adding this species up Main Street. As trees are added with each phase of master plan implementation, care should be given to species selection. Repetition of species for cohesiveness needs to be balanced with diversity for interest and health. The list right provides trees for consideration that are easily adaptable to urban conditions.

Maintenance is a key consideration for the street tree program. Existing and new street trees should not have limbs within 6 to 7 feet of the sidewalk grade. Low limbs present obstacles for a clear pedestrian pathway and can be a liability for the City. Keeping the pedestrian way free and clear of low hanging branches provides for a pleasant pedestrian experience, while giving shade and canopy along the pedestrian route.

Street trees of similar species provide visual character and soften architecture



Main Street illustrates how shade trees help to bring a human scale to a streetscape



Street Trees:

The desired minimum caliper of new street trees is 4 – 4 ½". Trees of this size have more visual impact and are less susceptible to damage and vandalism.

Botanical Name	Common Name
Acer rubrum 'Red Sunset'	Red Sunset Maple
Gleditsia triacanthos var. inermis 'Shademaster'	Shademaster Honeylocust
Gleditsia triacanthos var. inermis 'Halka'	Halka Honeylocust
Platanus x acerfolia 'Bloodgood'	Bloodgood London Planetree
Prunus sargentii	Sargent Cherry
Pyrus calleryana 'Aristocrat'	Aristocrat Pear
Quercus bicolor	Swamp White Oak
Quercus rubra	Northern Red Oak
Tilia cordata 'Greenspire'	Greenspire Little Leaf Linden
Ulmus parvifolia 'Allee'	Chinese Allee Elm
Zelkova serrata 'Greenvase'	Greenvase Japanese Zelkova

Columnar Street Trees:

The desired minimum caliper of new street trees is 4 – 4 ½". Trees of this size have more visual impact and are less susceptible to damage and vandalism.

Botanical Name	Common Name
Acer rubrum 'Armstrong'	Armstrong Red Maple
Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo
Prunus sargentii 'Columnare'	Columnar Sargent Cherry
Pyrus calleryana 'Chanticleer'	Chanticleer Pear



Street Tree Planters

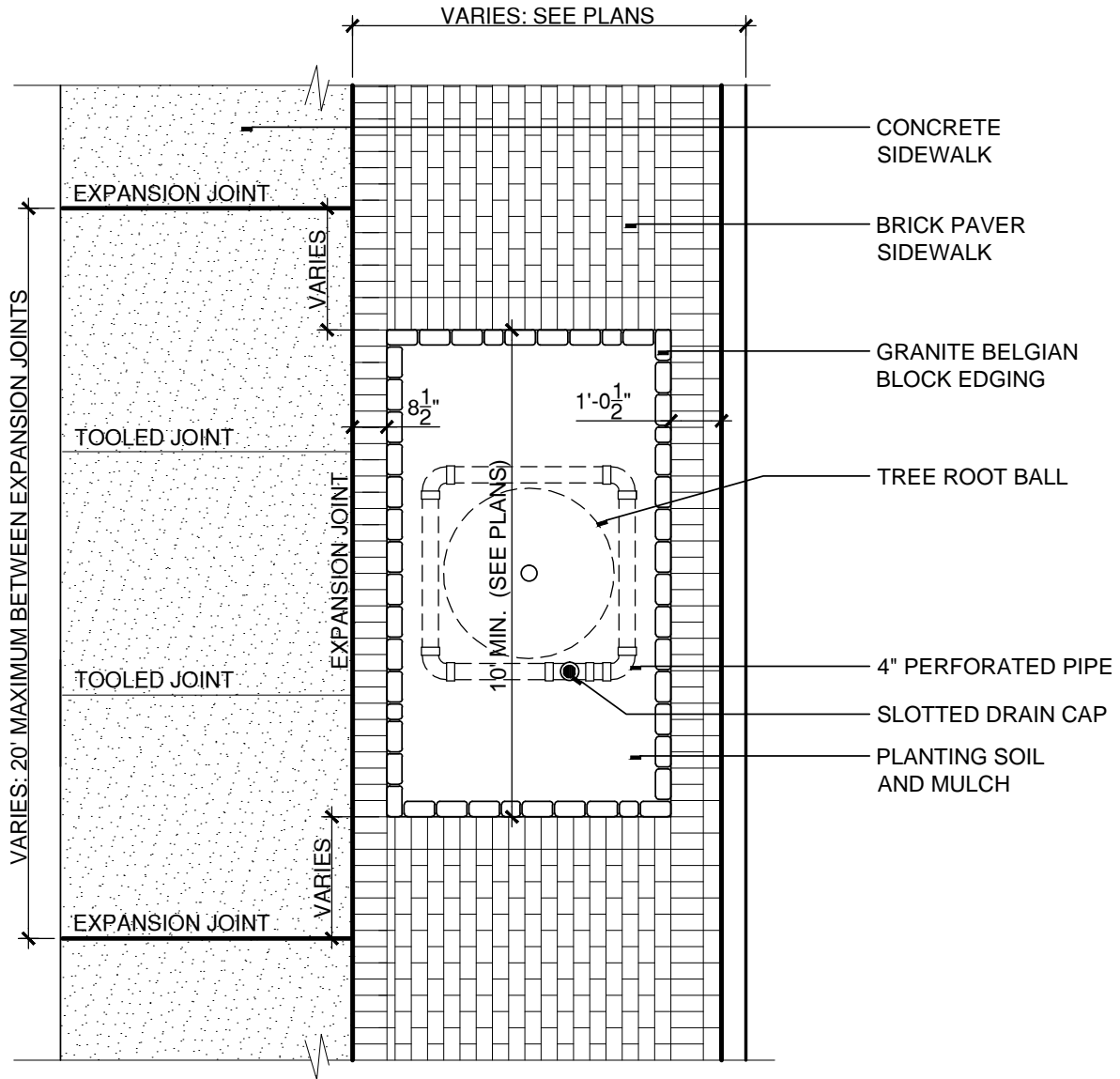
Downtown

All new street trees in the downtown are to have a raised planter around them. These planters typically measure 6 feet x 10 feet with the longer dimension running parallel to the street curb. Planters are to be raised 6" from sidewalk elevation to provide a clearly defined planted area and avoid the potential for tripping. Planters will be constructed of jumbo granite Belgium block edging set in mortar. Planters will be filled with an appropriate planting soil and planted with groundcover or perennials. A 4" perforated pipe with filter sleeve will be provided in each planter to allow for supplemental irrigation as needed.

