



Plymouth Downtown Development Authority 2020 Master Plan

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1. Chapter 1: Introduction

1.1 Plan Purpose

The City of Plymouth Downtown Development Authority (DDA) has prepared this Master Plan to provide a unified vision for future growth and improvement. The master planning process is cooperative and public. Input from the public and various governmental entities are gathered throughout the planning process. The master plan also provides the opportunity to ascertain progress in implementing the goals and policies outlined in previous planning efforts.

In 2018, both the City Commission and the DDA developed Five-Year Strategic Plans, respectively. The benefits of developing such a plan is to help guide decision making and policy in a strategic way for the next five years. These strategic plans help set the vision for the future. The City of Plymouth's primary goals are all focused on the future in key areas such as parking, transportation, infrastructure, and economic viability. All these areas contribute to the Vision 2022 Goal of maintaining a vibrant and active downtown Plymouth. Following the development of the Five-Year Strategic Plan, this Master Plan is a continuation of these efforts to provide a future vision of downtown Plymouth.

The Plymouth DDA Master Plan will provide guidelines for future development of the downtown area and serves as a tool to:

- Establish a vision for future downtown upgrades
- Identify the remaining useful life of the current streetscape
- Identify strategic areas to focus future resources

This plan presents the existing conditions of the downtown area, including an inventory of infrastructure data and maps of their locations. These conditions were analyzed to assess the maintenance needs of the Downtown area to keep the area vibrant and welcoming. Stakeholder engagement and citizen participation identified existing valuable assets as well as concerns and priority needs within the DDA boundary. Community recommendations are presented to guide future development based on these background studies, infrastructure assets, and community feedback.

1.2 DDA Background

The Plymouth Downtown Development Authority (DDA) was established in 1983 and is overseen by the Mayor and a 10-member board appointed by the City Commission. Members include business owners and city residents. The DDA encompasses an area of approximately 57 acres and is roughly bounded by Church Street and Roe Street to the north, Union Street and Deer Street to the east, Wing Street to the south, and Harvey Street to the west. Figure 1.1 shows the location of the Plymouth DDA.

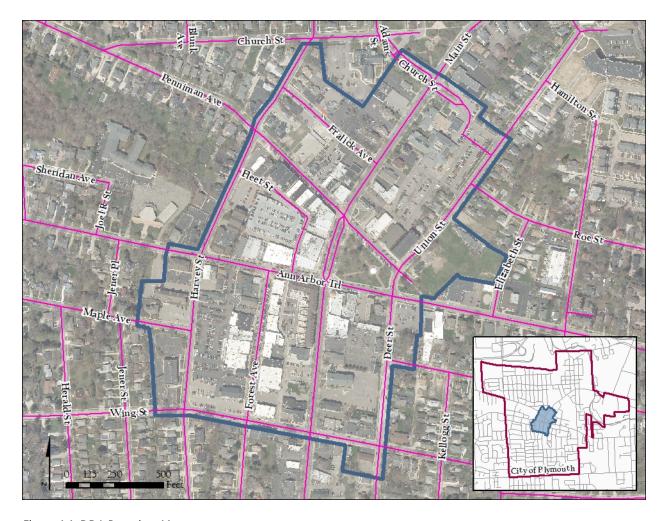


Figure 1.1: DDA Boundary Map

The DDA area includes nearly 190 properties within the boundary. An evaluation from DDA staff in October 2019 estimated that approximately 260 businesses and services operate within the DDA. The DDA aims to foster economic development in the downtown area. This includes the maintenance of streetscape elements including parking lots, street lighting, signage, and landscaping. The DDA is also responsible for marketing the area through the DDA website, social media accounts, and other methods of communication.

1.3 Planning Process

Collection of basic condition assessment data for public features within the DDA District took place in Spring 2019 with engineers and a landscape architect surveying the District. The City's Public parking lots were inventoried and assessed for condition using the PASER rating system, consistent with the City's rating process for City streets. The condition of trees within the DDA District occurred in early summer 2019, after tree buds transitioned to leaves to better determine tree health.

Stakeholder engagement was an important piece of the planning process as working with community members and community leaders to receive their feedback is a vital part of the project's success. A DDA Master Plan Questionnaire was developed and provided to selected stakeholders. The questionnaire

asked participants to assess existing amenities along with the importance of future potential projects. The results of the questionnaire were reviewed at a DDA Board Meeting, and DDA Board Members were given a homework assignment as a follow-up to the questionnaire. The assignment asked board members to connect potential projects to broader community goals.

2. Chapter 2: Existing Conditions

2.1 Approach

To best catalog and inventory the existing conditions within the DDA District, Geographic Information Systems (GIS) was determined to be an efficient and appropriate system for data organization. GIS is a framework for collecting and managing data in a physical environment. It is an effective tool for organization and can assist communities with understanding spatial patterns and relationships. While there are many ways to use GIS to organize data, a geodatabase is a widely accepted system for file management. A geodatabase is a comprehensive information model for representing and managing geographic data. The geodatabase file structure selected as the template for the Plymouth DDA District streetscape data is ESRI's Local Government Information Model (LGIM). The LGIM is an organizational geodatabase template designed to support and facilitate data management and analysis tasks commonly performed by local governments and similar entities. The Street Facilities feature dataset of the LGIM was used as the elements included most closely aligned with the streetscape features within the DDA District.

2.2 Geodatabase Design

Using aerial photography and local knowledge the geodatabase was populated to represent the various streetscape elements. As shown in Figure 2.1, six feature classes were populated, including: parking, poles, sidewalks, street curbs, street furniture, and trees. Parking features included both parking lots and on-street parking, while pole features included signs, signals, streetlights, and utility poles. The street furniture feature category accounted for many miscellaneous streetscape items such as benches, bike racks, drinking fountains, informational signs, planter boxes, receptacles, and tree grates. In addition to the location of these features, attributes were collected to better describe the type, quality, and condition of the various features. The attribute data collected for each feature varies. For example, the number of total spaces, and the surface type was collected for parking areas while the genus, species, and height were collected for trees. A complete list of attribute data collected is shown in Figure 2.1.

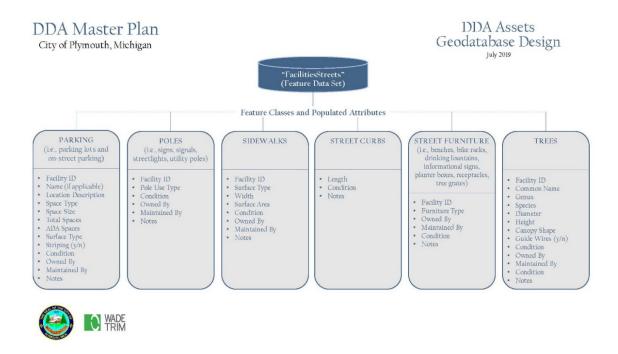


Figure 2.1: DDA Assets Geodatabase Design

Following the initial placement of features using aerial photography, field crews surveyed the DDA District to collect attribute data. Two engineers and one landscape architect surveyed the area over two days collecting condition information of streetscape elements. The engineers evaluated the condition of parking areas, poles, sidewalks, street curbs, and street furniture, while the landscape architect evaluated tree condition. Engineers assigned PASER ratings to the parking structure and surface parking lots. As needed, elements were added or removed to accurately represent the most current conditions on site.

2.3 Existing Conditions Maps and Inventory

2.3.1 Condition of Sidewalks, Street Curbs, and Public Parking

Figure 2.2 displays the location and condition of sidewalks, street curbs, and public parking in the DDA District. There is nearly 175,000 square feet of sidewalk in the DDA District that is available for pedestrians to access amenities in the district. Sidewalks are available on every block within the District with one exception on the south side of Church Street, west of Union Street. There is no sidewalk access adjacent to the North Library Lot, but overall the sidewalk system is extensive and complete. 96.6 percent of the sidewalks in the DDA District were evaluated as being in good condition. 1.9 percent was evaluated as being in fair condition, 1.3 percent was evaluated as being in poor condition, and 0.2 percent was evaluated as being in very poor condition. Very poor sections of sidewalks were found on Penniman Avenue between Main Street and Harvey Street, and on Main Street between Wing Street and Ann Arbor Trail. Most sidewalks in very poor condition had a brick paver surface type. Poor sections of sidewalk were found primarily along Penniman Avenue and Main Street, with the largest section on the west side of Main Street, just north of Penniman Avenue. Sidewalks given a poor or very poor rating were because of cracks in the pavement, heaved joints and any other distress that would be a hazard for pedestrian walking.

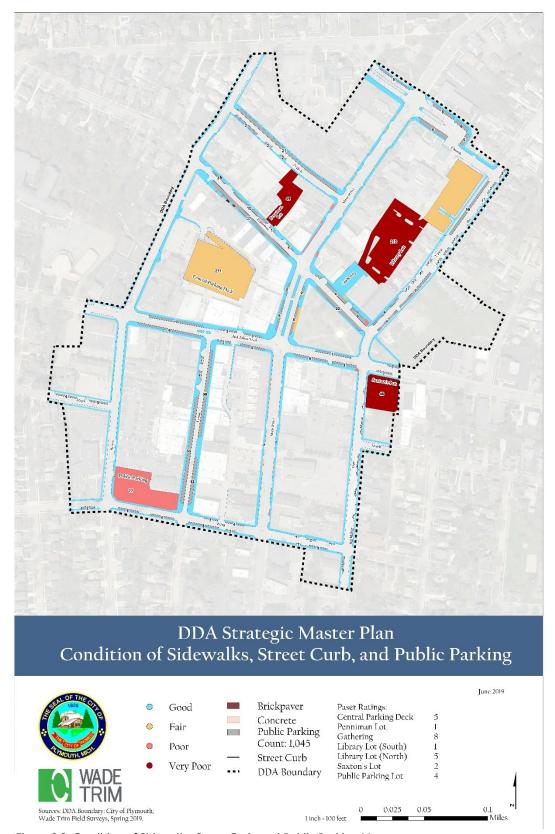


Figure 2.2: Condition of Sidewalks, Street Curb, and Public Parking Map

There is nearly 25,000 linear feet of street curbs in the DDA District. 99.1 percent of street curbs in the District were identified as being in good condition. Only 0.7 percent and 0.2 percent were identified as being in poor or very poor condition, respectively. Two segments of street curb were identified as being in very poor condition. One section is located on the west side of Main Street, just south of Penniman Avenue. The other section in very poor condition is located on the east side of Forest Avenue, north of Wing Street.

The DDA District contains three types of parking locations: a parking garage, surface parking lots, and street parking. The Central Parking Deck parking garage contains 27l parking spaces. The six surface parking lots include 802 parking spaces and street parking provides an additional 392 spaces. The parking area under the parking structure and the six surface lots were evaluated using the PASER rating method. PASER stands for Pavement Surface Evaluation and Rating. The PASER system rates pavement surfaces on a scale of 1 to 10 based on the amount of surface defects that are visible to the person inspecting the pavement. A rating of 10 represents a newly constructed roadway, whereas a rating of 1 represents a highly deteriorated roadway. Typical treatments based on the type of pavement for each rating and condition quality are shown in the table below:

Quality	PASER Rating	Treatment for Asphalt	Treatment for Concrete
Excellent	9 to 10	No maintenance	No maintenance
		required	required
Good	7 to 8	Crack sealing and minor	Crack sealing
		patching	-
Fair	5 to 6	Non-structural	Surface repairs, and
		preservation techniques	partial depth patching
Poor	3 to 4	Structural resurfacing	Extensive slab or joint
			rehabilitation
Failed	1 to 2	Reconstruction	Reconstruction

The Parking structure was assigned a PASER rating of 5 and is considered in fair condition. Of the six surface parking lots, the Gathering Lot was rated the highest with a PASER rating of 8 and is considered in good condition. The Library Lot (north) was assigned a PASER rating of 5 and is considered in fair condition and the public parking lot located at the northeast corner of Harvey Street and Wing Street was assigned a PASER rating of 4 and is considered in poor condition. The remaining surface parking lots, Saxton's Lot, Penniman Lot, and the Library Lot (south), were all noted as being in very poor condition, with PASER ratings of 2, 1, and 1, respectively. Street parking areas were not evaluated with PASER ratings. The parking lots that were given a poor or very poor rating were due to the aggregate base showing through the asphalt surface. There was severe alligator cracking so much that pieces could be picked up by hand. There were large sections with little to no structural integrity left in the asphalt pavement.

2.3.2 Condition of Poles

Figure 2.3 presents the location and positions of poles in the DDA District. In the context of the geodatabase, poles include signs, signals, streetlights, and utility poles. There are 60 signs located within the District, and all but three were rated as being in good condition. The remaining three signs were all rated as being in fair condition and noted as either faded, in need of paint, or rusting.

There are nine traffic signals in the DDA District and two thirds were rated as being in good condition. The remaining three traffic signals were rated as being in fair condition and noted as needing paint or rusting.

In the DDA District there are 141 streetlights, of which, 72 percent were rated as being in good condition and 28 percent were rated as being in fair condition. Issues of rust were the leading cause of the lower rating, followed by issues with paint. Nearly all the streetlights in fair condition are located in close proximity to each other. Corridors that contain many streetlights in fair condition include Penniman Avenue between Main Street and Harvey Street; Main Street between Penniman Avenue and Church Street; and the east portion of Main Street between Penniman Avenue and Ann Arbor Trail. There are 45 utility poles within the DDA District and all were rated as being in good condition.

2.3.3 Condition of Streetscape Elements

The location and condition of streetscape elements in the DDA District are shown in Figure 2.4. Streetscape elements found in the district include benches, bike racks, decorative clocks, drinking fountains, information signs, communications utility cabinet, planters, recycling receptacles, trash receptacles, tree grates, and utility boxes. There are 41 benches distributed throughout the District and all were identified as being in good condition. There are nine bike racks within the district and all were identified as being in good condition. There is one drinking fountain in the District located at the northwest corner of Penniman Street and Main Street and was identified as being in good condition. The District also has a single decorative clock, in good condition, located in the median of Main Street, just north of Ann Arbor Trail.

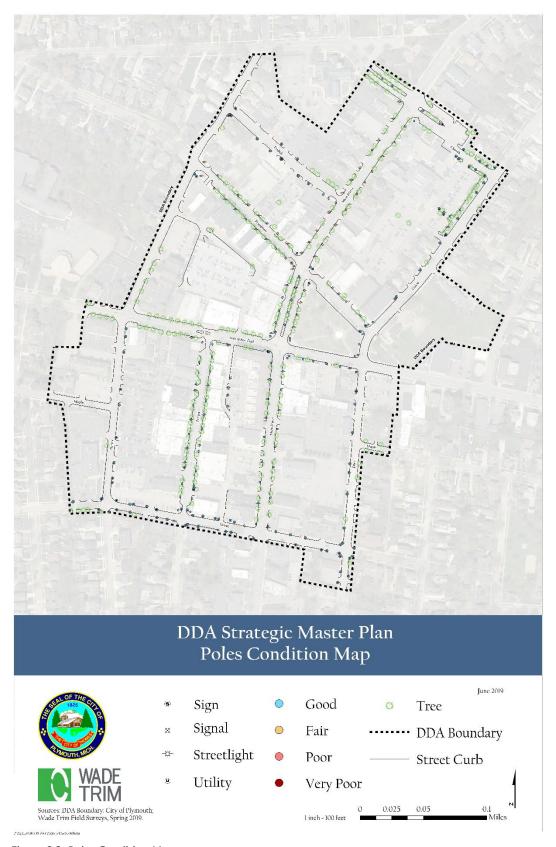


Figure 2.3: Poles Condition Map

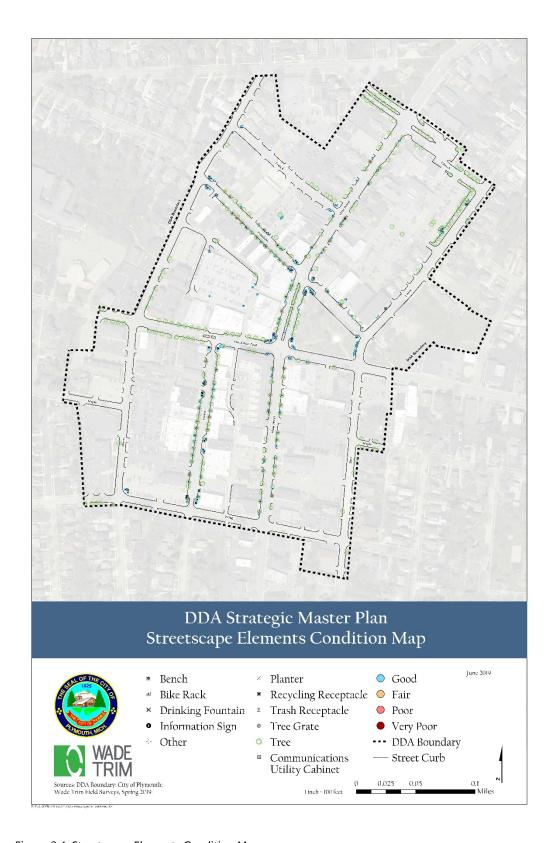


Figure 2.4: Streetscape Elements Condition Map

Two information signs are located within the DDA District, one at the northwest corner of Ann Arbor Trail and Main Street, and the other at the southwest corner of Ann Arbor Trail and Forest Avenue. Both information signs are in good condition. There are three communication utility cabinets within the District and all were rated as being in good condition. Two recycling receptacles are located in the District and both were rated as being in good condition. There are 51 trash receptacles distributed throughout the District and all are considered to be in good condition. Two utility boxes are located in the District, both are on Union Street and are rated as being in good condition.

There are 44 planter boxes in the DDA District, the majority are located on Main Street and Forest Avenue. All were rated as being in good condition, except for one planter box at the southern end of Forest Street, which was identified as being in fair condition due to chipped concrete. 78 tree grates were surveyed throughout the District. Tree grates are found almost exclusively along Main Street, Forest Avenue, and Penniman Avenue. 55 percent of the tree grates were found to be in good condition and 23 percent were found to be in fair condition. The leading cause of the assigned 'fair' rating was issues heaving. 16 tree grates, or 21 percent, were rated as being in poor condition. Several issues were cited as causing the poor rating, including the settling, heaving, and cracking of grates. A few tree grates that were rated as poor were noted as broken grates. One tree grate in the district was identified as being in very poor condition. It is located at the southeast corner of Main Street and Fralick Avenue and is noted as having a heaving and broken grate. Overall the streetscape elements in the DDA District are in good condition, but there is a need to upgrade certain tree grates in the District.

2.3.4. Condition of Street Trees

There are 254 street trees within the DDA District, not including the trees located in Kellogg Park. The tree locations and condition assessments are displayed in Figure 2.5. The most common tree type found in the District is Honey-Locust, comprising 70 percent of the tree population. Callery Pear is another tree type commonly found in the DDA District, along with several Maple varieties. Trees were assigned ratings ranging from Poor to Excellent. 33 percent of street trees were identified as being in excellent condition and 44 percent were identified as being in very good condition. 12 percent of street trees were assigned a rating of being in good condition and a few notes were made including trimming due to wires and one tree with a gash in the trunk. 11 percent of street trees were assigned a rating of being in fair condition. The main issues leading to this type of rating included bare branches, missing bark, and small crowns due to aggressive tree trimming for electrical wires. There were two trees rated as being in poor condition, and both in the southwest portion of the District. The contributing factors to this type of rating was aggressive tree trimming for electrical wires and excessive branch loss.