Tree grates should be avoided in the downtown. Over time, settlement and/or lifting of grates become problematic and contribute to an uneven, unsafe walking environment. Tree grates also can damage street trees over time if not properly maintained.

Belgian Block Planter at New Tree

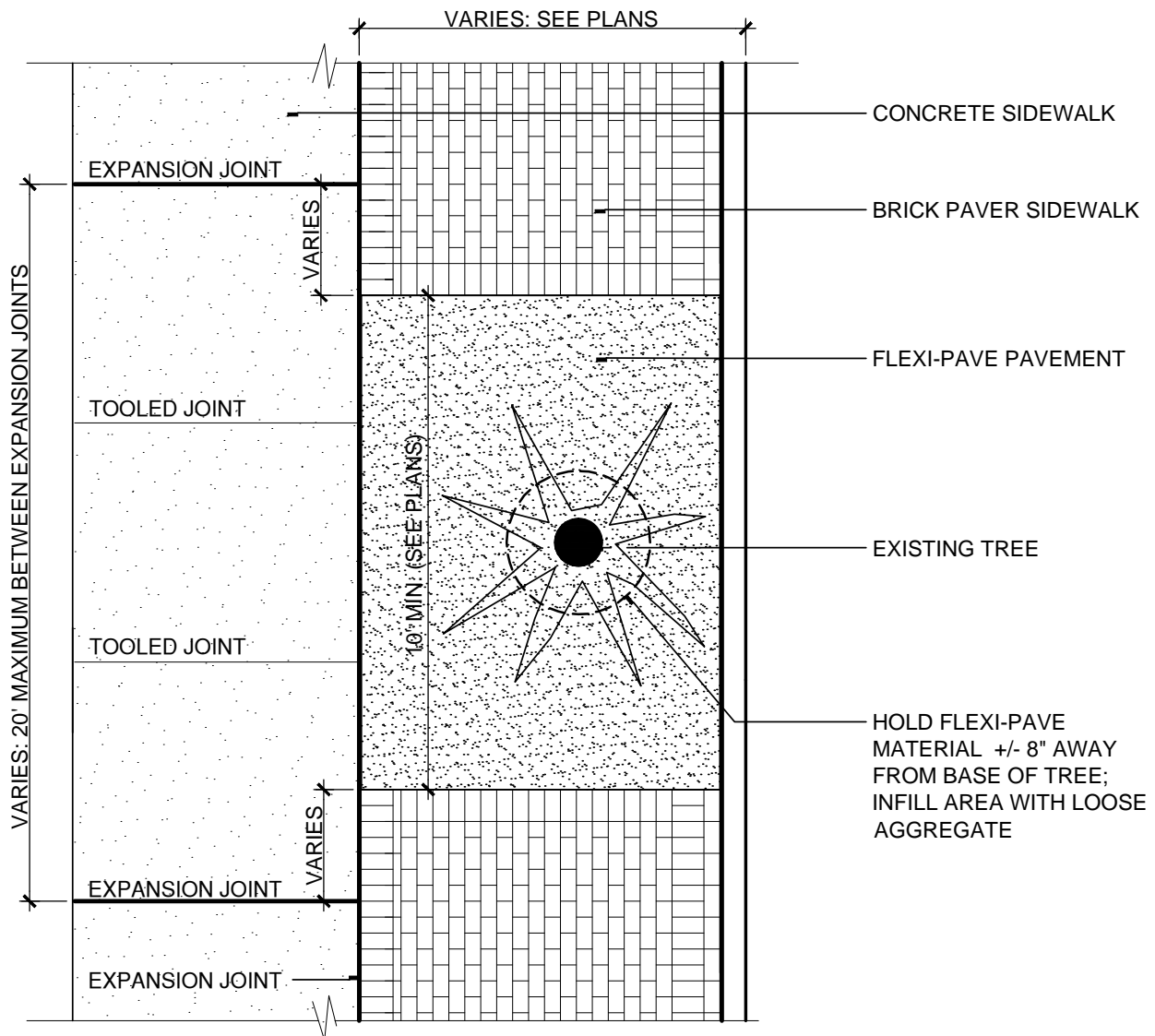




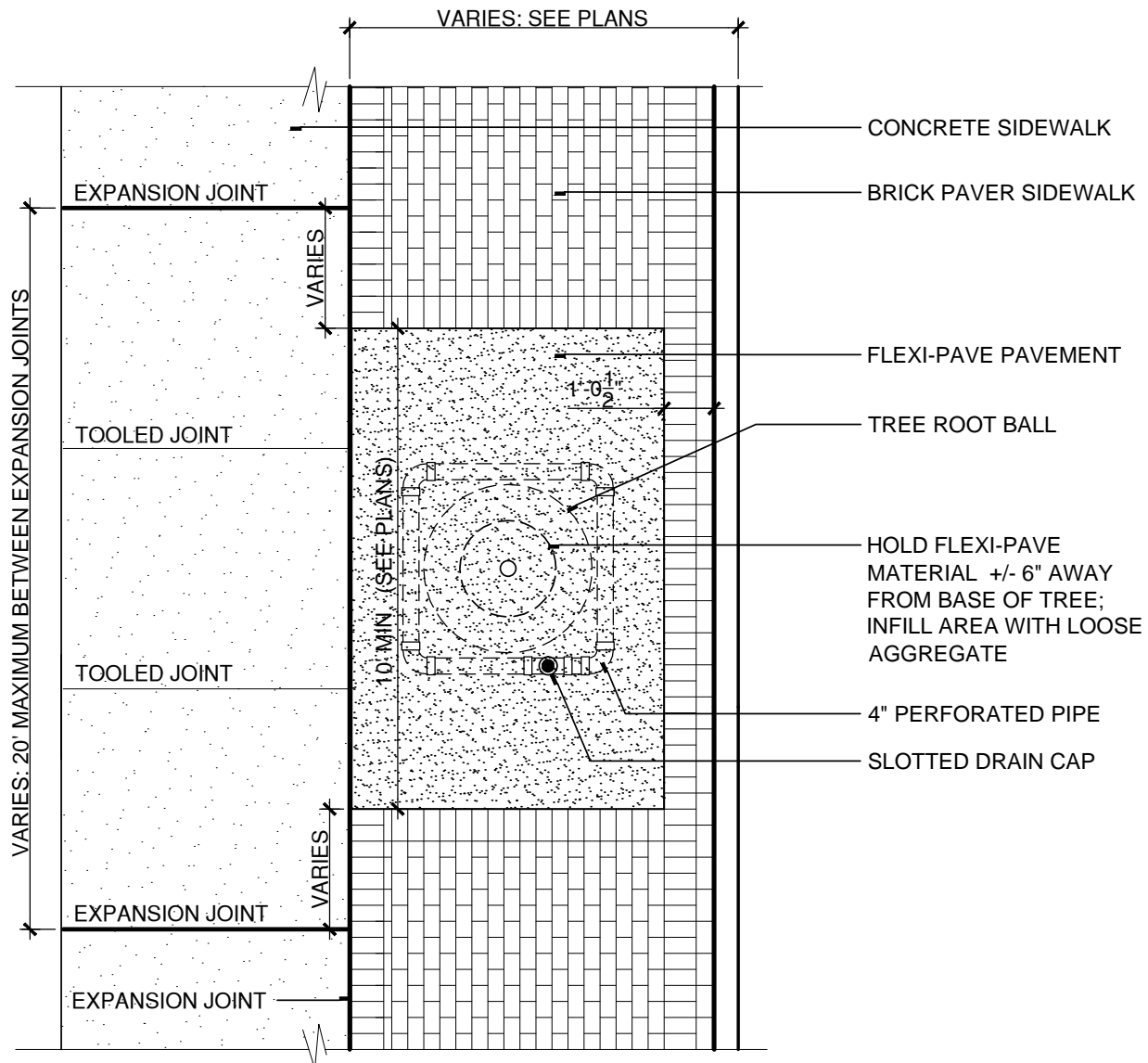
Tree Planters in Neighborhoods and Other Areas

In neighborhoods and other areas, Flexi-pave pavement will be used for existing or new tree planters. Flexi-pave is manufactured with