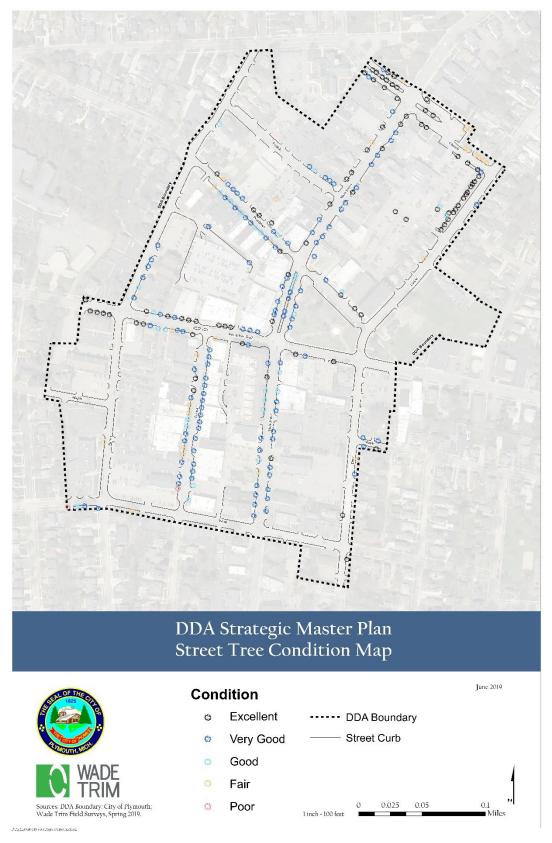


Figure 2.5: Street Tree Condition Map

3. Chapter 3: Stakeholder Engagement

3.1 Stakeholder Engagement Process

In early summer 2019, a DDA Master Plan Questionnaire was provided to stakeholders invested in the ongoing improvement of the DDA District, including DDA members, City Commissioners, and members of the City of Plymouth Staff. The Questionnaire included four open ended questions and one asset specific question, as follows:

- Question #1: Which existing assets are most valuable? (open ended)
- Question #2: Which existing assets are not valuable, need improvement or could be improved? (open ended)
- Question #3: Which public amenities do you hope to see integrated into the City's downtown in the future? (open ended)
- Question #4: What improvements or future amenities do you view as highest priority? (open ended)
- Question #5: Please rate the level of importance of the following assets as they relate to the character and desirability of downtown using a scale of 5 = Highly Important, 4 = Moderately Important, 3 = Neutral, 2 = Moderately Unimportant, and 1 = Highly Unimportant

Questions #1 through #4 were open ended questions that required the stakeholders to fill in answers without any clues related to specific topics. The stakeholders were not limited to any amount of response for questions #1 through #4. Question #5, however, required the stakeholder to rate the importance of 19 unique streetscape elements, some which exist currently within the downtown and others which currently do not exist in downtown Plymouth (i.e. bike lanes).

Responses were collected and compiled before being reviewed at the DDA Board Meeting on July 8, 2019. At the meeting, the results from the DDA Master Plan Questionnaire was presented along with a summary of condition assessment information collected by Wade Trim. This information served as the baseline of asset mapping of sidewalks, street curbs, public parking, streetscape elements, street trees. The results from the DDA Master Plan Questionnaire along with the condition assessment data were summarized and are included as attachments to this Master Plan.

A discussion between DDA Board members followed the presentation and included ideas regarding the results' relationship to the strategic plan and goals for the DDA. At the meeting, DDA members were provided a project prioritization sheet to be filled out and completed within a week for further analysis. This homework assignment asked DDA Board members to assign a rating of potential projects and how they relate to the DDA 2018 Five Year Action Plan Goals, the Plymouth Strategic Plan 2017-2022 Goals, and Broader goals for the community.

3.2 Stakeholder Engagement Results

3.2.1 DDA Master Plan Questionnaire Results

Participants in the DDA Master Plan Questionnaire were asked to respond to five questions and given the opportunity to provide further comment. Question ranged from asking about the most valuable

assets in the DDA District; which assets were less valuable or needed improvement; and desired future amenities. Questions regarding priorities were also addressed in the questionnaire. A complete set of survey responses is included in Appendix A.

The question regarding the greatest assets to the DDA yielded a variety of results, but the top four assets identified were Kellogg Park, the Parking Deck, the parking system/availability of parking and trees. A summary of assets is shown in Figure 3.1. Participants also identified many necessary improvements or future priorities in the District. The four priorities identified the most by participants were sidewalk repairs, Kellogg Park improvements, parking system improvements/strategy, and bike lanes. A summary of these priorities is displayed in Figure 3.2.

Another strategy used in the survey was to have participants rate assets a level of importance as they relate to the character and desirability of the downtown area. Assets were rated using a scale of 5 (highly important) to 1 (highly unimportant). These ratings were analyzed and summarized in Figure 3.3. Trees; off-street parking; and sidewalks/non-motorized corridors had the highest average ratings, with averages of 4.67, 4.58, and 4.54, respectively. Assets that received the lowest average ratings were scooter sharing; bicycle sharing, and electric vehicle plug-in stations, with averages of 2.04, 2.88, and 3.21, respectively.

In addition, three of the questions and responses were put into graphic form for view by the public during one of the public engagement opportunities during a DDA meeting. These questionnaire infographics are shown in Appendix B.

Q1 - Which Existing Assets are Most Valuable? Open-Ended Response Categories/Frequency

Response Categories	Times Noted
Kellogg Park	19
Parking deck	10
Parking system/availability of parking	6
Trees	6
Walkability	5
Fountain	5
Social/gathering space	5
Sidewalks	4
Business mix/shopping convience	4
Underground utilities	3
Special events	3
Crosswalks	3
Lighting	2
Roads	2
Aesthetic appeal and charm	2
Welcoming/friendly	2
Penn Theater	2
Band shell	2
Main Street	2
Tree lights	2
Flowers	1
Saxtons	1
DMS equipment	1
Parks	1
Wayfinding signage	1
Cleanliness/maintenance	1
Streetscape	1
Benches	1
Trash and recycling bins	1
Clock	1
Tree grates	1
Traffic flox	1
DDA staff	1
Free parking	1
Sidewalk cafes	1
Planter boxes	1

Figure 3.1: DDA Existing Valuable Assets

Q4 - What Improvements or Future Amenities do you View as the Highest Priority? Open-Ended Response Categories/Frequency

Response Categories	Times Noted
Sidewalk repairs	8
Kellogg Park improvements	7
Parking system improvements/strategy	7
Bike lanes	6
Parking deck repairs/replacement	5
Pedestrian safety improvements/amenities	5
Wayfinding/signage/gateways	5
Tree replacement	4
Street improvements	3
Bike racks/parking	3
Beautification/landscaping/streetscaping	3
Tree lighting	2
Tree grate repairs	2
Underground infrastructure upgrades	2
Lighting	2
Explore paid parking	2
Security/maintenance	2
Shuttle service	2
Benches	1
Drinking fountains	1
Composting	1
Sidewalks/non-motorized pathways	1
Truck traffic enforcement	1
Permanent band stand	1
Recycle bins	1
Support for businesses	1
Programming/special events	1
Ride sharing	1

Figure 3.2: DDA High Priority Future Amenities and Improvements

Trees 1 1 3 3 5 6 4 4 7 7 7 8 8 8 8 11 11 4 11 4 11 8 11 8	Par	Sidewalks/ Non- motorized Corridors 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ights															
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Average 4.67	4.58	4.54	4.42	4.29	4.29	4.29	4.08	4.04	3.88	3.83	3.79	3.71	3.67	3.65	3.25	3.21	2.88	2.04

Figure 3.3: Importance of Assets to the character and desirability of Downtown

3.2.2 DDA Board Member Homework Assignment Results

Following the conclusion of the questionnaire and discussion of the results at the July 8, 2019 meeting, Board members were asked to complete a homework assignment consisting of rating priorities as they related to goals in the Downtown area. A summary of the homework results is shown in Figure 3.4 and the top five projects identified for each goal are highlighted. Scores were also tabulated by the average number of goals achieved based on votes by respondents. Kellogg Park scored the highest in this rating system by achieving 4.82 goals. These goals included Social Interaction and Welfare; Protection/Enhancement of Natural Assets; Beautification and Design; Quality of Life (Plymouth Strategic Plan) and Kellogg Park Goals (Five Year Action Plan). Streetlights scored the second highest average by achieving 4.64 goals. These goals included Social Interaction and Welfare; Beautification and Design; Service Infrastructure and Quality of Life (Plymouth Strategic Plan) and Support Businesses and Make Downtown More Pedestrian Friendly (Five Year Action Plan). Wayfinding and Signage was the asset with the third highest average by achieving 4.18 goals. These goals included Economic Vitality and Service Infrastructure (Plymouth Strategic Plan); and Support Businesses and Make Downtown More Pedestrian Friendly (Five Year Action Plan).

					- 1	Does the Pro	oject Categor	nity Goals?	- Homewor						
			DDA 2018 Five Year Action Plan Goals Plymouth Strategic Plan 2017-2022							Other	Goals:			5	
Project Category	Q4 Times Noted	GS Category with Average Rating*	Increase Parking Inventory	Make Downtown More Pedestrian Friendly	Kellogg Park	Support Businesses	Quality of Life	Economic Vitality	Service Infrastructure	Beautification and Design	Mobility and Circulation Improvements	Protection/Enhancement of Natural Assets	Social Interaction and Welfare	Total Number of Votes Received (11 Respondents)	Average Number of Goals Achieved based Respondent Votes
Bench repair/replacement	1	4.29 (seating & gathering areas)	0	10	7	0	7	0	2	8	0	0	5	39	3.55
Bike lanes	6	3.71 (bike lanes)	3	6	0	3	7	1	2	0	8	0	2	32	2.91
Bike racks/parking	3	n/a	4	5	1	3	9	1	2	2	6	0	2	35	3.18
Composting	1	3.79 (recycling/composting)	0	0	1	1	1	1	2	1	0	4	7	18	1.64
Drinking fountains	1	3.67 (drinking fountains)	0	8	4	0	5	0	2	1	0	0	5	25	2.27
Implement paid parking	2	4.58 (off-street parking) / 4.08 (on-street parking)	6	1	0	4	1	5	4	0	5	0	1	27	2.45
Kellogg Park improvements	7	n/a	0	7	10	5	9	0	2	7	1	5	7	53	4.82
Parking deck repairs/replacement	5	4.58 (off-street parking) / 4.08 (on-street parking)	6	2	0	9	2	6	4	2	5	0	0	36	3.27
Parking system improvements/strategy	7	4.58 (off-street parking) / 4.08 (on-street parking)	7	3	0	8	2	8	5	2	4	0	0	39	3.55
Pedestrian safety improvements/amenities	5	4.54 (sidewalks/non-motorized) / 4.29 (crosswalks)	0	10	2	6	4	2	3	2	7	0	8	44	4.00
Permanent band stand	1	n/a	0	0	5	2	2	1	1	2	1	0	6	20	1.82
Programming/special events	1	n/a	1	2	4	6	.4	7	0	0	1	0	4	29	2.64
Recycle bins	1	3.79 (recycling/composting)	0	0	2	1	4	0	4	3	0	2	4	20	1.82
Ride sharing program	1	3.25 (ride sharing)	5	4	0	4	3	2	2	0	6	0	1	27	2.45
Security/maintenance	2	n/a	1	5	3	5	6	1	5	1	2	0	1	30	2.73
Shuttle service	2	3.25 (ride sharing)	4	3	0	3	2	1	1	0	3	0	1	18	1.64
Sidewalk repairs	8	4.54 (sidewalks/non-motorized)	0	9	3	7	5	3	4	3	2	1	2	39	3.55
Street improvements	3	n/a	2	3	2	2	3	3	6	1	6	1	1	30	2.73
Street lighting	2	4.42 (streetlights)	0	10	3	7	6	3	6	8	1	1	6	51	4.64
Tree grate repairs	2	3.83 (tree grates)	0	-6	2	3	2	1	4	7	0	3	1	29	2.64
Tree lighting	2	4.67 (trees)	0	3	3	3	4	2	3	10	0	1	0	29	2.64
Tree maintenance/replacement	4	4.67 (trees)	0	3	4	2	6	2	3	6	0	6	1	33	3.00
Underground infrastructure upgrades	2	n/a	0	1	2	1	3	4	8	0	2	1	0	22	2.00
Wayfinding/signage/gateways	5	4.04 (wayfinding signage)	3	9	2	8	3	5	5	2	4	1	4	46	4.18
Others (please note):															-
Public Wi-Fi			0	0	1	1	0	1	0	0	0	0	1	4	n/a
Electric Vehicle Charging Stations			0	0	0	1	1	0	0	0	1	1	1	5	n/a

Colors: Top 5

Figure 3.4: Potential Projects Prioritization – Homework Assignment Responses

4. Chapter 4: Master Plan

4.1 Recommendations

The data collected from the stakeholder engagement questionnaires became the basis for the concept plan development. Question \$\#5\$ asked stakeholders to rate the importance of individual streetscape elements such as trees, bike lanes, street lighting, etc. Trees were ranked the highest, followed by offstreet parking and sidewalks/non-motorized corridors. We found it interesting to note that when responses were provided to the open-ended questions about what was important, trees were not typically mentioned. However, question \$\#5\$ named specific elements and trees received the highest average ranking. Overall, most elements of the City's existing streetscape received rankings of most important or somewhat important. Only elements such as bike sharing and scooter sharing received rankings of somewhat unimportant or unimportant. This data confirms that the City's existing streetscape elements are favored by the majority of people who use the public space. But the data also suggests that certain elements, such as bike lanes, recycling and public art that are not part of the City's streetscape are viewed as moderately important as they relate to the character and desirability of the downtown.

In the paragraphs that follow, we describe the process that we went through to use the data to help shape the 2020 Master Plan. We begin with a description of how we approached the preparation of concept plans and how we identified potential projects.

4.2 Concept Planning & Potential Projects

Following our review of the data, our concept planning approach started with a couple of site visits and walks through the City of Plymouth's Downtown area. We used the information provided by the stakeholders and looked for opportunities to improve on the existing elements found within the streetscape. We also looked at the opportunities to enhance each corridor by adding amenities and assets that the data indicated were missing but desired. We looked at ways to provide continuity across the infrastructure that supports the many functions that occur within the public right of ways in downtown Plymouth. Last, but not least, we reviewed and used the condition assessment data within each corridor to identify general asset categories that need regular maintenance.

An Opportunity Plan was created as a discussion tool and is shown in Figure 4.1. The Opportunity Plan is a graphic that identifies specific opportunities to make improvements within each corridor throughout the downtown. The Opportunity Plan serves as a visual summary of potential projects at various locations throughout the downtown. The Opportunity Plan includes projects such as pedestrian crosswalk improvements and traffic signal improvements at five existing signalized intersections, potential locations for mural walls, areas where street trees can be added, potential mid-block crosswalk locations, proposed areas for streetscape rehabilitation, potential shared street locations (Woonerf) as well as other opportunities.

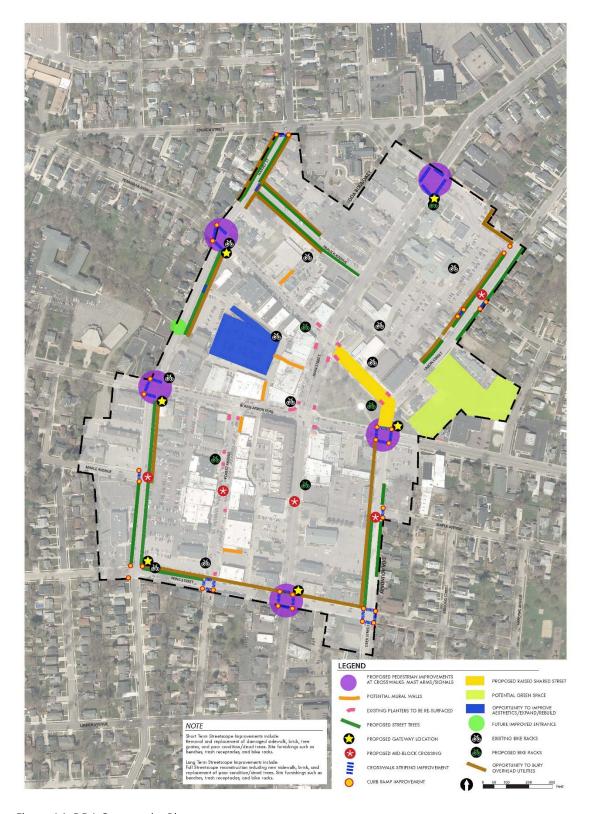


Figure 4.1: DDA Opportunity Plan

4.2.1 – Non-Motorized Plan Development

Building off the data from the stakeholder engagement process, Wade Trim prepared a preliminary non-motorized plan for the City of Plymouth. The stakeholder engagement process identified that sidewalks/non-motorized corridors were the third highest rated asset for the City of Plymouth to have in its downtown area. The average rating of 4.54 out of 5 for sidewalks/non-motorized corridors from the 24 stakeholders that responded was the third highest rating received (behind only trees and off-street parking). This indicates that most stakeholders view non-motorized assets as Highly Important as they relate to the character and desirability of downtown. Bike lanes received an average score of 3.71 out of 5 and provide another complementary indication of the importance of non-motorized transportation. Another important supporting fact from the data is that off-street parking received a higher "importance" rating of 4.58 versus on-street parking, which was a half point lower with an average moderately higher "importance" rating of 4.08. All of this data pointed to the need for the development of a non-motorized plan.

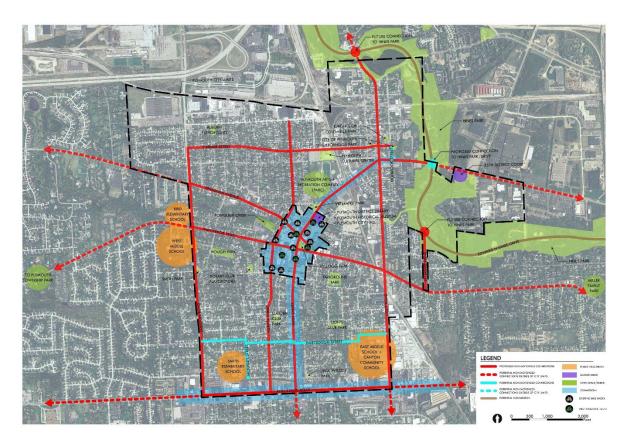


Figure 4.2: Overall Non-Motorized Plan

We recognized that while the focus of this Master Plan is within the DDA boundaries, a non-motorized plan, with bike lanes, should create connectivity on a scale larger than the DDA area. A true non-motorized plan would need to be more encompassing and cover a wider area. The DDA recognized this fact during its discussion of the data in July 2019 and encouraged Wade Trim and the City to take the lead on developing a vision for a non-motorized plan that included downtown Plymouth as one of the key destinations within the non-motorized plan. Thus, a simple non-motorized plan was created for the

greater area surrounding and including the City of Plymouth. This overall non-motorized plan is shown in Figure 4.2. Key corridors for non-motorized travel were identified using the City's street network in conjunction with the surround street network in Plymouth Township. The goal of the non-motorized plan was to illustrate how the connectivity of City and Township neighborhoods, local parks, Hines Park, Plymouth Canton Community Schools, the Plymouth Arts & Recreation Complex and other destinations could complement the idea of being connected to downtown Plymouth. The plan suggested key non-motorized corridors such as Main Street, Harvey Street and Mill Street in the north-south direction and Ann Arbor Trail, Penniman and Farmer as key east-west corridors within the City of Plymouth. Each of these streets is a significant connecting corridor to the City's downtown as well as to the areas surrounding the City. The plan identified connectivity to open space, schools, commercial areas, and government facilities. The non-motorized plan served as the basis for several of the corridor visions and recommendations included in this Master Plan.

Once the framework of the non-motorized plan was in place, we created a Transportation Plan that focused on potential improvements that would affect the moving public. Similar to the Opportunity Plan described above, the Transportation Plan focused on ways to improve the safety and shared interactions between pedestrians walking, bicyclists riding, and vehicles being driven. The Transportation Plan identifies infrastructure improvement projects such as pedestrian crosswalk improvements and traffic signal improvements at five existing signalized intersections, parking areas that require rehabilitation, proposed mid-block cross-walks, proposed shared street opportunities, potential areas for road diets, shared bike lanes, separated bike lanes, proposed areas for additional bike rack locations and areas for converting angled parking into potential back in parking. This DDA Transportation Plan is Figure 4.3.

The topic of back in parking (or Reverse Parking as it is sometimes referred to) was introduced and explained at the November II, 2019 DDA Public meeting when this draft DDA Master Plan was first presented. Back-in parking is aimed at making the environment around the driver safer when the driver leaves the parking space. When a driver has to back out of an existing parking space, the driver often cannot see very well because the driver's view is obstructed by the vehicle next to them. This uncertainty is eliminated with back in parking. A vehicle that has parked by backing in allows the driver and the front of the car to be closer to the roadway that they are going to pull out of the parking space into. The ability of the driver to see where they are going is enhanced. A car that has been parked in reverse (back in parking) allows the passengers to open their doors and go directly toward the curb or sidewalk. When a vehicle drives straight into a parking space front forward, passengers must exit their vehicle toward the road in order to close the door before walking to the curb or sidewalk. Another benefit of back in parking is that pedestrians don't have to enter the roadway to place items such as groceries or other items in their trunks. With back in parking, the tailgate or trunk area of the vehicle is located near the curb so that items can be loaded without going into the street where potential cars are driving past you.