high volumes of waste tires, and is a flexible, porous, non-cracking and slip-resistant material that withstands the demands of an urban environment.

Flexi-pave Pavement at Existing Tree



Flexi-pave Pavement at New Tree



Street Medians

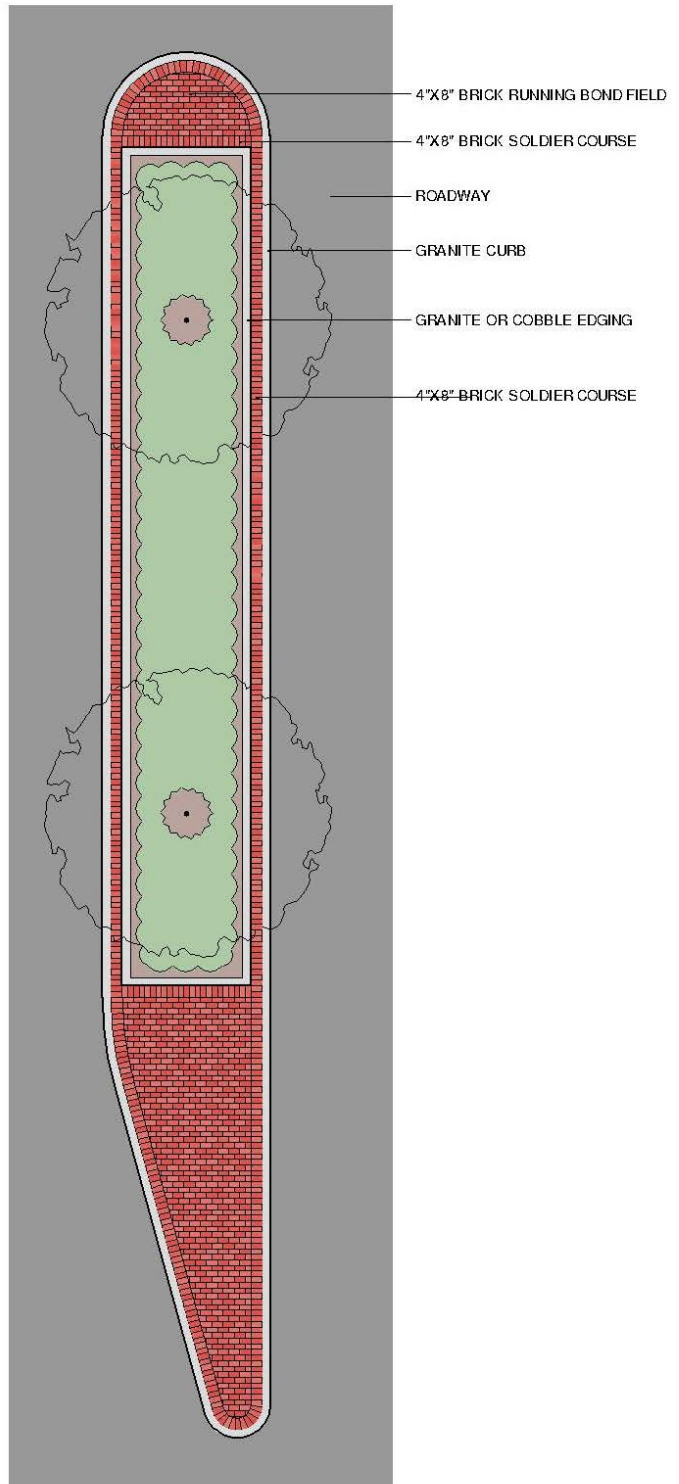
In areas downtown where the street allows, medians may be considered to reduce the amount of pavement and help to reduce the scale of the street, provide a pedestrian refuge, and provide visual interest and help soften the urban environment with landscape elements.