Our Transportation Plan identifies areas along Forest, Fralick and Penniman as potential areas where back in parking should be considered as part of future corridor enhancements. Prior to full implementation of back-in angled parking along these corridors, we suggest educational outreach be completed to the community to explain why back-in angled parking is safer and also show how back-in angled parking should be done. In addition, we suggest a trial run of back-in angled parking occur in a select location downtown prior to considering full implementation.

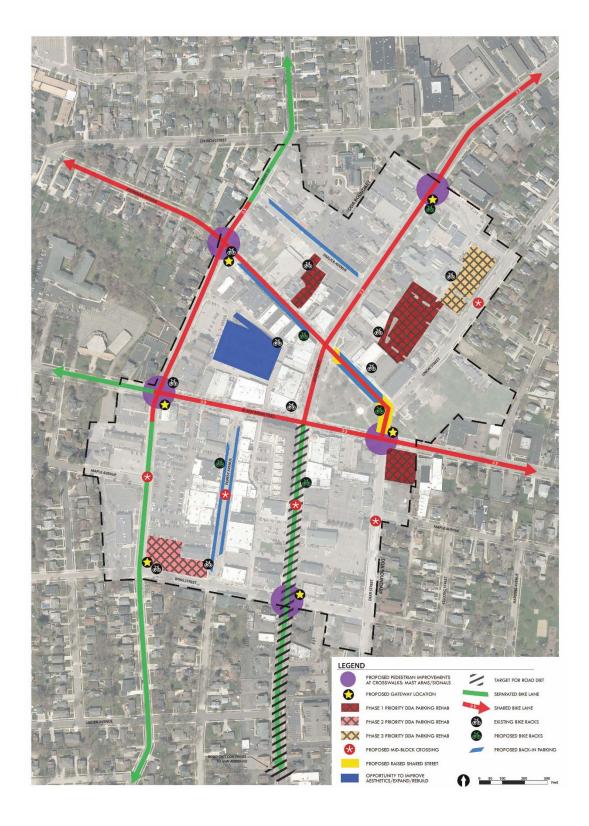


Figure 4.3: DDA Transportation Plan

4.2.2 - Maintenance Projects

Maintenance projects include projects associated with the normal upkeep and repair of existing assets. Projects like brick paver repairs, concrete repairs, street light painting, tree trimming, and re-stripping of parking lots are examples of maintenance projects. Regular maintenance is an important part of an asset management plan. Maintenance tasks that are regular repairs or upgrades should be programmed annually or at an appropriate maintenance interval that matches the asset. A summary of several key maintenance tasks that are common to many of the downtown corridors is presented below:

Brick Paver Repairs

Brick paver repairs have been an ongoing maintenance item for the DDA. The existing pavers can settle or heave, causing trip hazards and depressions that reduce the desirability of the walkable experience in downtown Plymouth. Regular inspection of existing pavers should be performed in the Spring after the frost is out of the ground and temperatures are ambient such that there is no risk of the ground freezing during the re-leveling of the brick paver repair process. Repairs should be scheduled for summer or early fall each year, whenever possible. Repairs will need to be coordinated so as not to affect any public events occurring at the same time or in the vicinity of the repair area.

Concrete Sidewalk Repairs

Similar to brick pavers, concrete can settle or heave over time, especially in areas near existing trees. Concrete is also subject to pitting and other surface wear due to its reaction to salt placed during the winter months. While the DDA can certainly program its own concrete repairs within the DDA boundary, we would recommend that regular concrete sidewalk repairs be coordinated with the City's annual sidewalk and cement repair program.

Re-Stripping of Parking Lots and Streets

Parking lots and parking spaces require symbols and striping to help direct vehicle traffic, bicycle traffic and pedestrians within these shared use spaces. Striped parking spaces identify an organized way for vehicles to park. Striping also provides ways to identify cross walks, and areas where parking should not occur. Symbols are often used to help identify turning movements (i.e. left turn only) or shared use lanes. The City's street right of ways are full of symbols and striping that are used everyday to help traffic and pedestrians move around safely. It is important that the DDA includes re-stripping as part of its annual maintenance program. For efficiency, we would recommend that this maintenance topic be coordinated with the City's Department of Municipal Services, who are responsible for striping within the DDA areas as well as on streets outside the DDA area.

Street Light Painting

Most of the decorative street lights in downtown were installed as part of the original streetscape in 1995. The poles are metal, and metal needs to be painted to prevent corrosion and prolong the life of the street pole. We recommend that each pole is inspected, sanded (as necessary) and painted annually (as necessary).

Tree Trimming

Tree trimming is an essential step in maintaining healthy trees. The majority of the trees throughout the downtown are honey locusts approximately 25 years old.

They are mature and require some annual inspection and maintenance. Dead branches should be removed at the appropriate time of year. This may be something that the City's Department of Municipal Services crews can do as long as they have had some training on how and when to remove dead branches or limbs.

4.2.3 – A Vision for each Corridor

Each corridor within the City's Downtown Development Authority (DDA) boundary is unique and deserves its own vision. In order to separate, organize and present a vision for each segment of street corridor, a color-coded exhibit was created that defines each corridor within the DDA. It is shown as Figure 4.4 and identifies the following 14 corridors:

- Ann Arbor Trail Corridor west of Harvey Street to east of Deer/Union (two-way travel)
- Church Street Corridor west of Main Street to Union Street (two-way travel)
- Deer Street Corridor Ann Arbor Trail to Wing Street (two-way travel)
- Forest Street Corridor Ann Arbor Trail to Wing Street (one-way travel)
- Fralick Avenue Corridor Main Street to Harvey (one-way travel)
- Harvey Street Corridor South Wing Street to Ann Arbor Trail (two-way travel)
- Harvey Street Corridor North Ann Arbor Trail to Church (two-way travel)
- Main Street Corridor North Church Street to Penniman Avenue (two-way travel)
- Main Street Corridor Central Ann Arbor Trail to Penniman Avenue (two-way travel)
- Main Street Corridor South Ann Arbor Trail to Wing Street (two-way travel)
- Penniman Avenue Corridor Harvey to Main Street (one-way travel)
- Penniman Shared Street Main Street to Union (one-way travel)
- Union Street Corridor Ann Arbor Trail to Church Street (two-way travel)
- Wing Street Corridor west of Harvey Street to Deer Street (two-way travel)

It should be noted that the City of Plymouth downtown street network includes two primary alleys as well as the 14 street corridors mentioned above. The first primary alley is known as the Fleet Street Alley. The Fleet Street Alley serves as the major entrance driveway to the City's downtown two-story parking deck. Although not typically used as a direct connection, the Fleet Street Alley connects the Harvey Street North Corridor to the Ann Arbor Corridor. In addition to serving as the major entrance driveway to the parking deck, Fleet Street Alley also serves as a destination hub for visitor parking, a

starting point for pedestrian walkability, and a primary service delivery corridor to many businesses on Ann Arbor Trail, Main Street and Penniman. The Fleet Street Alley was reconstructed within the DDA in cooperation with the City Street Funds in 2016. Fleet Street improvements included a new concrete alley, as well as stamped concrete pedestrian walkways and crosswalks.

The second primary alley within the downtown area runs parallel to Main Street halfway between Main Street and Forest Street and connects Ann Arbor Trail to Wing Street. This alley, commonly known as the Main Street Alley, was also reconstructed in 2016 through a cooperative improvement project with the City. The improvements consisted of a new concrete alley along with new storm sewer to improve drainage in a couple of areas.

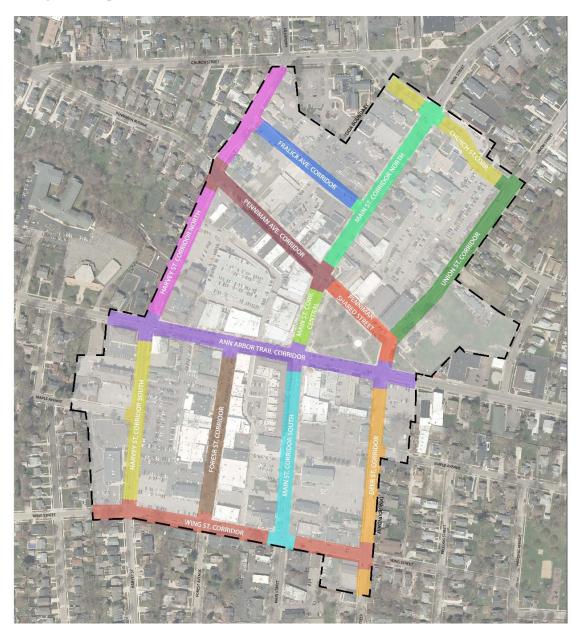


Figure 4.4: DDA Corridors

In the paragraphs that follow, we have prepared a written description of our recommended future vision for each corridor. Recommended improvements are briefly described along with supporting reasons for each recommendation. No priority ranking has been assigned to the improvements at this time, although the data summarized in figure 3.3 above is a good indication of how important various assets are to the stakeholders that participated in the questionnaires. As part of the Master Plan process, we have identified some improvements which are included in each corridor. These improvements include the full removal and replacement of the streetscape sidewalk and decorative pavers, and new street trees. Street trees should be replaced as the existing street trees begin to exhibit signs of poor health. New street trees and tree grates can be added to fill in the gaps between existing street trees and they will be comprised of a diverse mix of species which are tolerable of difficult streetscape conditions. Each street tree will include structural soil underneath the pavement to ensure optimal root growth and tree health and lifespan. A summary of the capital improvement recommendations for each corridor segment is provided below, as well as shown on the Opportunity Plan, Transportation Plan and in some cases individual details, such as the shared street example (woonerf) or road diet (for South Main Street):

Ann Arbor Trail Corridor – west of Harvey Street to east of Deer/Union (two-way travel)

- Ann Arbor Trail's future vision begins by using sharrow symbols to demonstrate that the roadway is a primary east west shared bike lane through the City and downtown. It is envisioned that Ann Trail east and west of the DDA area would be similarly striped with the sharrow symbols, although it may be possible that dedicated bike lanes may fit along those segments. Further evaluation would be required, but our recommended vision would include the shared bike lanes extending from the east edge of the City all the way to Sheldon Road.
- Ann Arbor Trail is home to many restaurants, retail shops and businesses, all of which face Ann Arbor Trail. Parallel parking exists on both sides of Ann Arbor Trail and is envisioned to remain
- Upgrade the Harvey Ann Arbor Trail and Deer/Union Ann Arbor Trail intersections with new Mast Arm Traffic Signals and Pedestrian Activated Crossing Signals. It is envisioned that these would match the existing Traffic Signals at Main Street Ann Arbor Trail.
- Upgrade the Main Street Ann Arbor Trail intersection with pedestrian activated crossing signals and implement the use of a Leading Pedestrian Interval (LPI) as part of the pedestrian signal timing upgrades.
- Planter box resurfacing is envisioned for all planters along this corridor to enhance the aesthetics of these prominent streetscape elements.
- Harvey Ann Arbor Trail and Deer/Union Ann Arbor Trail are potential areas for gateway signage or features which would signify the entrance to the downtown area.

Church Street Corridor – west of Main Street to Union Street (two-way travel)

- Significant pavement and lighting improvements were completed on Church Street west of Main Street by the City in 2015. This boulevard section of roadway was completely reconstructed and slightly shifted to add ADA compliant sidewalk on the north side of Church Street.
- Church Street east of Main Street has several key functions which we envision will remain in use. The Street portion itself serves as an east west connecting street between Main Street and Union Street. It also serves as the primary parking area for City Hall, located at 201 South Main Street, as well as an ingress/egress area for the City of Plymouth's primary Fire Station that is part of the

- cooperative Northville City Fire Department.
- The future vision for this corridor includes the upgrade of the Main Street Church Intersection with new Mast Arm Traffic Signals and Pedestrian Activated Crossing Signals. It is envisioned that these would match the existing Traffic Signals at Main Street Ann Arbor Trail.

Deer Street Corridor – Ann Arbor Trail to Wing Street (two-way travel)

- Deer Street is only two blocks in length, but serves as an important north south street parallel to Main Street. It is a key component of the City's downtown event detour plan.
- Deer Street provides on street parking along the east side.
- Deer does not currently have many streetscape elements along the eastern edge of the DDA. It is the eastern transition boundary from the DDA into the residential neighborhoods to the east and southeast of the downtown area.
- The primary improvement recommendations for this corridor include the opportunity to bury existing overhead utilities on the west side of Deer Street. This would allow for the potential placement of street trees along this corridor.

Forest Street Corridor – Ann Arbor Trail to Wing Street (one-way travel)

- Forest Street is a long (essentially two City blocks) one-way southbound segment of roadway that connects Ann Arbor Trail to Wing Street. It is a key part of the shopping and restaurant district in downtown Plymouth. All of the retail stores, restaurants and businesses face Forest Street. Angled parking is available on both sides of Forest.
- The future vision for Forest Street includes a mid-block pedestrian crosswalk approximately halfway between Ann Arbor Trail and Wing. A mid-block crosswalk would improve the safety of the pedestrian experience on this corridor. While this corridor has a very pedestrian feel, there are few opportunities to safely cross this two-block segment of roadway without walking between parked cars on both sides and one lane of traffic.
- Forest's future vision includes the conversion of the existing angled parking to back in parking.
- Planter box resurfacing is envisioned for all planters along this corridor to enhance the aesthetics of these prominent streetscape elements.
- The existing sprinkler system does not work along this corridor.

Fralick Avenue Corridor - Main Street to Harvey (one-way travel)

- Fralick serves as an important connecting street (i.e. a bi-pass of sorts) for SB Main Street traffic to get to Harvey Street without going all the way into the busier Ann Arbor Trail and Main Street intersection.
- Fralick's future vision includes the conversion of the existing angled parking to back in parking.
- Fralick is also an important street during many of the City's larger events, such as Art in the Park and the Fall Festival, because it serves as a key segment of the City's detour route around the downtown area.

Harvey Street Corridor South – Wing Street to Ann Arbor Trail (two-way travel)

- Harvey Street south of Ann Arbor Trail is an important north south roadway along the western boundary of the DDA. This segment of roadway leads to public parking at the northeast corner of Wing and Harvey. Harvey Street is three lanes wide from Wing to Ann Arbor Trail, including one lane in each direction and a left center turn lane.
- Harvey's future vision begins by using sharrow symbols to demonstrate that the roadway is a primary north south shared bike lane consistent with the recommended non-motorized plan. It is envisioned that Harvey Street north and south of the DDA area would be similarly striped with the sharrow symbols to serve as additional connecting segments from the residential neighborhoods into or through downtown.
- A mid-block crosswalk could be added at Maple Street to provide an additional safe crossing location to the downtown from the residential neighborhoods to the west.

Harvey Street Corridor North - Ann Arbor Trail to Church (two-way travel)

- Harvey Street north of Ann Arbor Trail is an important north south roadway along the western boundary of the DDA. This segment of roadway leads to the primary entrance into the City's two-story parking deck. Harvey Street is three lanes wide from Penniman to Ann Arbor Trail, including one lane in each direction and a left center turn lane.
- Overhead utility poles exist on the east side of Harvey. The opportunity to bury these overhead utilities would provide an opportunity to add some much needed street trees along this corridor.
- Key intersection upgrades at Penniman Harvey and Ann Arbor Trail Harvey should include new Mast Arm Traffic Signals and Pedestrian Activated Crossing Signals. It is envisioned that these would match the existing Traffic Signals at Main Street Ann Arbor Trail.
- Harvey and Penniman is another location for a potential gateway signage or features which would signify the entrance to the downtown area.

Main Street Corridor North - Church Street to Penniman Avenue (two-way travel)

- Main Street is an existing four lane roadway from Church to Penniman. This section of roadway
 is the front door for City Hall and contains a mixture of public, historic and commercial
 buildings.
- The existing streetscape includes street trees, sidewalk, decorative light poles and brick pavers.
- Main Street north of Penniman is a potential candidate for a road diet, which would reduce the vehicle lanes from 4 to 3 and allow the opportunity to add dedicated bike lanes in each direction. This study did not include the evaluation of this option. This option should be further evaluated before being implemented.
- Per the recommended Non-Motorized Plan, this section of Main Street is envisioned to serve as a key north south shared use bike lane route using the sharrow symbols in the outside lanes.

Main Street Corridor Central - Ann Arbor Trail to Penniman Avenue (two-way travel)

 Main Street between Ann Arbor Trail and Penniman is perhaps the most recognized segment of street in the downtown. It is currently a four-lane boulevard roadway with two lanes of travel in the north south direction. The boulevard

- island contains a mid-block crosswalk that connects Kellogg Park to the City's Central Parking Deck. Parallel parking exists on both sides of the roadway.
- The existing streetscape of both sides of the roadway includes street trees, sidewalk, decorative light poles and brick pavers.
- Portions of the streetscape on the west side of this roadway segment are used for outdoor seating, however the outdoor seating is not consistently located in the same area of the public right-of-way. Some of the outdoor seating is close to the restaurants, while other areas have the outdoor seating closer to the curb and parking spaces. We recommend the outdoor seating closer to the curb and parking spaces to allow less restricted and more consistent pedestrian movements throughout this area. However, we understand this may not be achievable in all situations due to site specific restraints.
- On the east side of this corridor bordering Kellogg Park, we have identified this wider sidewalk as an opportunity to improve the aesthetics and function of this key pedestrian space. We have referred to this space as the park promenade; improvements could include new pavers designed with a pattern/accents and backed/backless benches throughout this space.
- Per the recommended Non-Motorized Plan, this section of Main Street is envisioned to serve as a key north south shared use bike lane route using the sharrow symbols in the outside lanes.

Main Street Corridor South - Ann Arbor Trail to Wing Street (two-way travel)

- Main Street south of Ann Arbor Trail is an existing four lane roadway providing north south vehicle traffic into and out of downtown.
- The existing streetscape of both sides of the roadway includes street trees, sidewalk, decorative light poles and brick pavers, however, however, this section of Main Street lacks a pedestrian feel.
- Main Street from Ann Arbor Trail to Ann Arbor Road has been evaluated and recommended as a candidate for a road diet. A road diet would reduce the four-lane vehicle section to 3 lanes, with one northbound and one southbound travel lane along with a left center turn lane. The road diet would provide the opportunity to add dedicated bike lanes in each direction. Figure 4.5 below shows what this road diet would look like upon completion.
- Upgrade the Main Street Wing intersection with new Mast Arm Traffic Signals and Pedestrian Activated Crossing Signals. It is envisioned that these would match the existing Traffic Signals at Main Street Ann Arbor Trail. These upgrades would improve pedestrian safety and ADA compliance.



Figure 4.5: Main Street Proposed Road Diet Cross Section (note: graphic to be updated with current bike lane dimensions)

Penniman Avenue Corridor – Harvey to Main Street (one-way travel)

- Penniman Avenue is a primary one-way eastbound segment of roadway that brings residents and visitors to downtown Plymouth from the west. This segment of Penniman connects Harvey to Main Street. It is a key part of the shopping and restaurant district in downtown Plymouth. All of the retail stores, restaurants and businesses face Penniman Street. Angled parking is available on both sides of Forest. Penniman provides the only access point to the public Penniman Parking Lot between Penniman and Fralick.
- This corridor has a very pedestrian and walkable feel. There are opportunities to safely cross this segment of roadway at each end of this corridor.
- Penniman's future vision includes a recommendation for the possible conversion of the existing angled parking to back in parking, which would make it safer for the addition of a shared use bike lane (one way) as part of the City's non-motorized transportation plan.
- Planter box resurfacing is envisioned for all planters along this corridor to enhance the aesthetics of these prominent streetscape elements.
- Harvey and Penniman is another location for a potential gateway signage or features which would signify the entrance to the downtown area.
- In the short term, this segment of Penniman has been targeted for streetscape rehabilitation.

Penniman Shared Street - Main Street to Union (one-way travel)

- Penniman Avenue from Main Street to Union is currently a one-way roadway segment and serves as a continuation of the one-way segment from Harvey to Main.
- Both sides of Penniman contains angled parking. There is an opportunity to change this parking to back-in angled parking to improve safety. Public education and descriptive signage would be required to ensure the success of back-in angled parking in this location. There is also an

- opportunity to change the north side from back-in angled parking to parallel parking; this would provide additional green space along the north side of Kellogg Park.
- Planter box resurfacing is envisioned for all planters along this corridor to enhance the aesthetics of these prominent streetscape elements.
- The future vision for Penniman from Main Street to Union is as a shared street (Woonerf) in conjunction with the shared street concept that has been proposed for Union Street between Ann Arbor Trail to Penniman. This shared street would raise up the roadway, essentially eliminating the curb. The roadway would be replaced with bricks over a concrete base. This aesthetic solution would tie into the character of downtown and Kellogg Park. See Figures 4.5 and 4.6 for perspective renderings of what this shared street vision could look like upon completion.
- Removable bollards would be placed at the limits of Main Street and Union to allow for
 Penniman to be closed to vehicular traffic during events. These bollards would be crash-rated to
 ensure the safety and protection of pedestrians. Removable bollards would also be placed
 adjacent to the parking spaces in lieu of the traditional curb which was eliminated. During
 events, these parking space bollards would be removed to allow for the free-flowing use of the
 street by pedestrians.
- Trench drains with ADA accessible grates would be added along the edges of the roadway to address stormwater runoff.



Figure 4.6: Rendering of Penniman Shared Street during normal use



Figure 1.7: Rendering of Penniman Shared Street during an event

Union Street Corridor - Ann Arbor Trail to Church Street (two-way travel)

- Union Street is an existing two-way street between Ann Arbor Trail and Church Street. It serves as a portion of the eastern border of the DDA District. It has residential feel along the east side starting with the historic Wilcox home that has been converted to a business use.
- There is extensive green space surrounding the historic Wilcox home that would be an awesome
 extension of future park space and green space in downtown Plymouth. While we know that
 this space is privately held, we feel that the opportunity to add this land as additional green
 space would further enhance the City's downtown and provide another destination for public
 use and enjoyment.
- The future vision for Union from Ann Arbor Trail to Penniman is as a shared street (Woonerf) in conjunction with the shared street (Woonerf) concept that has been proposed for Penniman between Main Street and Union.
- Removable bollards would be placed at the limits of Penniman Street and Ann Arbor Trail to allow for Union Street to be closed to vehicular traffic during events. These bollards would be crash-rated to ensure the safety and protection of pedestrians.
- Trench drains with ADA accessible grates would be added along the edges of the roadway to address stormwater runoff.
- Upgrade the Deer/Union Ann Arbor Trail intersections with new Mast Arm Traffic Signals and Pedestrian Activated Crossing Signals. It is envisioned that these would match the existing Traffic Signals at Main Street – Ann Arbor Trail. Remove the existing "Left Turn Only" signs on Deer/Union going northbound and southbound at that intersection.

- The northern end of Union has existing overhead utilities along the west side adjacent to the Library parking lots. There is an opportunity to bury the overhead utilities in this area and plant additional street trees.
- Planter box resurfacing is envisioned for the two planters at the Penniman intersection.

Wing Street Corridor – west of Harvey Street to Deer Street (two-way travel)

- Wing Street is an existing two-way street between west of Harvey Street to Deer Street. It serves as the southern border of the DDA District. It has mainly commercial uses along the corridor with a few residential houses near the west side.
- The primary improvement recommendations for this corridor include the opportunity to bury existing overhead utilities on the north side of Wing Street. This would allow for the potential placement of street trees along this corridor.
- Wing does not currently have many streetscape elements along the southern edge of the DDA. It
 is the southern transition boundary from the DDA into the residential neighborhoods to the
 south of the downtown area.
- Parking currently exists on both sides of the street for the majority of this corridor.
- Crosswalk striping and ADA ramp improvements are suggested for each street intersection within this corridor.
- The Wing Harvey intersection is a potential area for gateway signage or features which would signify the entrance to the downtown area.

4.2.4 - Parking Lot Improvement Recommendations

In addition to the corridor improvements, the DDA is responsible for six surface parking lots within the district, as well as the parking deck. A summary of our recommendations based on the PASER condition of each lot is presented below:

Fleet Street Parking Deck

Wade Trim did not evaluate the structural integrity of the parking deck as part of this Master Plan. We did however rate the condition of the asphalt pavement under the deck. A PASER rating of 5 was assigned to this surface pavement representing a fair condition rating. This pavement likely has several (7 to 10) years of useful remaining life. We recommend that the DDA consider setting aside funds in a reserve account for future resurfacing.

Surface Parking Lots

Our recommendations for the six surface parking lots, along with their current condition rating are provided below:

1. Gathering Parking Lot - the concrete in this covered surface parking area is in good condition and received a PASER rating of 8. This pavement should be monitored for minor routine maintenance and potential crack sealing of any exposed joints.

- 2. North Library Parking Lot this asphalt parking lot is in fair condition with a PASER rating of 5. Minor patching and preservation techniques should be utilized to prolong the life of this pavement.
- 3. Public Parking at Wing & Harvey (NE Corner) this asphalt parking lot is in poor condition with a PASER rating of 4. This parking lot should be resurfaced in the near future.
- 4. Saxton's Parking Lot this asphalt parking lot is in very poor condition with a PASER rating of 2 and requires reconstruction. We would recommend that this parking lot be improved after the Jewel Maple Project has been completed or nearly completed so that the improvements can be coordinated with the potential development.
- 5. Penniman Parking Lot this asphalt parking lot is in very poor condition with a PASER rating of l and requires reconstruction in the near future.
- 6. South Library Parking Lot this asphalt parking lot is in very poor condition with a PASER rating of 1 and requires reconstruction in the near future.

Section 4.3 below (Asset Management Program) contains the anticipated costs, in 2020 dollars, associated with these visions and improvements identified for each corridor.

4.2.5 - Opportunities to Add Public Art

Public Art was identified as an important asset that should be part of the City's streetscape. The Opportunity Plan presented as Figure ____ contains several locations where mural walls could potentially be incorporated into the existing downtown environment. Five proposed mural wall locations have been identified in the following potential locations:

- On Penniman, on the west facing wall of the Post Local Bistro building.
- On the walls along the pedestrian corridor and ramp from the City Parking Deck to Main Street.
- On or near the entrance to Fleet Street, on the east facing wall of the Ironwood Grill building.
- Near the corner of Ann Arbor Trail and Forest, on the west facing wall of the Edible Arrangements building.
- On Forest, on the south face of the 585 Forest Building, currently occupied by Pure Barre.

Mural walls would require coordination between the City and the property owner. We envision that each mural would be approved through a permit application process. Over time, it is envisioned that the murals could change via the permit process or be maintained and become "identifiable pedestrian destinations" throughout the downtown.

4.3 Asset Management Program (Anticipated Costs)

The anticipated improvement costs for these corridors have been separated between short-term annual maintenance tasks and capital improvement projects for each corridor listed previously. The short-term annual maintenance tasks generally consist of maintenance and repair work required on a yearly basis. Some of the items listed in these categories will not require yearly repair, but we have prorated these costs out for each year to be able to provide this estimated yearly budget. Elements within this task include removal and replacement of street trees and tree grates, tree trimming, planter box maintenance, landscape restoration, removal and replacement of damaged concrete sidewalk and decorative pavers, removal and replacement of site furnishings/amenities (bike racks, benches, litter bins, etc.), irrigation

repair, removal and replacement of curb and gutter, crosswalk and pavement marking restriping, bumper block replacement, sign maintenance, resealing and restriping parking lots, painting light poles, and miscellaneous utility repairs.

The capital improvement projects are larger scale improvement and reconstruction projects. These long-term projects will provide more noticeable upgrades to the corridors. Due to the nature of these projects, they will also be more disruptive to the adjacent business owners and community. These projects focus on areas outside the roadway, except for the roadway reconstruction for Harvey which is included. These projects include, but are not limited to roadway reconstruction, full removal and replacement of concrete sidewalk and decorative pavers, structural soil for tree plantings, burying overhead utility lines, shared street reconstruction, planter resurfacing, midblock crossings, intersection mast arms and ADA ramp improvements, wayfinding signage, street trees and new landscape planters, site furnishings (benches, litter bins, bike racks, drinking fountains, etc.), street light fixture upgrades to LED, gateway sculptures/signs, and other beautification elements (painted murals, utility box beautification, etc.).

The cost summary of these short-term annual maintenance tasks and capital improvement projects by each corridor is listed in Figure 4.8. The complete breakdown of these costs can be found in Appendix C.

Corridor Name		Cost
Ann Arbor Trail	\$	108,970.12
Church Street	\$	71,243.20
Deer Street	\$	73,249.40
Forest Street	\$	76,192.76
Fralick Avenue	\$	59,379.60
Harvey Street South	\$	67,179.84
Harvey Street North	\$	88,799.20
Main Street North	\$	80,756.48
Main Street Central	\$	47,802.72
Main Street South	\$	76,051.64
Penniman Avenue	\$	73,130.40
Penniman Avenue Shared Street	\$	53,870.04
Union Street	\$	78,498.84
Wing Street	\$	94,028.76
Short Term Estimated Total (All Corridon		\$1,049,153.00
Short Term Estimated Total (All Corridon Capital Improvement Projects		
Short Term Estimated Total (All Corridor Capital Improvement Projects Corridor Name	rs):	Cos
Short Term Estimated Total (All Corridor Capital Improvement Projects Corridor Name Ann Arbor Trail	\$	Cos: 2,036,303.97
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street	\$ \$	Cos 2,036,303.97 265,239.33
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street Deer Street	\$ \$ \$	2,036,303.97 265,239.33 558,705.23
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street Deer Street Fralick Avenue	\$ \$ \$ \$	2,036,303.97 265,239.33 558,705.23 899,037.22
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street Deer Street Fralick Avenue Forest Street	\$ \$ \$ \$ \$ \$ \$ \$	2,036,303.97 265,239.33 558,705.23 899,037.22 704,598.77
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street Deer Street Fralick Avenue Forest Street Harvey Street South	\$ \$ \$ \$ \$ \$ \$ \$ \$	2,036,303.97 265,239.33 558,705.23 899,037.22 704,598.77 1,198,517.60
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street Deer Street Fralick Avenue Forest Street	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2,036,303.97 265,239.33 558,705.23 899,037.22 704,598.77
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street Deer Street Fralick Avenue Forest Street Harvey Street South	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2,036,303.97 265,239.33 558,705.23 899,037.22 704,598.77 1,198,517.60
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street Deer Street Fralick Avenue Forest Street Harvey Street South Harvey Street North	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2,036,303.97 265,239.33 558,705.23 899,037.22 704,598.77 1,198,517.60 2,018,203.44 1,211,003.27
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street Deer Street Fralick Avenue Forest Street Harvey Street South Harvey Street North Main Street North	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2,036,303.97 265,239.33 558,705.23 899,037.22 704,598.77 1,198,517.60 2,018,203.44 1,211,003.27
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street Deer Street Fralick Avenue Forest Street Harvey Street South Harvey Street North Main Street North Main Street Central	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2,036,303.97 265,239.33 558,705.23 899,037.22 704,598.77 1,198,517.60 2,018,203.44 1,211,003.27 266,577.58 1,150,485.86
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street Deer Street Fralick Avenue Forest Street Harvey Street South Harvey Street North Main Street North Main Street Central Main Street South	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	265,239.33 558,705.23 899,037.22 704,598.77 1,198,517.60 2,018,203.44 1,211,003.27 266,577.58
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street Deer Street Fralick Avenue Forest Street Harvey Street South Harvey Street North Main Street North Main Street Central Main Street South Penniman Avenue	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2,036,303.97 265,239.33 558,705.23 899,037.22 704,598.77 1,198,517.60 2,018,203.44 1,211,003.27 266,577.58 1,150,485.86 1,333,977.56
Capital Improvement Projects Corridor Name Ann Arbor Trail Church Street Deer Street Fralick Avenue Forest Street Harvey Street South Harvey Street North Main Street North Main Street Central Main Street South Penniman Avenue Penniman Avenue	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2,036,303.97 265,239.33 558,705.23 899,037.22 704,598.77 1,198,517.60 2,018,203.44 1,211,003.27 266,577.58 1,150,485.86 1,333,977.56 2,314,750.45

Figure 4.8: Corridor Cost Summary for Short Term Annual Maintenance Tasks and Capital Improvement Projects

\$16,300,618.23

Estimated Grand Total (All Corridors):

Appendix A

Plymouth DDA Master Plan Questionnaire Full Questionnaire Results Summary (page 1)

							usin				tance of the fo = Moderately I										
y #	Q1 - Which existing assets are most valuable?	Q2 - Which existing assets are not valuable, need improvement or could be removed?	Q3 - Which public amenities do you hope to see integrated inot the City's downtown in the future?	e Q4 - What improvements or future amenities do you view as the highest priority?	Bike Str	n- Off- eet Street ting Parking	Ride Sharing	Traffic Signal Cr			Environ- mentally Friendly	Tree	Sidewalk Non- es motorize	Wayfinding d Signage	Recylcing Compost ing	/	Seating & Gathering Areas	Drinking	Bicycle Scoote sharing sharin	Electri r Vehicl g Plug ii	Additional Comments
	1) Kellogg Park, 2) Walkability of DDA, 3) Parking Deck, 4) Trees and lighting	1) Sidewalks (fix tree grates and trip hazards), 2) Parking Deck (Plan for new three level), 3) DDA lighting and electrical (three phase?)	Removable or automated traffic barrier for Penniman (concerts or other events), 2) Upgraded sound system in Kellogg for better sound quality without such a high volume	Sidewalk trip hazards (tree grates), 2) Sidewalk trip hazards (tree grates), 3) DDA twinkle lights on every tree in DDA for uniformity					3	5	3	3 5	Corridor 3			4		5	2 1	Station 3	As we are planning for the future, we cannot lose sight of the infrastructure that we cannot see. We must plan appropriately timing and funds to not sacrifice quality of utilities that are out mind (DDA wiring for lighting and water system) for things that instant gratification (repainting old items). We must also start I at the long term budgeting for items like the parking deck that help our future co-workers
	The parking deck, fountain, gathering, green space in Kellogg and utilities	The public restrooms are a nightmare (lack stainless steel for easy cleaning). The Main St. Islands need to be spruced up (new dirt or layout of plantings). The wood on the gathering is in need of replacement. The utilities need to be replaced (sprinklers in Kellogg, as well as spigots throughout downtown), electrical in Kellogg park (including the speakers); location of the big junction box in front of the bandshell, abilty to plug in the bandshell and PA system in the street is missing. Sidewalks need a comprehensive overhaul. Large scale tree trimming program, starting in Kellogg Park.	In ground barricades especially at Main & Penniman to use for easy and efficient road closures. WI-FI throughout downtown; heated parking deck surface; increased sound coverage in Kellogg Park; finish installatio of twinkle lights in all trees; new holiday decorations.	They need to be taken out and replanted with tree pits or some other	r																While the fountain is certainly the centerpiece, the infrastruct must be taken care of first. Before anyting can be added, chan etc., the foundation of any addition, change, etc. will not work not be sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the infrastructure is what powers everything of the sexy, but the sexy is the sexy i
	Kellogg Park is the center piece of downtown and is the number one asset. Underground infrastructure: Water system, sewer system, storm drains, DDA water system, DDA electrical system. Infrastructure: Roads, sidewalks, parking system, trees, lighting.	streetscape throughout downtown needs heavey maintenance or	events. Sidewalk widening and adding bike lanes. Add trees, replace	r 1) Repair or replace underground infrastructure - water, sewer, stori electric 2) Repair or replace street scape - sidewalks, streets, trees, g benches, drinking fountains, lights signs 3) Replace parking dec		4	3	4	5	5	3	5 3	5	5	3	5	5	5	3 3	3	Focus on maintaining and replacing the current infrastructure Replace with materials and products that provide the best vali just the cheapest or easiest option.
A	Parking Deck & Parking Inventory	Kellogg Park needs improvement	Better wayfinding for parking	 Parking - need strategy for parking. Kellogg Park renovations Sidewalk repairs. 																	
	The park, flowers, trees, pedestrian availability & general aesthetic of the downtown	Crosswalks & pedestrian signals need work @ various intersections: Church/Harvey, Penniman/Church, etc	Composting & organization/incorporation with business	Street signs, crosswalks, additional safety features for pedestrians Composting 3) Parking/Bike racks	4 5	5	3	5	5	5	5	1 4	5	4	5	5	5	3	2 2	5	
	Kellogg park, Saxtons, Central Parking Deck, Gathering	Central Parking Deck, Gathering & Saxtons need improvement. Remove tree lighting	More bike racks, electronic vehicle charging stations, integrated LED lighting, pedestrian walking mall concepts on some streets	Disconting Streaming blee racks Bike racks 2) Kellogg Park - not just fountain, but a refresher of the park 3) Parking Deck	e 3 4	4	1		3	4	4	1 3	5	4	3	3	4	4	1 1	4	
	Roads, underground utilities, sidewalks, DMS equipment Kellogg Park	I believe they are all valuable	New signage, artwork, sculptures, additional public restrooms	Paid parking, 2) Roads, 3) Underground utilities Parking and walking cross lights	3 5	5	5	3	5	5 4	4 5	5 4	5	5	4	4	4	4	3 3 1 1	3	Environmentally friendly lighting needs to look beyond costs
																					impact to impact of garbage light which is harmful to animals humans circadian rhythms and health. Electric cars create menvironmental damage than diesel car by 30% to 60% accord German studies. Via rare earth mineral extraction and production/transmission of electricity.
	Parks/Trees/Parking Kellogg Park, landscape and hardscape that contribute to walkability, wayfinding signage	Kellogg Park needs improvement, parking needs improvement	Additional parking garage Bike lanes, wi-fi, elcectric car ports/plug-ins. Additional wayfinding	Parking, 2) sidewalks/non-motorized corridors and bike lanes, 3) Kellogg Park	5 5	5	4	3	3	3	5 4	5 4	5	5	5	3	3	3	3 3 4 2	5	Although it seems contradictory, we need to improve the par inventory while also improving the great walkability of down
	Parking lots	Bricks along sidewalks could be stained to restore color		More parking, more enforcement, trucks spending time on fralick should be limited. No truck standing in certain areas	3 5	5	3	4 4	5	5 5	3 4	4 3 4	5	5 4	4 4	4	5	5	2 2 4 4	4	City needs more parking (structures?). Many workers park in Presbyterian lot. At some point they may restrict this. Make Fralick 3 hour parking (not 8 hour parking). Move mailboxes congestion on Fralick. Make a dedicated unloading zone for t Penniman. Trucks all park on Fralick to unload.
	stay for a while, 3) bring convenience to our visitors, 4) help maintain a clean and tidy downtown area and 5) maintain the charm and	Tree grates and some pavers throughout the district are getting very tired and some are dangerous. Poles that hold advertising banners or the light poles are often not in good repair. Public restrooms need some attention.	bike lanes and more bike racks - it is scaryto ride a bike in downtown.			5	4	5	5	5	5	5 4	5	5	5	3	4	4	3 1	3	
	Kellogg park, the fountain, the Penn Theatre, theclock, trees, tree grates, the Gathering, drinking fountain, parking deck and parking spaces.		Permanent bandstand, More crosswalks, bike racks, an infrastructure that supports pedestrians, bikes and ride sharing. Are we prepared fithe future? Need more Art and nod to our history.	Upgrade to Kellogg Park and the fountain. Permanent band stand. or Crosswalks and improved "arrival points" to the City.	5 3	3	4	4	5	5	5	5 4	4	4	3	4	5	4	4 2	4	Overall, I don't feel that there are good welcoming points of a the City. No sense of arrival from an entry point. Our curren bandstand takes up parking spaces at the busiest times of the therefore why not re-design Penniman or Union and Kellogg that has a permanent bandshell with all of the necessary hool (see City of Marietta, CA). Our neighborhoods are not well cot the DDA District, therefore, we must have proper lighting/signage/crosswalks connecting the DDA to all surroun neighborhoods. Kellogg Park needs to be updated to withstar wear and tear it takes on a regular basis.
	Kellogg Park, Parking Structure	Parking lots need improvement. Trees need replacement.	Upgrades to Kellogg Park	Upgrades to Kellogg Park. Implentation of a paid parking system to eventually increase parking inventory. Tree replacement.	2 4	5	4	4	5	4	4	5 5	2	2	2	5	2	2	2 2	4	
	The park in general is a vital asset, in addition to wide sidewalks around the core downtown to make it walkable.		wants/desires, i.e. EV stations and density planning. I do not want th City to become a place that restricts movements of traffic (by car or foot), so there should be limits to the "amount" of amenities that	We need to maintain the downtown core as a draw for people no e matter why they are comling to town. That being said, parking in town needs to be the priority regardless of where the location is. A focus should be placed on how most people come to town, i.e. are ethey Plymouth residents that walk/ride to downtown or nonresident that drive in. Improvements should be focused on making sure thes groups can get/stay in downtown - that my include improvements to sidewalks along the route, parking, etc.	S	5	3	4	4	4	5	5 4	5	4	5	4	5	4	1 1	5	1) Any public art installations that are incorporated should be interactive in nature. This would allow families to play and en art that is a draw to Kellogg Park for things other than Music in or festivals. 2) WI-Fi capabilities would also start to distinguisd downtown from other areas with a lead in page for gaining ac the DDA or other applicable City pages. This could then pull redollars based on the ads for that initial access page. WI-Fi wou making reservations at restaurants and looking up the next ev town (easier). 3) I have received thoughts from other citizens following (I provide no personal thought on these items, but if for completeness of a response - outdoor ice rink in the winte concerns on the zoning that allowed a real estate office to occ prime space at Main/Ann Arbor Trail.