While a specific median design was not developed, many options are possible depending upon location. Specific plantings will be determined on a case by case basis.

Medians can be raised with granite curbing and have a raised planter within. To provide relief between the two curbs, a brick soldier and sailor course similar to that at the sidewalk can separate the two with additional brick pavement at the ends of the medians. The planters in the median can be planted with appropriate street trees and groundcover, perennials or small shrubs.

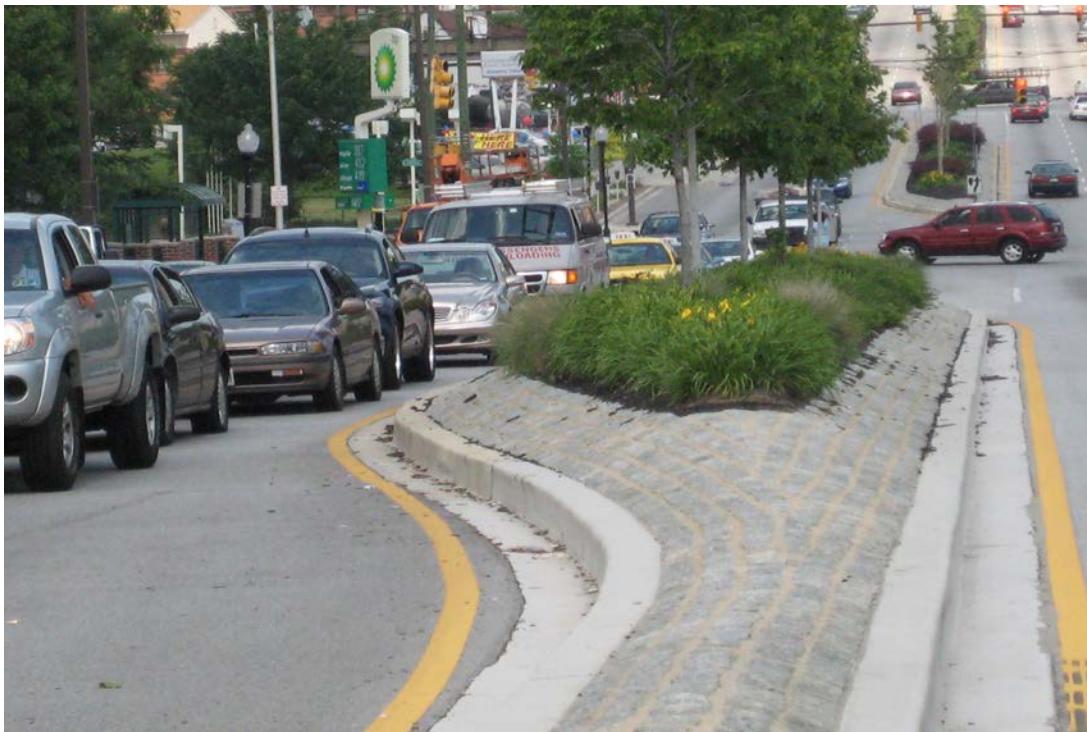
In instances where there is space available for a median, but access requirements onto adjacent streets or into parking lots prohibit the ability to provide a raised median, flush medians of brick pavers or stamped concrete should be considered. The median at right has a flush granite edging to define the median with a brick soldier and sailor course band and brick field of pavers in a herringbone pattern.

Example of Decorative Street Median





These examples illustrate how a median can enhance the green environment, even on a busy street. Medians can be a mix of hardscape and planted materials, such as the raised bed of low shrubs in Newark, New Jersey's Performing Arts District (above) or the raised cobblestone median with street trees and low perennials in Baltimore, Maryland (below).



Bike Racks

Providing bicycle racks is an important part of making bicycling a viable mode. If bike racks are not provided, or not of a design which encourages safe parking, bikes will be secured on other elements in the streetscape. The Inverted U bike rack (right) is a required design in many cities.

While the specific bike rack spec has not been decided, the selected bike rack be usable by a large variety of bike sizes and types, and should follow these general guidelines. Racks should:

- support the frame of the bicycle and not just one wheel
- allow the frame and one wheel to be locked to the rack when both wheels are left on the bike
- allow the frame and both wheels to be locked to the rack if the front wheel is removed allow the use of either a cable or U-shaped lock
- be securely anchored
- be usable by bikes with no kickstand
- be usable by bikes with water bottle cages

Consideration should be given to the bike rack's location and anticipated use. To promote bicycle use downtown, bike racks should be located adjacent to walkways or plazas, near all major generators and as close to bike routes as possible.

All bike racks should be mounted on brick or concrete pavement with adequate space allowed for bicycle access. Bike racks should be placed a minimum of 30" from walls or other objects.