Plymouth DDA Master Plan Questionnaire Full Questionnaire Results Summary (page 2)

				Q5 - Please rate the level of importance of the following assets as they relate to the character and desirability of downtown using a scale of 5 = Highly Important, 4 = Moderately Important, 3 = Neutral, 2 = Moderately Unimportant, and 1 = Highly Unimportant																	
	O2 Which evicting assets are not reliable most improvement or	O2 Which mublic amonistics do you have to see intermeted in at the	Q4 - What improvements or future amenities do you view as the			using	g a scale of 5	5 = Highly Ir	mportant, 4	= Moderately	y Importan	t, 3 = Neutr	al, 2 = Modera	tely Unimpo	rtant, and	1 = Highly (Unimporta	nt			
# Q1 - Which existing assets are most valuable?	could be removed?	City's downtown in the future?	highest priority?		eet Street king Parkin	Ride Sharing Menities		Crosswalks	Streetlights	mentally Friendly	Trees Gra	ree No ates motor		Recylcin Compose ing	Public Art	Seating & Gathering Areas	Drinking Fountains	Bicycle s sharing	Scooter sharing	Electric Vehicle Plug in	Additional Comments
Walkability of the downtown. The ease of traffic flows and easy adaptation of the traffic flows to accommodate special events and to make those events more walkable.	General infrastruture of downtown needs a significant "refresh" in order to continue to be a viable downtown. It is time to upgrade the lighting systems, including the tree lighting. Stringing of Knistmas lights and maintaining them creates an unclean look for the downtown. You have extension cords hanging from the trees over to the street light poles, that look is unfinished. The street lights are worn and not producing the designed amount of lumens. There is a further need to have the street lights upgraded to LED. The big cement flower boxes need updating or improvement, perhaps some type of public art could be put on those planter boxes. Those boxes are also in need or repair. Curbs, guttler and brick work all needs updating. The trees are now too large for the available space are causing sidewalk upheaving as there is no regular water available for the root systems.	planters and tree areas as well as set up for maintenance of the downtown accommodate power washing, etc.). Some public Art would be good to incorporate into downtown. It should be noted that no one will agree on the Art, so we should be aware of that on the front side. Unfortunately, doue the times we live in, there is a need to incorporate security systems into a nidesign. This would include high quality video systems throughout the downtown, perhaps emergency assistance poles with AED access, there needs to be a way to close off certain streets (Penniman in front of Jimmy Johns is one example) to avoid having evhicles enter those streets intentionally or unintentially. This would perhaps include some type of roadway bollard that could be installed in the ground and activated remotel on an as needed basis. This would help eliminate the stacking of barricades	e heaving of sidewalks from trees that are too large for the space. Increase security in the downtown. exercises	2	5 5	4	5	5	5	5	4		4	4	4	4	4	3	2	1	
Parking deck, Kellogg Park, the Gathering, the band shell and Main street		would make sititng in the park more enjoyable. The grass in Kellogg	1) Landscape, 2) Infrastructure (roads, parking deck, Gathering), 3) making roads safer for cyclists by adding bike lanes.	5	2 4	3	3	4	5	5	5	3 5	5	5	2	5	5	5	1	c v	Downtown Plymouth is beautiful and inviting. Thank you for all do to help it stay that way. I love the new business that is comi way. I love Bigadora, RSVP, Michigan Store, new restaurants, e Thank you for supporting them.
Kellogg Park - the space, the coordination with the surrounding businesses, the fountain, the grand stand, the pathways. The central parking deck - extremely important in providing a density of parking that is controlled by the city. The DDA staff.		Recycling bins, rooftop seating, bike lanes and shuttle services.	Recycling bins, shuttles services and bike lanes	5	2 4	4	3	5	4	5	5	4 5	5	5	3	4	2	4	4	4	
1) No Fee Parking 2) Kellogg Park (and downtown events) 3) Main Street Business sidewalk 4) Penn Theatre	Repair sidewalks. Entry in to shopping from central parking deck need upgrade (i.e. Art and Painting). Saxton Building needs to be removed.		Increase parking. Bike routes. Fleet Street décor and comformaty (?) design look, tell store or welcome. Shuttle to town to help parking of site.		4 5	5	3	4	4	4	4	4 4	4	4	5	5	4	5	4		Product manufacturers now restricting distribution because of parking. This will restrict growth of retail in downtown.
Kellogg Park, Sidewalk Café's, pedestrian crossings on Main and AA Trail, tree lights, Friday Night Music in the Air	Need more bike racks - love we have them, sprinkle a few more in key spots		Kellogg Park - needs improvements to each asset. Sidewalks need major improvement. Street Crossings and Parking signage (tied) nee improvement	d		5							5								
Kellogg Park, of course	The fountain in Kellogg Park	Bicycle lanes are an absolute priority	Bicylce lanes, bicycle lanes, bicycle lanes	5	4 5	3	4	5	3	4	5	3 5	4	3	3	4	2	5	2	r ii d n	Bicycle lanes bring commerce and connectedness to community regardless of size. Plymouth's amazing downtown area could I increased levels of access for residents who live in the city but difficult time justifying the ordeal of finding parking and somet making long treks to get to where they want to be. I believe bi lanes are an absolute win for the DDA.
Having a good mix of restaurants (non-chain) and specialty retail, a vibrant historic central suare and ample parking.		Perhaps a small public restroom near the end of forest, an additional parking structure or lot.	l Parking										4							3	sites are an absolute will for the DDA.
I think the park is perfect as is. Other than making the sidewalks correct (ADA compliant), I don't think much else needs to be done. The park is simple and I think that is what makes it usable and friendly.		No amenities need to be added											3								
Restaurants and retailers, Kellogg Park greenspace, wide sidewalks, mature trees, bike racks, planing boxes, mid block crosswalks	Not Valuable - compass in middle of intersection. Needs improvement - parking deck itself and entrance and exits to the deck, Kellogg park fountain. Removed - through street traffic on Penniman in front of the Gathering in the summer (like Detroit did at lower Woodward last year - could we activate this into a food truck gathering spot and outdoor seating area that's an extension of the park?). I wonder if some of our street parking spaces could be removed to create a bike lane, or a sidewalk bump out for more outdoor restaurant seating.		Ik Street beautification and greenspace preservation/growth. Continue variety and support for downtown restaurants and retail. Continued variety and support for downtown public programming.		2 2	2	2	4	4	4	5	5 5	3	4	4	5	4	3	1	2	
						5															

Plymouth DDA Master Plan Questionnaire

Question 1 Summary

Q1 - Which Existing Assets are Most Valuable? Open-Ended Response Categories/Frequency

Response Categories	Times Noted
Kellogg Park	19
Parking deck	10
Parking system/availability of parking	6
Trees	6
Walkability	5
Fountain	5
Social/gathering space	5
Sidewalks	4
Business mix/shopping convience	4
Underground utilities	3
Special events	3
Crosswalks	3
Lighting	2
Roads	2
Aesthetic appeal and charm	2
Welcoming/friendly	2
Penn Theater	2
Band shell	2
Main Street	2
Tree lights	2
Flowers	1
Saxtons	1
DMS equipment	1
Parks	1
Wayfinding signage	1
Cleanliness/maintenance	1
Streetscape	1
Benches	1
Trash and recycling bins	1
Clock	1
Tree grates	1
Traffic flox	1
DDA staff	1
Free parking	1
Sidewalk cafes	1
Planter boxes	1

Plymouth DDA Master Plan Questionnaire

Question 4 Summary

Q4 - What Improvements or Future Amenities do you View as the Highest Priority? Open-Ended Response Categories/Frequency

Response Categories	Times Noted
Sidewalk repairs	8
Kellogg Park improvements	7
Parking system improvements/strategy	7
Bike lanes	6
Parking deck repairs/replacement	5
Pedestrian safety improvements/amenities	5
Wayfinding/signage/gateways	5
Tree replacement	4
Street improvements	3
Bike racks/parking	3
Beautification/landscaping/streetscaping	3
Tree lighting	2
Tree grate repairs	2
Underground infrastructure upgrades	2
Lighting	2
Explore paid parking	2
Security/maintenance	2
Shuttle service	2
Benches	1
Drinking fountains	1
Composting	1
Sidewalks/non-motorized pathways	1
Truck traffic enforcement	1
Permanent band stand	1
Recycle bins	1
Support for businesses	1
Programming/special events	1
Ride sharing	1

Plymouth DDA Master Plan Questionnaire

Question 5 Summary

Q5 - Please rate the level of importance of the following assets as they relate to the character and desirability of downtown using a scale of 5 = Highly Important, 4 = Moderately Important, 3 = Neutral, 2 = Moderately Unimportant, and 1 = Highly Unimportant

	Asset Type Sidewalks/ Environ-																		
Survey#	Trees	Off-Street Parking	Sidewalks/ Non- motorized Corridors	Streetlights	Seating & Gathering Areas	Environ- mentally Friendly Lighting	Crosswalks	On-Street Parking	Wayfinding Signage	Public Art	Tree Grates	Recylcing/ Composting	Bike Lanes	Drinking Fountains	Traffic Signal Poles	Ride Sharing Amenities	Electric Vehicle Plug in Stations	Bicycle sharing	Scooter sharing
1	3	4	3	5	4	3	3	4	2	4	5	4	2	5	4	2	3	2	1
3	5	4	5	5	5	3	5	4	5	5	3	3	5	5	4	3	3	3	3
5	4	5	5	5	5	5	5	5	4	5	4	5	4	3	5	3	5	2	2
6	4	4	5	4	4	4	3	4	4	3	3	3	3	4		1	4	1	1
7	5	5	5	5	4	4	5	5	5	4	4	4	3	4	3	5	3	3	3
8	5	5	5	4	4	5	4	5	3	4	3	4	3	3	3	1	1	1	1
9	5	5	5	4	3	5	3	4	4	4	4	5	3	3	3	2	4	3	3
10	4	5	5	3	4	4	3	5	5	3	4	4	5	3	3	4	5	4	2
11	4	5	5	5	5	3	5	5	5	4	3	4	4	5	4	2	1	2	2
12	5	5	5	5	5	4	4	5	4	4	4	4	3	4	4	3	4	4	4
13	5	5	5	5	4	5	5	3	5	3	4	5	5	4	5	4	3	3	1
14	5	3	4	5	5	5	5	3	4	4	4	3	5	4	4	4	4	4	2
15	5	5	2	4	2	4	5	4	2	5	5	2	2	2	4	4	4	2	2
16	5	5	5	4	5	5	4	5	4	4	4	5	4	4	4	3	5	1	1
17	4	5	3	5	4	5	5	5	4	4	5	4	2	4	5	4	1	3	2
18	5	4	5	5	5	5	4	2	5	2	3	5	5	5	3	3	1	5	1
19	5	4	5	4	4	5	5	2	5	3	4	5	5	2	3	4	4	4	4
20	4	5	4	4	5	4	4	4	4	5	4	4	5	4	3	5	4	5	4
21	5	5	5	5	5	4	5	3	5	4	5	4	4	3	5	5	5	3	2
22	5	5	5	3	4	4	5	4	4	3	3	3	5	2	4	3	3	5	2
23	5	5	5	5	5	5	4	5	4	5	3	3	1	4	4	4	3	1	1
24	5	5	5	5	3	5	5	5	3	2	3	1	3	4	2	2	1	1	1
25	5	2	5	4	5	4	4	2	3	4	5	4	4	4	2	2	2	3	1
26	5	5	3	3	4	3	3	5	4	5	3	3	4	3	3	5	4	4	3
Low	3	2	2	3	2	3	3	2	2	2	3	1	1	2	2	1	1	1	1
High	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4
Average	4.67	4.58	4.54	4.42	4.29	4.29	4.29	4.08	4.04	3.88	3.83	3.79	3.71	3.67	3.65	3.25	3.21	2.88	2.04

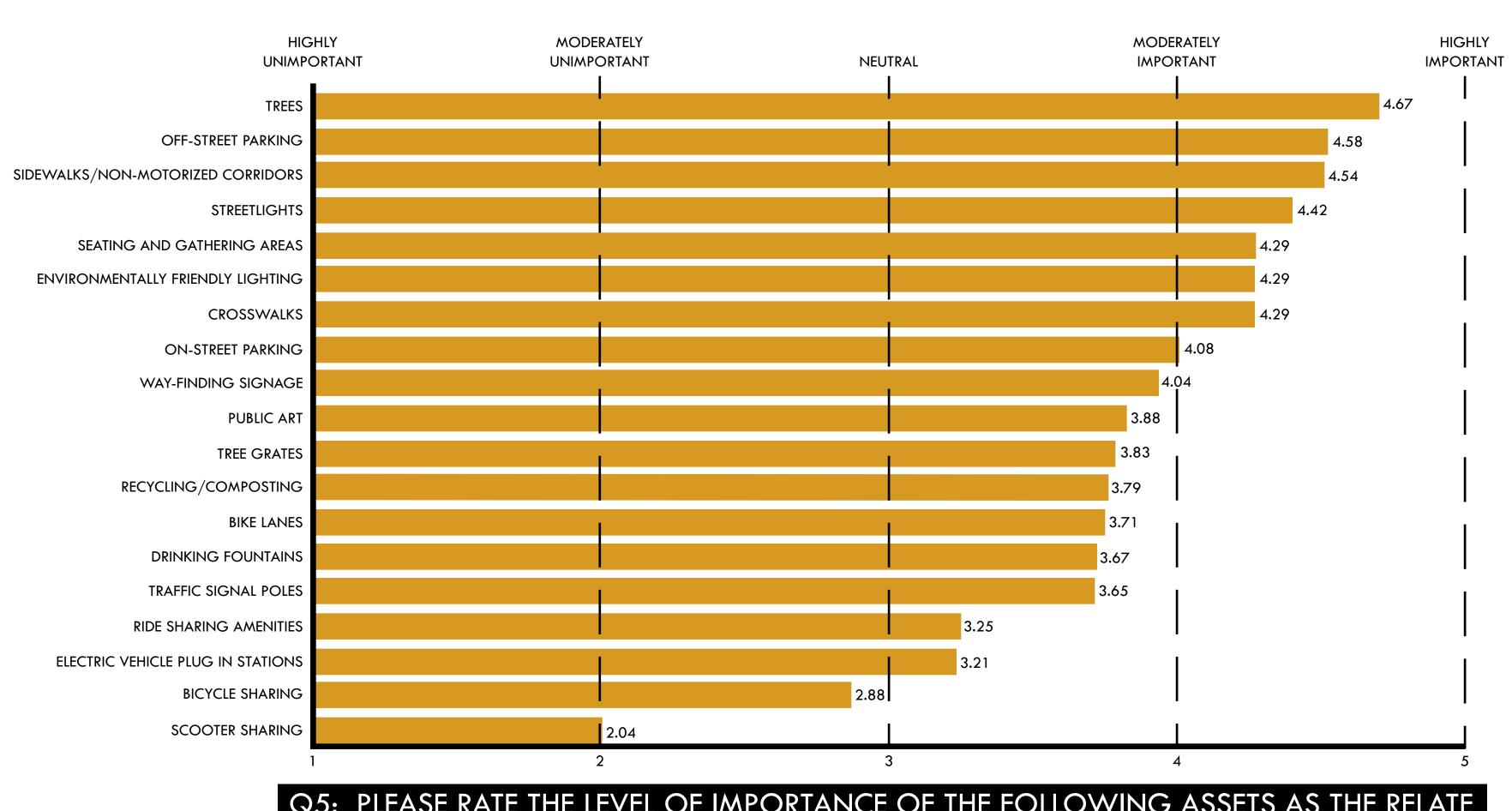
Appendix B



Q1: WHICH EXISTING ASSETS ARE MOST VALUABLE?

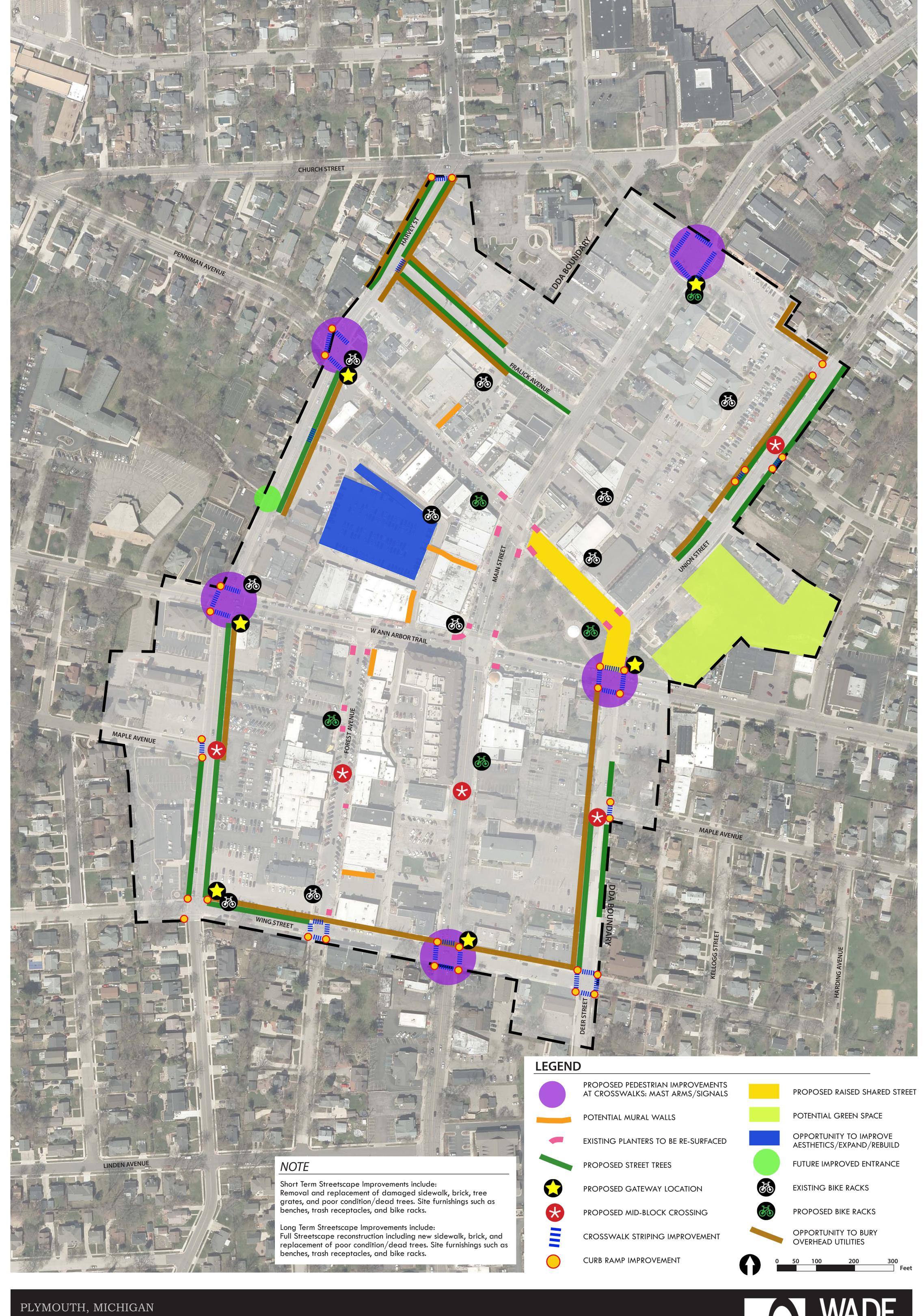


Q4: WHAT IMPROVEMENTS OR FUTURE AMENITIES DO YOU VIEW AS THE HIGHEST PRIORITY?



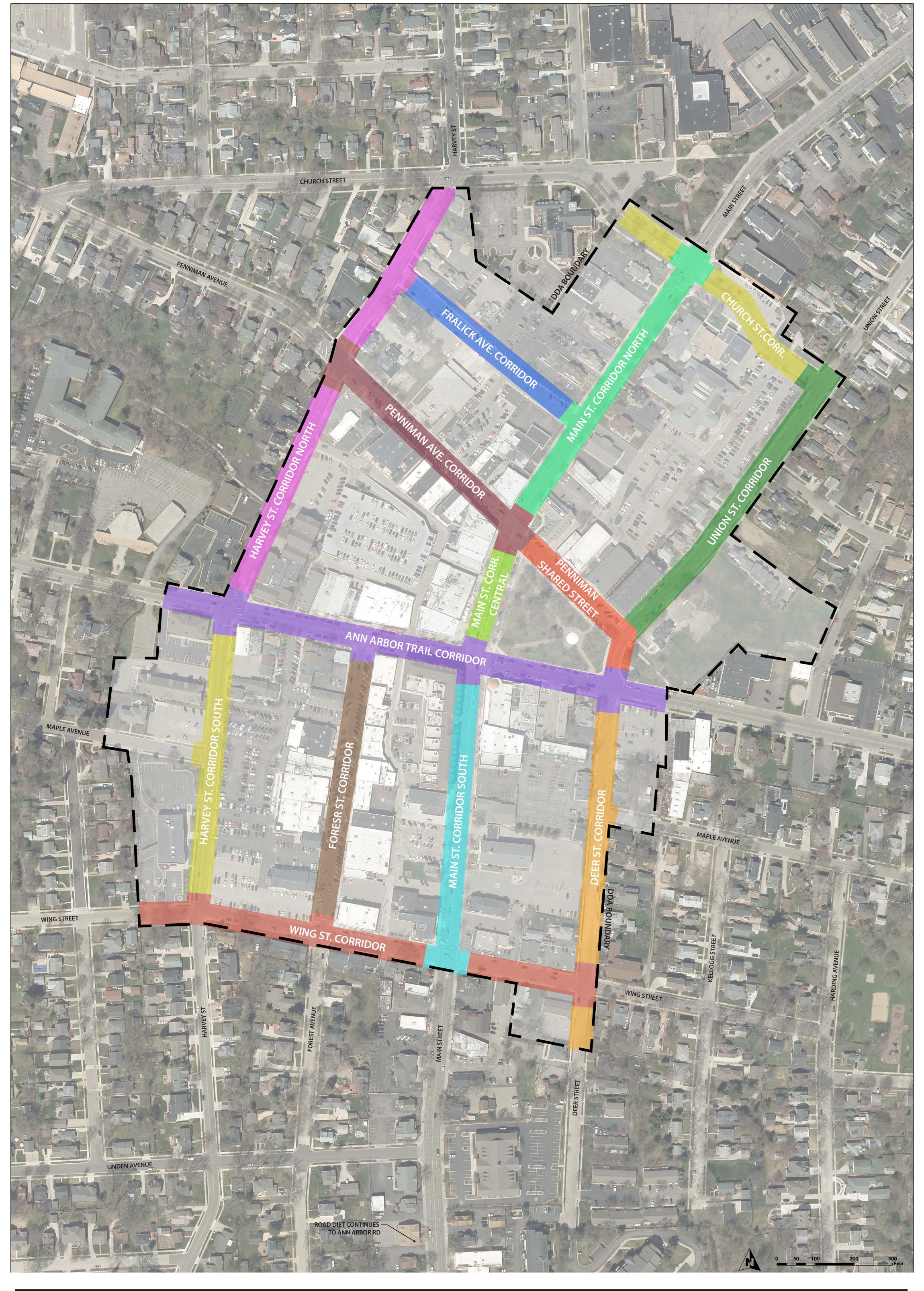
Q5: PLEASE RATE THE LEVEL OF IMPORTANCE OF THE FOLLOWING ASSETS AS THE RELATE TO THE CHARACTER AND DESIRABILITY OF DOWNTOWN















PLYMOUTH, MICHIGAN

DDA STRATEGIC MASTERPLANS MAIN ST PROPOSED ROAD DIET - OCTOBER 2019





































































Appendix C



Plymouth DDA Corridor Improvements Total (All Corridors) Schematic Design Cost Estimate

Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptua Site Plan dated September 2020.

Short Term Annual Maintenance Tasks		
Corridor Name		Cost
Ann Arbor Trail	\$	108,970.12
Church Street	\$	71,243.20
Deer Street	\$	73,249.40
Forest Street	\$	76,192.76
Fralick Avenue	\$	59,379.60
Harvey Street South	\$	67,179.84
Harvey Street North	\$	88,799.20
Main Street North	\$	80,756.48
Main Street Central	\$	47,802.72
Main Street South	\$	76,051.64
Penniman Avenue	\$	73,130.40
Penniman Avenue Shared Street	\$	53,870.04
Union Street	\$	78,498.84
Wing Street	\$	94,028.76
Short Term Estimated Total (All Corridors)	:	\$1,049,153.00

Capital Improvement Projects		
Corridor Name		Cost
Ann Arbor Trail	\$	2,036,303.97
Church Street	\$	265,239.33
Deer Street	\$	558,705.23
Fralick Avenue	\$	899,037.22
Forest Street	\$	704,598.77
Harvey Street South	\$	1,198,517.60
Harvey Street North	\$	2,018,203.44
Main Street North	\$	1,211,003.27
Main Street Central	\$	266,577.58
Main Street South	\$	1,150,485.86
Penniman Avenue	\$	1,333,977.56
Penniman Avenue Shared Street	\$	2,314,750.45
Union Street	\$	638,166.28
Wing Street	\$	655,898.68
Capital Improvement Total (All Corridors)	:	\$15,251,465.23
Estimated Grand Total (All Corridors):		\$16,300,618.23



Plymouth DDA Corridor Improvements Total (All Corridors) Schematic Design Cost Estimate Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Short Term Annual Maintenance Tasks						
tem	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Note
Maintenance and Traffic Control	10875	LFT	\$15.00	\$163,125.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	14	EA	\$400.00	\$5,600.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	14	AL	\$1,500.00	\$21,000.00	\$1500/Corridor/Year	
					3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	6090	SFT	\$3.00	\$18,270.00	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	435	LFT	\$15.00	\$6,525.00	Maintenance and Repairs	
Miscellaneous Utility Work	10875	LFT	\$5.00	\$54,375.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
Free Grate (Replacement)	28	EA	\$1,500.00	\$42,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	14	EA	\$650.00	\$9,100.00	1 Tree/Corridor/Year	
Free Trimming	253	EA	\$200.00	\$50,600.00	\$200/Tree/Year	
Planter box Maintenance	14	AL	\$1,000.00	\$14,000.00	\$1000/Corridor/Year	
andscape Restoration	10875	LFT	\$2.00	\$21,750.00	\$2/LFT/COR - Maintenance and Repairs	
rrigation Repair	10875	LFT	\$2.00	\$21,750.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	14	EA	\$1,500.00	\$21,000.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	14	EA	\$2,500.00	\$35,000.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	14	EA	\$1,500.00	\$21,000.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	435	LF	\$30.00	\$13,050.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	6090	SFT	\$10.00	\$60,900.00	Maintenance and Repairs	
					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	1305	SFT	\$20.00	\$26,100.00	Maintenance and Repairs	
Crosswalk Re-Striping	14	AL	\$1,500.00	\$21,000.00	\$1500/Corridor/Year	
Pavement Marking Restriping	10875	LFT	\$2.00	\$21,750.00	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	14	AL	\$500.00	\$7,000.00	\$500/Corridor/Year	
Sign Maintenance	14	AL	\$2,000.00	\$28,000.00	\$2000/Corridor/Year	
Reseal and Restripe Parking lots	14	AL	\$2,000.00	\$28,000.00	\$2000/Corridor/Year	
Painting Light poles	14	AL	\$2,750.00	\$38,500.00	\$2750/Corridor/Year	
			Construction Sub Total	\$749,395.00		
	·		Contingencies (20%)	\$149,879.00		
	Design a	nd Construct	ion Engineering (Estimated 20%)	\$149,879.00		
		Short Term	Estimated Total (All Corridors):	\$1,049,153.00		

tem Mobilization (10% max) Gedimentation and Erosion Control Measures Maintenance and Traffic Control Demolition Remove Street Trees Remove or Remove and Replace Site Furnishings Remove Hardscape (Sidewalk, Road, Paving Etc.)	Quantity 1 1 10875 10875	Unit LS LFT	Unit Price \$914,756.40	Total Cost \$914,756.40	General Note 10% of Construction Sub-Total	Corridor Specific Not
edimentation and Erosion Control Measures laintenance and Traffic Control Demolition emove Street Trees emove or Remove and Replace Site Furnishings	10875			\$914,756.40	10% of Construction Sub-Total	
laintenance and Traffic Control emolition emove Street Trees emove or Remove and Replace Site Furnishings			^40 CC	¢100 750 00	\$10/LFT/Corridor	
emolition emove Street Trees emove or Remove and Replace Site Furnishings	10875		\$10.00		\$20/LFT/Corridor \$20/LFT/Corridor	
emove Street Trees emove or Remove and Replace Site Furnishings	_	LFT	\$20.00	\$217,500.00	\$20/LF1/Corridor	
emove or Remove and Replace Site Furnishings						
	83.25	EA	\$400.00	\$33,300.00	Roughly 1/4 of Short Term	
emove Hardscape (Sidewalk, Road, Paving Etc.)	1	LS	\$34,000.00	\$34,000.00		
	82160	SFT	\$5.00	\$410,800.00		
emove Vehicular Concrete (Penniman Shared Street)	5163	SFT	\$3.00	\$15,489.00		Penniman Shared Street
emove Asphalt (Penniman Shared Street)	15245	SFT	\$2.00	\$30,490.00		Penniman Shared Street
emove Pedestrian Hardscape (Penniman Shared Street)	6590	SFT	\$3.00	\$19,770.00		Penniman Shared Street
emove Curb and Gutter (Penniman Shared Street)	1010	LFT	\$15.00	\$15,150.00		Penniman Shared Street
emove and Replace Light Pole (Penniman Shared Street)	6	EA	\$2,500.00	\$15,000.00		Penniman Shared Street
emove and Relocate Light Pole	2	EA	\$2,000.00	\$4,000.00		
emove Planter	2	EA	\$4,000.00	\$8,000.00		
iscellaneous Utility Relocation	10875	LFT	\$25.00	\$271,875.00	\$25/LFT/Corridor	
ew Construction						
te Grading	1	LS	\$154,500.00	\$154,500.00	1	
treet Trees	222	EA	\$650.00		Based upon 30' spacing between trees	
ew Planter	22	EA	\$12,000.00		All new designed seat wall planter \$50/LFT cap and \$30/sf, plus added \$2,500	
lanter Resurface	21	EA	\$9,000.00	\$189 በበበ በበ	for materiality contingency	
	4440	CYD			20 CYD/Tree	
tructural Soil (Tree Planting)	4440	LFT	\$125.00 \$80.00		by business owner	
atio Rail					by business owner	
nderground Electrical Line (Conduit, Wire, Fittings, Connections)	5845	LFT	\$10.00	\$58,450.00		
rigation	10875	LFT	\$2.00	\$21,750.00		
edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)	0	EA	\$2,500.00	\$0.00		
dewalk Pavers (Including Base)	32864	SFT	\$20.00	\$657,280.00		
oncrete Sidewalk 4" (Streetscape Long-term build out)	49296	SFT	\$10.00	\$492,960.00		
oncrete Sidewalk 4" (Initial Maintenance)	9890	SFT	\$10.00	\$98,900.00		
einforced Concrete (Crosswalk Band) (Penniman Shared Street)	80	LFT	\$35.00	\$2,800.00		Penniman Shared Street
urb Ramp with Truncated Domes	34	EA	\$1,500.00	\$51,000.00		
ermeable Pavers (Vehicular Parking)	0	SFT	\$15.00	\$0.00		
rick (Vehicular Drive Lanes and Bike Lanes) (Penniman Shared Street)	18200	SFT	\$20.00	\$364,000.00		Penniman Shared Street
oncrete Base for Pavers (Penniman Shared Street)	6067	SYD	\$75.00	\$455,000.00		Penniman Shared Street
ollard (Vehicular, Retractabe)(Penniman Shared Street)	34	EA	\$6,000.00	\$204,000.00		
ollard (Parkingr, Retractabe)(Penniman Shared Street)	46	EA	\$3,000.00	\$138,000.00		
oadway Reconstruction with 8" Aggregate Base and 7" HMA	1	LS	\$1,500,000.00	\$1,500,000.00		
einforced Concrete (Band)	250	LFT	\$30.00	\$7,500.00		See Specific Corridor Tab for
ntersection Mast Arms	5	EA	\$300,000.00	\$1,500,000.00		Locations
lidblock Crossing	5	EA	\$6,500.00		New Signage and Pavement Markings	
tility Box Beautification (Art/Wayfinding)	12	EA	\$3,000.00	\$36,000.00		
ew Hardscape Construction	1	LS	\$67,500.00		Specialty hardscape- curb bumpouts, etc.	
te Furnishings	1	LS	\$42,000.00		Half cost of short term	
rinking Fountain		EA				
rinking Fountain Jry Overhead Utility Lines	6 4485	LFT	\$5,000.00 \$200.00	\$30,000.00 \$897,000.00		
ary overnead offlity filles	4405	LFI	Ş200.00		New signage for Back in Parking and Shared	
raffic Signage	22	EA	\$500.00	\$11,000.00		
/ayfinding Signage	33	EA	\$1,500.00	\$49,500.00		See Specific Corridor Tab fo
ainted Murals	2650	SFT	\$35.00	\$92,750.00		Locations
Sateway Sculpture	6	EA	\$17,500.00	\$105,000.00		See Specific Corridor Tab for Locations
Sateway Site Improvements	6	EA	\$15,000.00	\$90,000.00		
pgrade Street Light Fixture to LED	242	EA	\$2,000.00	\$483,333.33		
			Construction Sub Total	\$10,893,903.73		
			Contingencies (20%)	\$2,178,780.75		
	Design a	nd Construction	on Engineering (Estimated 20%)	\$2,178,780.75		
		Long Term	Estimated Total (All Corridors):	\$15,251,465.23		



Plymouth DDA Corridor Improvements Ann Arbor Trail Schematic Design Cost Estimate

Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Approximate Corridor Length = 1335

Short Term Annual Maintenance Tasks						
Item	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Note
Maintenance and Traffic Control	1335	LFT	\$15.00	\$20,025.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year	
					3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	747.6	SFT	\$3.00	\$2,242.80	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	53.4	LFT	\$15.00	\$801.00	Maintenance and Repairs	
Miscellaneous Utility Work	1335	LFT	\$5.00	\$6,675.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
Tree Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00	\$650.00	1 Tree/Corridor/Year	
Tree Trimming	35	EA	\$200.00	\$7,000.00	\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00	\$1,000.00	\$1000/Corridor/Year	
andscape Restoration	1335	LFT	\$2.00	\$2,670.00	\$2/LFT/COR - Maintenance and Repairs	
rrigation Repair	1,335	LFT	\$2.00	\$2,670.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	53	LFT	\$30.00	\$1,602.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	748	SFT	\$10.00	\$7,476.00	Maintenance and Repairs	
					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	160	SFT	\$20.00		Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00		1 Crosswalk/Corridor/Year	
Pavement Markings	1335	LFT	\$2.00	\$2,670.00	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00	. ,	\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00	·	\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00		\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00	. ,	\$2750/Corridor/Year	
			Construction Sub Total	\$77,835.80		
			Contingencies (20%)	\$15,567.16		
	nd Constructi	on Engineering (Estimated 20%)	\$15,567.16			
		_	Short Term Estimated Total:	\$108,970.12		
			Short Term Estimated Total.	φ100,370.12		

Capital Improvement Projects						
Item	Quantity	Unit	Unit Price	Total Cost		Corridor Specific No
Mobilization (10% max)	1	LS	\$120,924.50	\$120,924.50	10% of Construction Sub-Total	
Sedimentation and Erosion Control Measures	1335	LFT	\$10.00		\$10/LFT/Corridor	
Maintenance and Traffic Control	1335	LFT	\$20.00	\$26,700.00	\$20/LFT/Corridor	
Demolition					1	
lemove Street Trees	9	EA	\$400.00	\$3,500.00	Roughly 1/4 of Short Term	
Remove or Remove and Replace Site Furnishings	1	LS	\$3,000.00	\$3,000.00		
Remove Hardscape (Sidewalk, Road, Paving Etc.)	21360	SFT	\$5.00	\$106,800.00		
Remove Vehicular Concrete		SFT	\$3.00	\$0.00		
Remove Asphalt		SFT	\$2.00	\$0.00		
Remove Pedestrian Hardscape		SFT	\$3.00	\$0.00		
Remove Curb and Gutter		LFT	\$15.00	\$0.00		
Remove and Replace Light Pole		EA	\$2,500.00	\$0.00		
Remove and Relocate Light Pole		EA	\$2,000.00	\$0.00		
Remove Planter	0	EA	\$4,000.00	\$0.00		
Miscellaneous Utility Relocation	1335	LFT	\$25.00		\$25/LFT/Corridor	
modeliance as stilley nelocation	1333		\$25.00	ψ55,575.00	, , , , , , , , , , , , , , , , , , , ,	
New Construction					1	
ite Grading	1	LS	\$5,000.00	\$5,000.00		
Street Trees	12	EA	\$650.00	\$7,800.00	Based upon 30' spacing between trees	
New Planter		EA	\$12,000.00	\$0.00	All new designed seat wall planter	
					\$50/LFT cap and \$30/sf, plus added \$2,500	
Planter Resurface	7	EA	\$9,000.00	\$63,000.00	for materiality contingency	
itructural Soil (Tree Planting)	240	CYD	\$125.00	\$30,000.00	20 CYD/Tree	
Patio Rail		LFT	\$80.00	\$0.00	by business owner	
Underground Electrical Line (Conduit, Wire, Fittings, Connections)	1	LFT	\$10.00	\$10.00		
rrigation	1,335	LFT	\$2.00	\$2,670.00		
Pedestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)		EA	\$2,500.00	\$0.00		
iidewalk Pavers (Including Base)	8,544	SFT	\$20.00	\$170,880.00		
Concrete Sidewalk 4" (Including Base)	12,816	SFT	\$10.00	\$128,160.00		
Concrete Sidewalk 4"	300	SFT	\$10.00	\$3,000.00		
Reinforced Concrete (Crosswalk Band)		LFT	\$35.00	\$0.00		
Curb Ramp with Truncated Domes	6	EA	\$1,500.00	\$9,000.00		
Permeable Pavers (Vehicular Parking)		SFT	\$15.00	\$0.00		
Brick (Vehicular Drive Lanes and Bike Lanes)		SFT	\$20.00	\$0.00		
Concrete Base for Pavers (Penniman Shared Street)		SYD	\$75.00	\$0.00		
Bollard (Vehicular, Retractabe)(Penniman Shared Street)		EA	\$6,000.00	\$0.00		
Bollard (Parkingr, Retractabe)(Penniman Shared Street)		EA	\$3,000.00	\$0.00		
Roadway Reconstruction with 8" Aggregate Base and 7" HMA		LS	\$0.00	\$0.00		
teinforced Concrete (Band)		LFT	\$30.00	\$0.00		
						At Harvey and Union/Dee
ntersection Mast Arms	2	EA	\$300,000.00	\$600,000.00		Intersections
Midblock Crossing		EA	\$6,500.00	\$0.00	New Signage and Pavement Markings	
Jtility Box Beautification (Art/Wayfinding)		EA	\$3,000.00	\$0.00		
New Hardscape Construction		LS		\$0.00	Specialty hardscape- curb bumpouts, etc.	
Site Furnishings	1	LS	\$3,000.00	\$3,000.00	Half cost of short term	
Orinking Fountain		EA	\$5,000.00	\$0.00		
Bury Overhead Utility Lines		LFT	\$200.00	\$0.00		
					New signage for Back in Parking and Shared	
Traffic Signage		EA	\$500.00		Street	
Nayfinding Signage		EA	\$1,500.00	\$0.00		
ainted Murals		SFT	\$35.00	\$0.00		In alley on Fleet Street At Harvey and Union/Deel
Sateway Sculpture	2	EA	\$17,500.00	\$35,000.00		Intersections
Gateway Sturpture Gateway Site Improvements	2	EA	\$17,300.00	\$30,000.00		
Jpgrade Street Light Fixture to LED	30	EA	\$2,000.00	\$59,333.33		
PARIAGE STREET LIGHT FIXTURE TO LED	50	LA	\$2,000.00	35.555,555		
			Construction Sub Total	\$1,454,502.83		
			Contingencies (20%)	\$290,900.57		
	Design ar	nd Construc	ction Engineering (Estimated 20%)	\$290,900.57	1	