Standard Bicycle Rack by Dumor Site Furnishings



Autopa Bicycle Racks



Belson Breckenridge Series Bicycle Rack



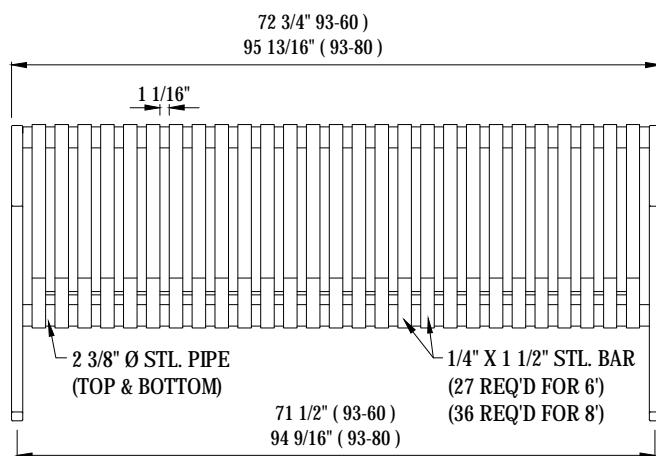
Site Furnishings

As part of the overall streetscape program, a family of site furniture has been selected that complements and help provide a cohesive approach to furnishing the downtown. The palette of fixtures are to be of similar style and finish. Using a selected family of furnishings helps provide continuity from one area to the next, while being more visually appealing as a well-thought out system of design elements. All site furnishings should be black finish to complement the City's existing and proposed light fixtures, sign posts, fencing, etc.

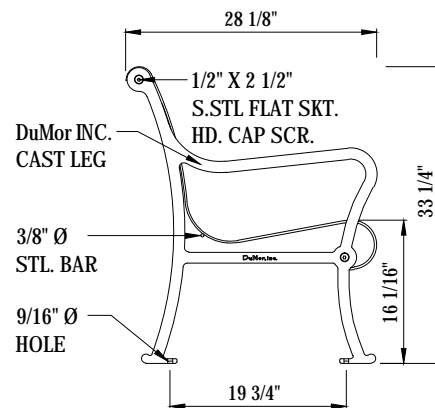
Benches

Benches are to be steel bench with backrest (vertical seat strap) manufactured by Dumor Site Furnishings (model no. Bench 93). The bench has simple lines, lending a contemporary approach to a traditional look. Its look blends well with both the historic and contemporary downtown architecture. Benches are to always be mounted on level paving brick pavers or concrete.

Metal Bench by Dumor Site Furnishings



FRONT VIEW
NOT TO SCALE



SIDE VIEW
NOT TO SCALE

NOTES:

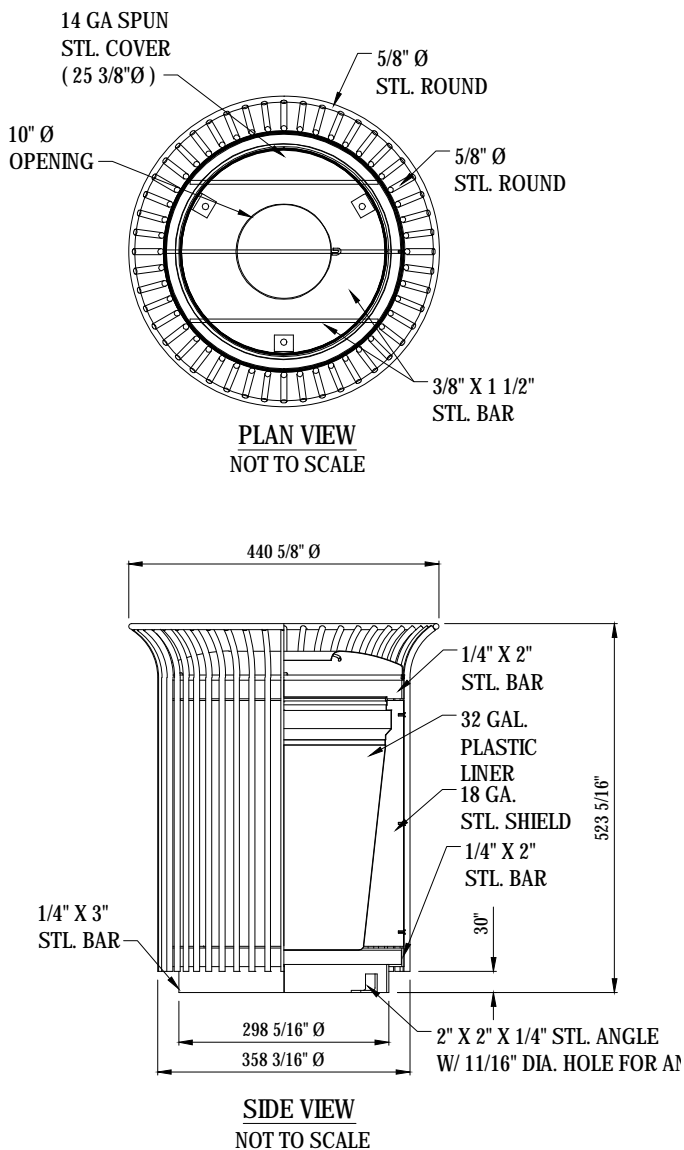
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
4. 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
5. BENCH IS SHIPPED UNASSEMBLED.

Litter Receptacles

The City will use two types of litter receptacles - one for automated collection (below, right) and one more decorative one at selected locations (right).

The decorative litter receptacles are to be steel and manufactured by Dumor Site Furnishings (model no. Receptacle 157). The receptacle's design and simple lines complement the steel bench specified as the downtown standard.