			Long Term Estimated Total:	\$2,036,303.97	1	

Estimated Corridor Grand Total: \$2,145,274.09



Plymouth DDA Corridor Improvements Church St. Corridor Schematic Design Cost Estimate Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Short Term Annual Maintenance Tasks						
Item	Quantity	Unit	Unit Price	Total Cost		Corridor Specific Note
Maintenance and Traffic Control	600	LFT	\$15.00	\$9,000.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year	
					3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	336	SFT	\$3.00	\$1,008.00	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	24	LFT	\$15.00	\$360.00	Maintenance and Repairs	
Miscellaneous Utility Work	600	LFT	\$5.00	\$3,000.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
Tree Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00	\$650.00	1 Tree/Corridor/Year	
Tree Trimming	38	EA	\$200.00	\$7,600.00	\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00	\$1,000.00	\$1000/Corridor/Year	
Landscape Restoration	600	LFT	\$2.00	\$1,200.00	\$2/LFT/COR - Maintenance and Repairs	
Irrigation Repair	600	LFT	\$2.00	\$1,200.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	24	LFT	\$30.00	\$720.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	336	SFT	\$10.00	\$3,360.00	Maintenance and Repairs	
, , ,					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	72	SFT	\$20.00	\$1,440.00	Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00	\$1,500.00	1 Crosswalk/Corridor/Year	
Pavement Markings	600	LFT	\$2.00	\$1,200.00	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00		\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00		\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00		\$2750/Corridor/Year	
			Construction Sub Total	\$50,888.00		
	•		Contingencies (20%)	\$10,177.60		
	Design a	and Construc	tion Engineering (Estimated 20%)	\$10,177.60		
			Short Term Estimated Total:	\$71,243.20		

Capital Improvement Projects						
tem	Quantity	Unit	Unit Price	Total Cost	General Note Corridor Speci	ic Not
Nobilization (10% max)	1	LS	\$14,390.00	\$14,390.00	10% of Construction Sub-Total	
Sedimentation and Erosion Control Measures	600	LFT	\$10.00	\$6,000.00	\$10/LFT/Corridor	
Maintenance and Traffic Control	600	LFT	\$20.00	\$12,000.00	\$20/LFT/Corridor	
Demolition						
Remove Street Trees	10	EA	\$400.00	\$3,800,00	Roughly 1/4 of Short Term	
Remove or Remove and Replace Site Furnishings	1	LS	\$3,000.00	\$3,000.00	11000g) 27 1 01 011010 1 01111	
Remove Hardscape (Sidewalk, Road, Paving Etc.)	-	SFT	\$5.00	\$0.00		
Remove Vehicular Concrete		SFT	\$3.00	\$0.00		
Remove Asphalt		SFT	\$2.00	\$0.00		
Remove Pedestrian Hardscape		SFT	\$3.00	\$0.00		
Remove Curb and Gutter		LFT	\$15.00	\$0.00		
Remove and Replace Light Pole		EA	\$2,500.00	\$0.00		
Remove and Relocate Light Pole		EA	\$2,000.00	\$0.00		
Remove Planter	0	EA	\$4,000.00	\$0.00		
Miscellaneous Utility Relocation	600	LFT	\$25.00		\$25/LFT/Corridor	
New Construction		ıc	62.000.00	£2.000.00		
ite Grading	1	LS	\$2,000.00	\$2,000.00	Deced upon 201 angeing hotuses: tra	
itreet Trees	16	EA	\$650.00		Based upon 30' spacing between trees	
New Planter		EA	\$12,000.00	\$0.00	All new designed seat wall planter	
			40,000,00	40.00	\$50/LFT cap and \$30/sf, plus added \$2,500	
Planter Resurface	220	EA	\$9,000.00		for materiality contingency	
itructural Soil (Tree Planting)	320	CYD	\$125.00		20 CYD/Tree	
Patio Rail		LFT	\$80.00		by business owner	
Underground Electrical Line (Conduit, Wire, Fittings, Connections)	0	LFT	\$10.00	\$0.00		
rrigation	600	LFT	\$2.00	\$1,200.00		
Pedestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)		EA	\$2,500.00	\$0.00		
Sidewalk Pavers (Including Base)		SFT	\$20.00	\$0.00		
Concrete Sidewalk 4" (Including Base)		SFT	\$10.00	\$0.00		
Concrete Sidewalk 4"	100	SFT	\$10.00	\$1,000.00		
Reinforced Concrete (Crosswalk Band)		LFT	\$35.00	\$0.00		
Curb Ramp with Truncated Domes	1	EA	\$1,500.00	\$1,500.00		
Permeable Pavers (Vehicular Parking)		SFT	\$15.00	\$0.00		
Brick (Vehicular Drive Lanes and Bike Lanes)		SFT	\$20.00	\$0.00		
Concrete Base for Pavers (Penniman Shared Street)		SYD	\$75.00	\$0.00		
Bollard (Vehicular, Retractabe)(Penniman Shared Street)		EA	\$6,000.00	\$0.00		
Bollard (Parkingr, Retractabe)(Penniman Shared Street)		EA	\$3,000.00	\$0.00		
Roadway Reconstruction with 8" Aggregate Base and 7" HMA		LS	\$0.00	\$0.00		
Reinforced Concrete (Band)		LFT	\$30.00	\$0.00		
ntersection Mast Arms		EA	\$300,000.00	\$0.00		
Midblock Crossing		EA	\$6,500.00		New Signage and Pavement Markings	
Jtility Box Beautification (Art/Wayfinding)		EA	\$3,000.00	\$0.00		
New Hardscape Construction		LS	\$0.00	•	Specialty hardscape- curb bumpouts, etc.	
ite Furnishings	1	LS	\$3,000.00	, -,	Half cost of short term	
Orinking Fountain		EA	\$5,000.00	\$0.00		
Bury Overhead Utility Lines	225	LFT	\$200.00	\$45,000.00		
raffic Signage		ГА	ć500.00	ć0.00	New signage for Back in Parking and Shared	
	2	EA	\$500.00 \$1.500.00		Street	
Vayfinding Signage	3	EA	\$1,500.00	\$4,500.00		
Painted Murals		SFT	\$35.00	\$0.00		
Gateway Sculpture		EA	\$17,500.00	\$0.00		
Sateway Site Improvements	13	EA EA	\$15,000.00 \$2,000.00	\$0.00 \$26,666.67		
Ipgrade Street Light Fixture to LED	13	EA	\$2,000.00	<i>⊋</i> ∠0,000.b/		
			Construction Sub Total	\$189,456.67		
			Contingencies (20%)	\$37,891.33		
	Design a	nd Constructi	on Engineering (Estimated 20%)	\$37,891.33		
			Long Term Estimated Total:	\$265,239.33		
			stimated Corridor Grand Total:	\$336,482.53		



Plymouth DDA Corridor Improvements Deer St. Schematic Design Cost Estimate Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Short Term Annual Maintenance Tasks						
Item	Quantity	Unit	Unit Price	Total Cost		Corridor Specific Note
Maintenance and Traffic Control	825	LFT	\$15.00	\$12,375.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00		\$1500/Corridor/Year	
- 0-,	_		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,	3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	462	SFT	\$3.00	\$1,386.00	Maintenance and Repairs	
			,	. ,	2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	33	LFT	\$15.00	\$495.00	Maintenance and Repairs	
Miscellaneous Utility Work	825	LFT	\$5.00		\$5/LFT/corridor - Maintenance and Repairs	
·					, '	
New Construction						
Tree Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00		1 Tree/Corridor/Year	
Tree Trimming	3	EA	\$200.00	\$600.00	\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00		\$1000/Corridor/Year	
Landscape Restoration	825	LFT	\$2.00	\$1,650.00	\$2/LFT/COR - Maintenance and Repairs	
Irrigation Repair	825	LFT	\$2.00	\$1,650.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	33	LFT	\$30.00	\$990.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	462	SFT	\$10.00	\$4,620.00	Maintenance and Repairs	
					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	99	SFT	\$20.00		Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00	\$1,500.00	1 Crosswalk/Corridor/Year	
Pavement Markings	825	LFT	\$2.00	\$1,650.00	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00	\$500.00	\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00	\$2,750.00	\$2750/Corridor/Year	
			Construction Sub Tatal	ćE2 221 00		
			Construction Sub Total	\$52,321.00		
	Da-!	nd Car -+	Contingencies (20%)	\$10,464.20		
	Design a	ina const	ruction Engineering (Estimated 20%)	\$10,464.20		
			Short Term Estimated Total:	\$73,249.40		

Capital Improvement Projects					
tem	Quantity	Unit	Unit Price	Total Cost	General Note Corridor Specific
Mobilization (10% max)	1	LS	\$32,673.50	\$32,673.50	10% of Construction Sub-Total
Sedimentation and Erosion Control Measures	825	LFT	\$10.00	\$8,250.00	\$10/LFT/Corridor
Maintenance and Traffic Control	825	LFT	\$20.00	\$16,500.00	\$20/LFT/Corridor
Demolition					
Remove Street Trees	7	EA	\$400.00	\$2,700,00	Roughly 1/4 of Short Term
Remove or Remove and Replace Site Furnishings	1	LS	\$1,000.00	\$1,000.00	noughly 1/4 of Short Term
Remove Hardscape (Sidewalk, Road, Paving Etc.)	-	SFT	\$5.00	\$0.00	
Remove Vehicular Concrete		SFT	\$3.00	\$0.00	
Remove Asphalt		SFT	\$2.00	\$0.00	
Remove Pedestrian Hardscape		SFT	\$3.00	\$0.00	
Remove Curb and Gutter		LFT	\$15.00	\$0.00	
Remove and Replace Light Pole		EA	\$2,500.00	\$0.00	
Remove and Relocate Light Pole		EA	\$2,000.00	\$0.00	
Remove Planter	0	EA	\$4,000.00	\$0.00	
Miscellaneous Utility Relocation	825	LFT	\$25.00		\$25/LFT/Corridor
Name Camakan akina					
New Construction ite Grading	1	LS	\$8,000.00	\$8,000.00	
itreet Trees	30	EA	\$8,000.00 \$650.00		Based upon 30' spacing between trees
New Planter	30	EA	\$12,000.00		All new designed seat wall planter
vew i lancer		LA	\$12,000.00	Ş0.00	\$50/LFT cap and \$30/sf, plus added \$2,500
Planter Resurface		EA	\$9,000.00	\$ በ በበ	for materiality contingency
Structural Soil (Tree Planting)	600	CYD	\$125.00		20 CYD/Tree
Patio Rail	000	LFT	\$80.00		by business owner
Jnderground Electrical Line (Conduit, Wire, Fittings, Connections)	1	LFT	\$10.00	\$10.00	· ·
	825	LFT		\$1,650.00	
rrigation	825	EA	\$2.00 \$2,500.00	\$1,650.00	
Pedestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)		SFT			
Sidewalk Pavers (Including Base)			\$20.00	\$0.00	
Concrete Sidewalk 4" (Including Base)	200	SFT	\$10.00	\$0.00	
Concrete Sidewalk 4"	300	SFT	\$10.00	\$3,000.00	
Reinforced Concrete (Crosswalk Band)		LFT	\$35.00	\$0.00	
Curb Ramp with Truncated Domes	2	EA	\$1,500.00	\$3,000.00	
Permeable Pavers (Vehicular Parking)		SFT	\$15.00	\$0.00	
Brick (Vehicular Drive Lanes and Bike Lanes)		SFT	\$20.00	\$0.00	
Concrete Base for Pavers (Penniman Shared Street)		SYD	\$75.00	\$0.00	
Bollard (Vehicular, Retractabe)(Penniman Shared Street)		EA	\$6,000.00	\$0.00	
Bollard (Parkingr, Retractabe)(Penniman Shared Street)		EA	\$3,000.00	\$0.00	
Roadway Reconstruction with 8" Aggregate Base and 7" HMA		LS	\$0.00	\$0.00	
Reinforced Concrete (Band)		LFT	\$30.00	\$0.00	
ntersection Mast Arms		EA	\$300,000.00	\$0.00	
Aidblock Crossing	1	EA	\$6,500.00		New Signage and Pavement Markings
Jtility Box Beautification (Art/Wayfinding)	2	EA	\$3,000.00	\$6,000.00	Consider bonders on south bonnes
New Hardscape Construction		LS	40.000		Specialty hardscape- curb bumpouts, etc.
ite Furnishings	1	LS	\$3,000.00	1 - 7	Half cost of short term
Orinking Fountain		EA	\$5,000.00	\$0.00	
Bury Overhead Utility Lines	760	LFT	\$200.00	\$152,000.00	New signage for Back in Parking and Shared
raffic Signage		EA	\$500.00	\$0.00	Street
Vayfinding Signage	2	EA	\$1,500.00	\$3,000.00	
Painted Murals	-	SFT	\$35.00	\$0.00	
Gateway Sculpture		EA	\$17,500.00	\$0.00	
Gateway Scripture Gateway Site Improvements		EA	\$15,000.00	\$0.00	
Ingrade Street Light Fixture to LED	18	EA	\$2,000.00	\$36,666.67	
			Construction Sub Total	\$399,075.17	
	Design a	nd Construction	Contingencies (20%) on Engineering (Estimated 20%)	\$79,815.03 \$79,815.03	
	200.511 0				
			Long Term Estimated Total:	\$558,705.23	
		-	stimated Corridor Grand Total:	\$631,954.63	



Plymouth DDA Corridor Improvements
Forest St. Corridor Schematic Design Cost Estimate

Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Approximate	Corridor	Length =	705

Short Term Annual Maintenance Tasks						
tem	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Note
Maintenance and Traffic Control	705	LFT	\$15.00	\$10,575.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	1	EA	\$400.00	·	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year	
					3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	394.8	SFT	\$3.00	\$1,184.40	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	28.2	LFT	\$15.00	\$423.00	Maintenance and Repairs	
Miscellaneous Utility Work	705	LFT	\$5.00	\$3,525.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
ree Grate (Replacement)	2	EA	\$1,500.00		2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00	\$650.00	1 Tree/Corridor/Year	
Free Trimming	36	EA	\$200.00	\$7,200.00	\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00	\$1,000.00	\$1000/Corridor/Year	
andscape Restoration	705	LFT	\$2.00	\$1,410.00	\$2/LFT/COR - Maintenance and Repairs	
rrigation Repair	705	LFT	\$2.00	\$1,410.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	28	LFT	\$30.00	\$846.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	395	SFT	\$10.00	\$3,948.00	Maintenance and Repairs	
					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	85	SFT	\$20.00	\$1,692.00	Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00	\$1,500.00	1 Crosswalk/Corridor/Year	
Pavement Markings	705	LFT	\$2.00	\$1,410.00	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00		\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00		\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00		\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00		\$2750/Corridor/Year	
			Construction Sub Total	\$54,423.40		
			Contingencies (20%)	\$10,884.68		
	Design a	nd Constru	ction Engineering (Estimated 20%)	\$10,884.68		
			Short Term Estimated Total:	\$76,192.76		

Capital Improvement Projects						
Item	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Note
Mobilization (10% max)	1	LS	\$38,836.50	\$38,836.50	10% of Construction Sub-Total	
Sedimentation and Erosion Control Measures	705	LFT	\$10.00		\$10/LFT/Corridor	
Maintenance and Traffic Control	705	LFT	\$20.00	\$14,100.00	\$20/LFT/Corridor	
Demolition						
Remove Street Trees	9	EA	\$400.00	\$3,600.00	Roughly 1/4 of Short Term	
Remove or Remove and Replace Site Furnishings	1	LS	\$2,500.00	\$2,500.00	noughly 1/4 of Short Term	
Remove Hardscape (Sidewalk, Road, Paving Etc.)	11280	SFT	\$5.00	\$56,400.00		
Remove Vehicular Concrete	11200	SFT	\$3.00	\$0.00		
Remove Asphalt		SFT	\$2.00	\$0.00		
Remove Pedestrian Hardscape		SFT	\$3.00	\$0.00		
Remove Curb and Gutter		LFT	\$15.00	\$0.00		
Remove and Replace Light Pole		EA	\$2,500.00	\$0.00		
Remove and Relocate Light Pole		EA	\$2,000.00	\$0.00		
Remove Planter	0	EA	\$4,000.00	\$0.00		
Miscellaneous Utility Relocation	705	LFT	\$25.00		\$25/LFT/Corridor	
Wiscendificads office (Nelocation)	703	2.1.1	Ų23.00	\$17,023.00	φ25/2. 1/ 00111 a 0.	
New Construction						
Site Grading	1	LS	\$2,000.00	\$2,000.00		
Street Trees	15	EA	\$650.00		Based upon 30' spacing between trees	
New Planter	2	EA	\$12,000.00	\$24,000.00	All new designed seat wall planter	
					\$50/LFT cap and \$30/sf, plus added \$2,500	
Planter Resurface	3	EA	\$9,000.00		for materiality contingency	
Structural Soil (Tree Planting)	300	CYD	\$125.00	\$37,500.00	20 CYD/Tree	
Patio Rail		LFT	\$80.00	\$0.00	by business owner	
Jnderground Electrical Line (Conduit, Wire, Fittings, Connections)	1	LFT	\$10.00	\$10.00		
rrigation	705	LFT	\$2.00	\$1,410.00		
Pedestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)		EA	\$2,500.00	\$0.00		
Sidewalk Pavers (Including Base)	4,512	SFT	\$20.00	\$90,240.00		
Concrete Sidewalk 4" (Including Base)	6,768	SFT	\$10.00	\$67,680.00		
Concrete Sidewalk 4"	300	SFT	\$10.00	\$3,000.00		
Reinforced Concrete (Crosswalk Band)		LFT	\$35.00	\$0.00		
Curb Ramp with Truncated Domes		EA	\$1,500.00	\$0.00		
Permeable Pavers (Vehicular Parking)		SFT	\$15.00	\$0.00		
Brick (Vehicular Drive Lanes and Bike Lanes)		SFT	\$20.00	\$0.00		
Concrete Base for Pavers (Penniman Shared Street)		SYD	\$75.00	\$0.00		
Bollard (Vehicular, Retractabe)(Penniman Shared Street)		EA	\$6,000.00	\$0.00		
Bollard (Parkingr, Retractabe)(Penniman Shared Street)		EA	\$3,000.00	\$0.00		
Roadway Reconstruction with 8" Aggregate Base and 7" HMA		LS	\$0.00	\$0.00		
Reinforced Concrete (Band)		LFT	\$30.00	\$0.00		
ntersection Mast Arms		EA	\$300,000.00	\$0.00		
Midblock Crossing	1	EA	\$6,500.00	\$6,500.00	New Signage and Pavement Markings	
Utility Box Beautification (Art/Wayfinding)		EA	\$3,000.00	\$0.00		
New Hardscape Construction	1	LS	\$10,000.00	\$10,000.00	Specialty hardscape- curb bumpouts, etc.	
Site Furnishings	1	LS	\$3,000.00	\$3,000.00	Half cost of short term	
Drinking Fountain	1	EA	\$5,000.00	\$5,000.00		
Bury Overhead Utility Lines		LFT	\$200.00	\$0.00		
					New signage for Back in Parking and Shared	
Traffic Signage		EA	\$500.00	\$0.00	Street	
Wayfinding Signage	3	EA	\$1,500.00	\$4,500.00		
						On S. Wall of Pure Barre; On W. Wa
Painted Murals	1,150	SFT	\$35.00	\$40,250.00		of Edible Arrangements
Gateway Sculpture		EA	\$17,500.00	\$0.00		
Gateway Site Improvements		EA	\$15,000.00	\$0.00		
Jpgrade Street Light Fixture to LED	16	EA	\$2,000.00	\$31,333.33		
			Construction Sub Total	\$503,284.83		
			Contingencies (20%)	\$100,656.97		
	Design a	nd Construc	tion Engineering (Estimated 20%)	\$100,656.97		
			Long Toym Estimated Tatel	\$704,598.77		
			Long Term Estimated Total:	\$104,586.77		
			Estimated Corridor Grand Total:	\$780,791.53		