Decorative Litter Receptacle by Dumor Site Furnishings



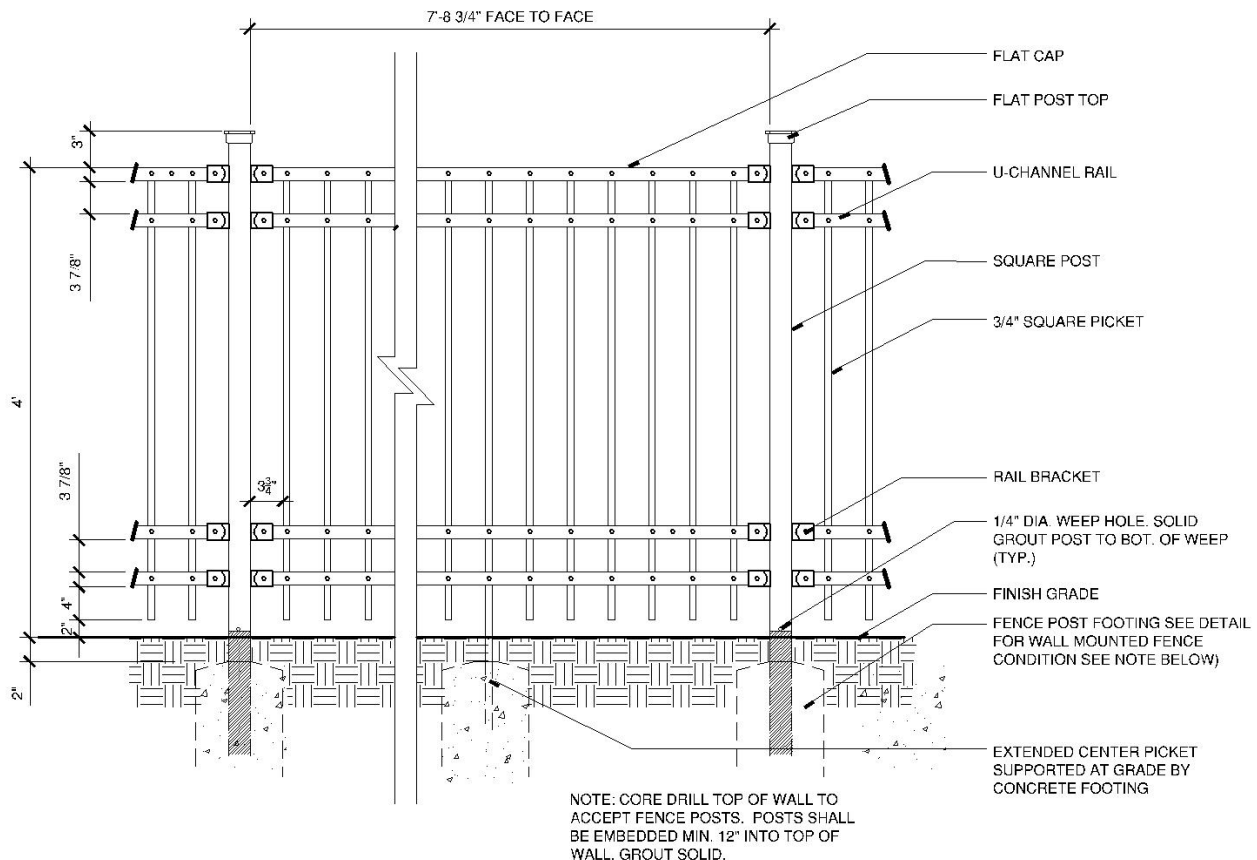
Fences

To define or delineate spaces, an ornamental fence may be appropriate, such as to define the edge of parking along a sidewalk or pedestrian way. This element will provide a strong edge and help visually screen the parking from the street. In these instances where possible, the fence should be installed approximately three feet back from the edge of walkway with the space between planted with perennials or groundcover for visual interest.

The use of chain link fencing should be minimized or avoided. In cases where chain link fence is used, it should be black vinyl-coated chain link so its finish ties in visually with other site elements throughout the downtown (i.e. lighting, furniture, sign posts, etc.).

Ornamental fencing in the downtown area should consist of 4' height simple metal black fencing. Fence style will be Imperial Fence - Style E, as manufactured by Monumental Iron Works (Master Halco) or an approved equal. The metal fence has double rails with exposed pickets on the bottom and double rails with flat cap on top. The post cap is to be flat. Decorative effects on the fencing should be avoided for consistency.

Ornamental Fence Detail



Signage

The Master Plan recommends improving the aesthetics of street signs within the downtown. New street signs should complement wayfinding and historic interpretive signage in Chapter 8. Black poles should be used, and the color and font palette should complement the wayfinding signs. District markers could be co-located with street signs. The following examples illustrate some possibilities.

New Orleans, LA



Portland, OR



Minneapolis, MN



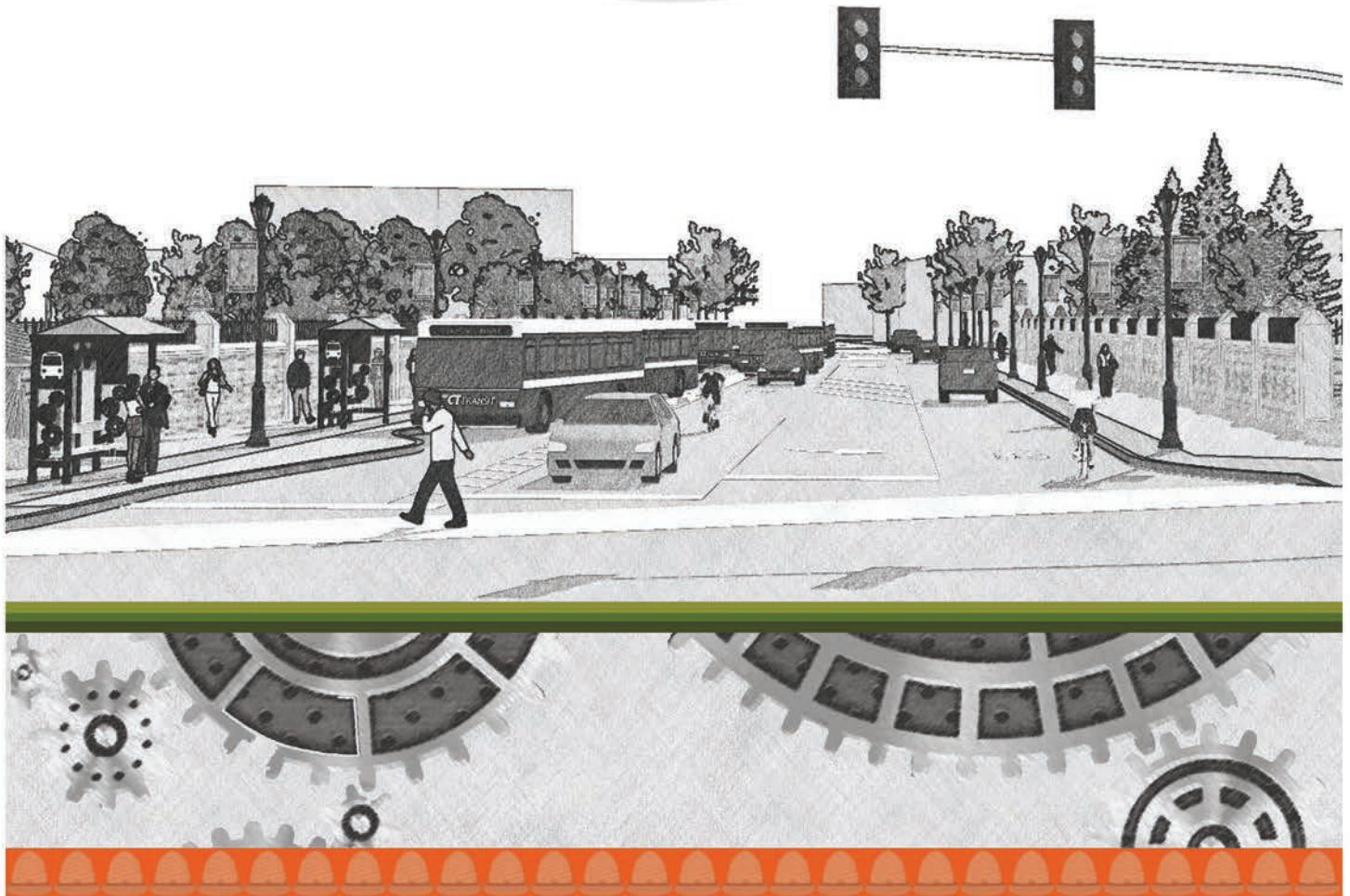
New York, NY



Lansdowne, PA



Chapter 12: Implementation of the Master Plan



The Complete Streets Master Plan for Downtown New Britain has been a fluid process. Unlike typical master plan projects, this master plan can best be described as a design-build type process. Strong state, federal and local support for this project led to the award of several competitive grants to fund construction. Many of the concepts developed through the master planning process went directly to design and then construction, while the planning for other areas within the overall study area were still being finalized.

At the time of the Master Plan's completion in October of 2013, the first phase of streetscape construction was already complete, the second phase of streetscape is in construction, and the third phase of streetscape construction and Broad Street are both in design and will be bid for construction in 2014.

Master Plan implementation will be broken down into several phases of construction, with the intention of completing the primary work identified in Master Plan Study Areas 1-4 by the end of 2015, in close conjunction with CTfastrak's 2015 opening.

Some of the primary tasks in Master Plan implementation include:

1. Implementing road diets based on our traffic studies and constructing aesthetic streetscape improvements throughout Study Areas 1, 2, 3 & 4.
2. Implementing lane reductions and a road diet for several critical intersections along Main Street.
3. Continue working with multiple State agencies on the relocation of downtown's local bus hub, "Central Station", from Bank Street to Columbus Boulevard and the Main Street Overpass. This project includes implementing Complete Streets, public art and architectural improvements across the Main Street Overpass of Route 72. This concept will be instrumental in re-linking both sides of the downtown split by Route 72 and transforming the Main Street Overpass into a landmark structure. A critical dimension of this concept is creating opportunities for transit-oriented development.
4. Reconfiguring, redesign and reconstructing Central Park, using either an historical New England-type town green or a European city plaza type design approach. This process will involve an extensive public outreach and engagement process.
5. Implementing the wayfinding and historical signage projects throughout the downtown area.
6. Introducing significant gateway features into the Little Poland Broad Street area and onto Arch Street.
7. Once "behind the curb" Complete Streets improvements area completed in Study Areas 1-4, implement an in-road project that will rehabilitate the pavement condition in the downtown and introduce a landscaped median and brick crosswalks at critical pedestrian crossings.

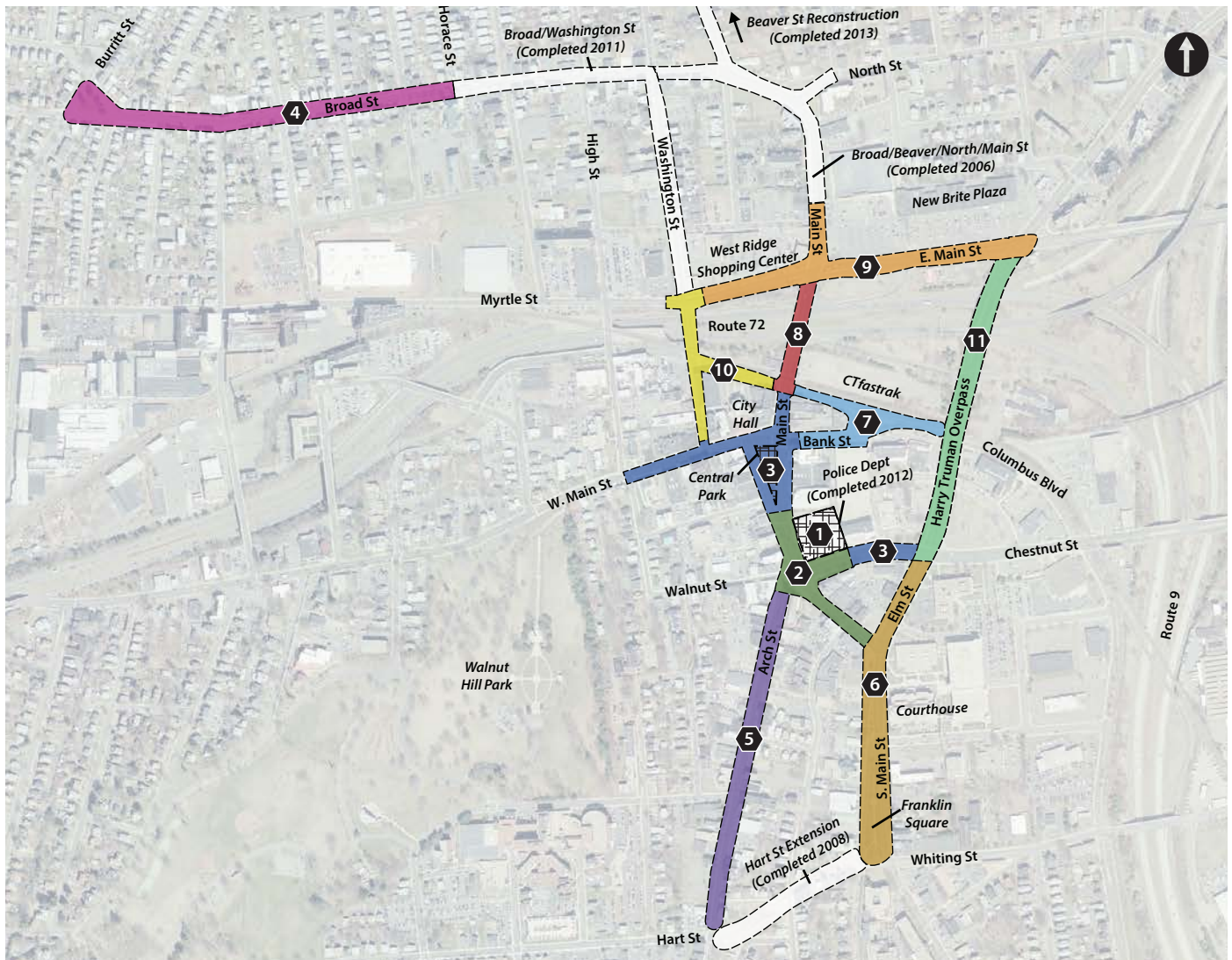
The figure at right shows a breakdown of projects by phase, status and cost. The City will continue to pursue additional State and Federal funding for the improvements identified in this Master Plan.

In concert with constructing Complete Streets throughout the downtown area, the City will also be taking the following related actions to implementing the Master Plan, and the City's larger goal of creating a livable downtown area and making it more attractive for transit-oriented development:

1. Implement *Connecticut Main Street's Four Step Approach* to complement the physical streetscape improvements that will be constructed as a result of the master plan. These four steps involve:
 - a. *Organizing* through a community driven process that will match New Britain's assets to its potential;
 - b. *Promoting* the City through branding and events to help increase the social value of the downtown and thus increase its economic value;
 - c. *Designing*, which is what this master plan largely focused on. Once constructed, these improvements will create a more attractive, more pedestrian friendly and livable environment through physical improvements to the road network and historic building revitalization;
 - d. *Economic Restructuring*, which will help increase the economic value of the downtown by encouraging diversity for the current and new businesses in the downtown.
2. Continue working with ConnDOT, CT Transit, and NB Transit improving service plans for both local and CTfastrak bus service.
3. Establish a formal process to increase the amount and accessibility of art and historical elements in the environment. These are an essential part of placemaking and enrich the pedestrian experience. Through partnerships with the Museum of American Art, CCSU, the Polonia Association, and the City's Arts Commission, increase the quantity and quality of art in the downtown area. Consider designating a Downtown District to address issues in a cohesive manner.
4. Examine and revise the City's zoning for the downtown area to ensure it promotes transit-oriented development. Critical issues to address include mixed use zoning, floor area ratios, parking ratios, bicycle parking and other elements that will support the goals of this master plan.
5. In concert with zoning efforts, establish a plan for repurposing candidate properties and buildings in the downtown area for redevelopment as transit-oriented development sites.
6. Develop a maintenance strategy for the downtown area to make sure that the newly constructed streetscape improvements can be sustained in the long term.
7. Develop a program to implement the innovative parking strategies proposed for downtown – including back-in angled parking and shared parking. For back-in angled parking, develop an education program and monitor the implementation experience. Establish agreements with business and property owners to repurpose a portion of privately owned off-street downtown parking into shared use public parking.
8. Continue to meet with the Working Group on a regular basis. While the specifics that the Working Group are asked to participate in may change to reflect various aspects of implementation, assuring that implementation of the Master Plan is consistent with its vision is the Working Group's single most important role.



Project Phases



Phase	Name	Status	Cost	Funding Source
1	Police Station / Parking Lot / Main	Complete	\$0.4	City Bond (approved)
2	Main / Chestnut / Arch	Construction	\$1.3	ConnDOT TOD Grant (.75M); City Bond (.55M approved)
3	Central Park / Main / W. Main	In Design	\$3.8*	TCSP (1.3M); STP Urban (2.5M); City Match (.8M)
4	Broad Street (Horace to Burritt)	In Design	\$4.5*	City Bond (approved); STPU (possible)
5	Arch Street	In Design	\$1.6*	City Bond (approved)
6	Elm / S. Main	In Design	\$1.4*	City Bond (approved)
7	Columbus / Bank (Bus Livability)	Planning	\$2.9*	HUD Bus Livability Grant (1.6M); City Bond (approved)
8	Main St. Overpass over SR. 72	Planning	\$2.3*	undetermined
9	Main / E. Main	Not Active	\$1.8*	undetermined
10	Washington/Columbus Streetscape	Not Active	\$1.0*	undetermined
11	Harry Truman Overpass	Construction	\$4.0*	undetermined
12	Medians, Crosswalks, & Paving streetscape	Not Active	\$2.1*	undetermined
Costs in Millions (Estimated)		Total:	\$26.8*	