Plymouth DDA Corridor Improvements Fralick Ave. Corridor Schematic Design Cost Estimate Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Short Term Annual Maintenance Tasks						
Item	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Note
Maintenance and Traffic Control	550	LFT	\$15.00	\$8,250.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year	
.				. ,	3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	308	SFT	\$3.00	\$924.00	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	22	LFT	\$15.00	\$330.00	Maintenance and Repairs	
Miscellaneous Utility Work	550	LFT	\$5.00	\$2,750.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
Tree Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00		1 Tree/Corridor/Year	
Tree Trimming	5	EA	\$200.00	· ·	\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00	\$1,000.00	\$1000/Corridor/Year	
Landscape Restoration	550	LFT	\$2.00	. ,	\$2/LFT/COR - Maintenance and Repairs	
Irrigation Repair	550	LFT	\$2.00	. ,	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1.500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00		1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	. ,	1 Litter Bin/Corridor/Year	
()			, ,		2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	22	LFT	\$30.00		Maintenance and Repairs	
			• • • • • • • • • • • • • • • • • • • •		3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	308	SFT	\$10.00		Maintenance and Repairs	
(),				, -,	1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	66	SFT	\$20.00	\$1.320.00	Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00		1 Crosswalk/Corridor/Year	
Pavement Markings	550	LFT	\$2.00		\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00	. ,	\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00		\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00		\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00	. ,	\$2750/Corridor/Year	
			Construction Sub Total	\$42,414.00		
			Contingencies (20%)	\$8,482.80		
	Design a	and Construc	tion Engineering (Estimated 20%)	\$8,482.80		
			Short Term Estimated Total:	\$59,379.60		

Capital Improvement Projects						
Item	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Not
Mobilization (10% max)	1	LS	\$55,475.00		10% of Construction Sub-Total	corridor specific reoc
Sedimentation and Erosion Control Measures	550	LFT	\$10.00		\$10/LFT/Corridor	
Maintenance and Traffic Control	550	LFT	\$20.00	\$11,000.00	\$20/LFT/Corridor	
Demolition			·			
Remove Street Trees	9	EA	\$400.00	\$3,500.00	Roughly 1/4 of Short Term	
Remove or Remove and Replace Site Furnishings	1	LS	\$1,000.00	\$1,000.00	Roughly 1/4 of Short Term	
Remove Hardscape (Sidewalk, Road, Paving Etc.)	8800	SFT	\$5.00	\$44,000.00		
Remove Vehicular Concrete	0000	SFT	\$3.00	\$0.00		
Remove Asphalt		SFT	\$2.00	\$0.00		
Remove Pedestrian Hardscape		SFT	\$3.00	\$0.00		
Remove Curb and Gutter		LFT	\$15.00	\$0.00		
Remove and Replace Light Pole		EA	\$2,500.00	\$0.00		
Remove and Relocate Light Pole		EA	\$2,000.00	\$0.00		
Remove Planter	0	EA	\$4,000.00	\$0.00		
Miscellaneous Utility Relocation	550	LFT	\$25.00	· ·	\$25/LFT/Corridor	
Now Construction						
New Construction Site Grading	1	LS	\$8,000.00	\$8,000.00		
Street Trees	38	EA	\$8,000.00 \$650.00		Based upon 30' spacing between trees	
New Planter	2	EA	\$12,000.00		All new designed seat wall planter	
New Hunter	_	L/ (712,000.00		\$50/LFT cap and \$30/sf, plus added \$2,500	
Planter Resurface		EA	\$9,000.00		for materiality contingency	
Structural Soil (Tree Planting)	760	CYD	\$125.00		20 CYD/Tree	
Patio Rail	, 00	LFT	\$80.00		by business owner	
Underground Electrical Line (Conduit, Wire, Fittings, Connections)	1,100	LFT	\$10.00	\$11,000.00	-,	
Irrigation	550	LFT	\$2.00	\$1,100.00		
Pedestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)		EA	\$2,500.00	\$0.00		
Sidewalk Pavers (Including Base)	3,520	SFT	\$20.00	\$70,400.00		
Concrete Sidewalk 4" (Including Base)	5,280	SFT	\$10.00	\$52,800.00		
Concrete Sidewalk 4"	100	SFT	\$10.00	\$1,000.00		
Reinforced Concrete (Crosswalk Band)		LFT	\$35.00	\$0.00		
Curb Ramp with Truncated Domes		EA	\$1,500.00	\$0.00		
Permeable Pavers (Vehicular Parking)		SFT	\$15.00	\$0.00		
Brick (Vehicular Drive Lanes and Bike Lanes)		SFT	\$20.00	\$0.00		
Concrete Base for Pavers (Penniman Shared Street)		SYD	\$75.00	\$0.00		
Bollard (Vehicular, Retractabe)(Penniman Shared Street)		EA	\$6,000.00	\$0.00		
Bollard (Parkingr, Retractabe)(Penniman Shared Street)		EA	\$3,000.00	\$0.00		
Roadway Reconstruction with 8" Aggregate Base and 7" HMA		LS	\$0.00	\$0.00		
Reinforced Concrete (Band)		LFT	\$30.00	\$0.00		
Intersection Mast Arms		EA	\$300,000.00	\$0.00		
Midblock Crossing		EA	\$6,500.00	\$0.00	New Signage and Pavement Markings	
Utility Box Beautification (Art/Wayfinding)		EA	\$3,000.00	\$0.00		
New Hardscape Construction	1	LS	\$30,000.00		Specialty hardscape- curb bumpouts, etc.	
Site Furnishings	1	LS	\$3,000.00		Half cost of short term	
Drinking Fountain	1	EA	\$5,000.00	\$5,000.00		
Bury Overhead Utility Lines	750	LFT	\$200.00	\$150,000.00		
Fraffic Signage	-	ΕΛ	¢500.00		New signage for Back in Parking and Shared	
Traffic Signage	6	EA EA	\$500.00 \$1.500.00	\$3,000.00		
Wayfinding Signage	3	EA	\$1,500.00	\$4,500.00		
Painted Murals		SFT	\$35.00	\$0.00		
Gateway Sculpture		EA EA	\$17,500.00 \$15,000.00	\$0.00 \$0.00		
Gateway Site Improvements Upgrade Street Light Fixture to LED	12	EA	\$15,000.00	\$0.00 \$24,444.44		
			Construction Sub Total	\$642,169.44		
	Design -	nd Constr	Contingencies (20%)	\$128,433.89		
	Design a	na Construc	ction Engineering (Estimated 20%)	\$128,433.89		
			Long Term Estimated Total:	\$899,037.22		
			Estimated Corridor Grand Total:	\$958,416.82		



Plymouth DDA Corridor Improvements Harvey St. S Corridor Schematic Design Cost Estimate Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Short Term Annual Maintenance Tasks						
Item	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Note
Maintenance and Traffic Control	720	LFT	\$15.00	\$10,800.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year	
					3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	403.2	SFT	\$3.00	\$1,209.60	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	28.8	LFT	\$15.00	\$432.00	Maintenance and Repairs	
Miscellaneous Utility Work	720	LFT	\$5.00	\$3,600.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
Tree Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00	\$650.00	1 Tree/Corridor/Year	
Tree Trimming	1	EA	\$200.00	\$200.00	\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00	\$1,000.00	\$1000/Corridor/Year	
Landscape Restoration	720	LFT	\$2.00	\$1,440.00	\$2/LFT/COR - Maintenance and Repairs	
Irrigation Repair	720	LFT	\$2.00	\$1,440.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	29	LFT	\$30.00	\$864.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	403	SFT	\$10.00	\$4,032.00	Maintenance and Repairs	
					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	86	SFT	\$20.00	\$1,728.00	Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00	\$1,500.00	1 Crosswalk/Corridor/Year	
Pavement Markings	720	LFT	\$2.00	\$1,440.00	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00	\$500.00	\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00		\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00	\$2,750.00	\$2750/Corridor/Year	
			Construction Sub Total	\$47,985.60		
	•		Contingencies (20%)	\$9,597.12		
	Design a	and Construc	tion Engineering (Estimated 20%)	\$9,597.12		
			Short Term Estimated Total:	\$67,179.84		

Capital Improvement Projects						
tem	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Not
lobilization (10% max)	1	LS	\$74,644.00	. ,	10% of Construction Sub-Total	
edimentation and Erosion Control Measures	720	LFT	\$10.00		\$10/LFT/Corridor	
Maintenance and Traffic Control	720	LFT	\$20.00	\$14,400.00	\$20/LFT/Corridor	
Demolition						
emove Street Trees	2	EA	\$400.00	\$700.00	Roughly 1/4 of Short Term	
emove or Remove and Replace Site Furnishings	1	LS	\$2,000.00	\$2,000.00		
temove Hardscape (Sidewalk, Road, Paving Etc.)		SFT	\$5.00	\$0.00		
emove Vehicular Concrete		SFT	\$3.00	\$0.00		
temove Asphalt		SFT	\$2.00	\$0.00		
Remove Pedestrian Hardscape		SFT	\$3.00	\$0.00		
Remove Curb and Gutter		LFT	\$15.00	\$0.00		
Remove and Replace Light Pole		EA	\$2,500.00	\$0.00		
Remove and Relocate Light Pole		EA	\$2,000.00	\$0.00		
Remove Planter	0	EA	\$4,000.00	\$0.00		
Aiscellaneous Utility Relocation	720	LFT	\$25.00	\$18,000.00	\$25/LFT/Corridor	
New Construction						
ite Grading	1	LS	\$80,000.00	\$80,000.00	1	
treet Trees	8	EA	\$650.00		Based upon 30' spacing between trees	
New Planter		EA	\$12,000.00		All new designed seat wall planter	
			, ,	,	\$50/LFT cap and \$30/sf, plus added \$2,500	
Planter Resurface		EA	\$9,000.00	\$0.00	for materiality contingency	
Structural Soil (Tree Planting)	160	CYD	\$125.00		20 CYD/Tree	
ratio Rail		LFT	\$80.00		by business owner	
Inderground Electrical Line (Conduit, Wire, Fittings, Connections)		LFT	\$10.00	\$0.00	1 · ·	
rrigation	720	LFT	\$2.00	\$1,440.00		
redestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)	720	EA	\$2,500.00	\$0.00		
idewalk Pavers (Including Base)		SFT	\$20.00	\$0.00		
Concrete Sidewalk 4" (Including Base)		SFT	\$10.00	\$0.00		
Concrete Sidewalk 4"	500	SFT	\$10.00	\$5,000.00		
teinforced Concrete (Crosswalk Band)	300	LFT	\$35.00	\$0.00		
Curb Ramp with Truncated Domes	2	EA	\$1,500.00	\$3,000.00		
Permeable Pavers (Vehicular Parking)	2	SFT	\$1,500.00	\$0.00		
Brick (Vehicular Drive Lanes and Bike Lanes)		SFT	\$20.00	\$0.00		
Concrete Base for Pavers (Penniman Shared Street)		SYD	\$20.00 \$75.00	\$0.00		
Bollard (Vehicular, Retractabe)(Penniman Shared Street)		EA	\$6,000.00	\$0.00		
		EA	\$3,000.00	\$0.00		
Bollard (Parkingr, Retractabe)(Penniman Shared Street)	1					
loadway Reconstruction with 8" Aggregate Base and 7" HMA	1	LS LFT	\$580,000.00 \$30.00	\$580,000.00 \$0.00		
einforced Concrete (Band)						
ntersection Mast Arms		EA	\$300,000.00	\$0.00		
Aidblock Crossing	1	EA	\$6,500.00		New Signage and Pavement Markings	
Jtility Box Beautification (Art/Wayfinding)		EA	\$3,000.00	\$0.00		
New Hardscape Construction		LS	\$0.00		Specialty hardscape- curb bumpouts, etc.	
ite Furnishings	1	LS	\$3,000.00		Half cost of short term	
Orinking Fountain		EA	\$5,000.00	\$0.00		
ury Overhead Utility Lines		LFT	\$200.00	\$0.00	New signage for Back in Parking and Shared	
raffic Signage		EA	\$500.00	¢n nn	Street	
Vayfinding Signage	2	EA	\$1,500.00	\$0.00		
, , , , ,	2	SFT	\$1,500.00 \$35.00	\$3,000.00		
rainted Murals						
Sateway Sculpture		EΑ	\$17,500.00	\$0.00 \$0.00		
Gateway Site Improvements Jpgrade Street Light Fixture to LED	16	EA EA	\$15,000.00 \$2,000.00	\$0.00 \$32,000.00		
			Construction Sub Total	\$856,084.00		
	Design a	nd Constructi	Contingencies (20%) on Engineering (Estimated 20%)	\$171,216.80 \$171,216.80		
			Long Term Estimated Total:	\$1,198,517.60		



Plymouth DDA Corridor Improvements Harvey St. N Corridor Schematic Design Cost Estimate Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Short Term Annual Maintenance Tasks								
ltem	Quantity	Unit	Unit Price	Total Cost		Corridor Specific Note		
Maintenance and Traffic Control	1100	LFT	\$15.00	\$16,500.00	\$15/LFT/Corridor			
Demolition								
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition			
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year			
					3.5% of Sidewalk/Corridor/ Year -			
Remove Concrete Sidewalk	616	SFT	\$3.00	\$1,848.00	Maintenance and Repairs			
					2% of Curb and Gutter/Corridor/Year -			
Remove Curb and Gutter	44	LFT	\$15.00	\$660.00	Maintenance and Repairs			
Miscellaneous Utility Work	1100	LFT	\$5.00	\$5,500.00	\$5/LFT/corridor - Maintenance and Repairs			
New Construction								
Tree Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year			
Street Tree (Replacement)	1	EA	\$650.00	\$650.00	1 Tree/Corridor/Year			
Tree Trimming	7	EA	\$200.00	\$1,400.00	\$200/Tree/Year			
Planter box Maintenance	1	AL	\$1,000.00	\$1,000.00	\$1000/Corridor/Year			
Landscape Restoration	1,100	LFT	\$2.00	\$2,200.00	\$2/LFT/COR - Maintenance and Repairs			
Irrigation Repair	1,100	LFT	\$2.00	\$2,200.00	\$2/LFT/COR - Maintenance and Repairs			
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year			
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year			
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year			
					2% of Curb and Gutter/Corridor/Year -			
Standard Curb and Gutter	44	LFT	\$30.00	\$1,320.00	Maintenance and Repairs			
					3.5% of Sidewalk/Corridor/ Year -			
Concrete Sidewalk 4" (Replacement)	616	SFT	\$10.00	\$6,160.00	Maintenance and Repairs			
					1.5% of Sidewalk/Corridor/ Year -			
Sidewalk Paver Repair	132	SFT	\$20.00	\$2,640.00	Maintenance and Repairs			
Crosswalk Re-Striping	1	AL	\$1,500.00		1 Crosswalk/Corridor/Year			
Pavement Markings	1100	LFT	\$2.00		\$2/LFT/COR - Maintenance and Repairs			
Bumper Block Replacement	1	AL	\$500.00		\$500/Corridor/Year			
Sign Maintenance	1	AL	\$2,000.00		\$2000/Corridor/Year			
Reseal and Restripe Parking lots	1	AL	\$2,000.00		\$2000/Corridor/Year			
Painting Light poles	1	AL	\$2,750.00		\$2750/Corridor/Year			
			Construction Sub Total	\$63,428.00				
			Contingencies (20%)	\$12,685.60				
	Design a	and Construct	ion Engineering (Estimated 20%)	\$12,685.60				
			Short Term Estimated Total:	\$88.799.20				

Capital Improvement Projects						
tem	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Note
Mobilization (10% max)	1	LS	\$126,335.00		10% of Construction Sub-Total	•
Sedimentation and Erosion Control Measures	1100	LFT	\$10.00		\$10/LFT/Corridor	
Maintenance and Traffic Control	1100	LFT	\$20.00		\$20/LFT/Corridor	
Demolition					1	
Remove Street Trees	3	EA	\$400.00	\$1,300.00	Roughly 1/4 of Short Term	
Remove or Remove and Replace Site Furnishings	1	LS	\$2,000.00	\$2,000.00	Rodginy 1/4 or Short Term	
Remove Hardscape (Sidewalk, Road, Paving Etc.)	-	SFT	\$5.00	\$0.00		
Remove Vehicular Concrete		SFT	\$3.00	\$0.00		
Remove Asphalt		SFT	\$2.00	\$0.00		
Remove Pedestrian Hardscape		SFT	\$3.00	\$0.00		
Remove Curb and Gutter		LFT	\$15.00	\$0.00		
Remove and Replace Light Pole		EA	\$2,500.00	\$0.00		
Remove and Relocate Light Pole		EA	\$2,000.00	\$0.00		
Remove Planter	0	EA	\$4,000.00	\$0.00		
Miscellaneous Utility Relocation	1100	LFT	\$25.00		\$25/LFT/Corridor	
New Construction						
Site Grading	1	LS	\$8,000.00	\$8,000.00	1	
Street Trees	9	EA	\$650.00		Based upon 30' spacing between trees	
New Planter	3	EA	\$12,000.00		All new designed seat wall planter	
			, ,	,	\$50/LFT cap and \$30/sf, plus added \$2,500	
Planter Resurface		EA	\$9,000.00	\$0.00	for materiality contingency	
Structural Soil (Tree Planting)	180	CYD	\$125.00		20 CYD/Tree	
Patio Rail		LFT	\$80.00		by business owner	
Underground Electrical Line (Conduit, Wire, Fittings, Connections)		LFT	\$10.00	\$0.00		
Irrigation	1,100	LFT	\$2.00	\$2,200.00		
Pedestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)	_,	EA	\$2,500.00	\$0.00		
Sidewalk Pavers (Including Base)		SFT	\$20.00	\$0.00		
Concrete Sidewalk 4" (Including Base)		SFT	\$10.00	\$0.00		
Concrete Sidewalk 4"	500	SFT	\$10.00	\$5,000.00		
Reinforced Concrete (Crosswalk Band)		LFT	\$35.00	\$0.00		
Curb Ramp with Truncated Domes	2	EA	\$1,500.00	\$3,000.00		
Permeable Pavers (Vehicular Parking)		SFT	\$15.00	\$0.00		
Brick (Vehicular Drive Lanes and Bike Lanes)		SFT	\$20.00	\$0.00		
Concrete Base for Pavers (Penniman Shared Street)		SYD	\$75.00	\$0.00		
Bollard (Vehicular, Retractabe)(Penniman Shared Street)		EA	\$6,000.00	\$0.00		
Bollard (Parkingr, Retractabe)(Penniman Shared Street)		EA	\$3,000.00	\$0.00		
Roadway Reconstruction with 8" Aggregate Base and 7" HMA	1	LS	\$920,000.00	\$920,000.00		
Reinforced Concrete (Band)		LFT	\$30.00	\$0.00		
Intersection Mast Arms		EA	\$300,000.00	\$0.00		
Midblock Crossing		EA	\$6,500.00		New Signage and Pavement Markings	
Utility Box Beautification (Art/Wayfinding)		EA	\$3,000.00	\$0.00		
New Hardscape Construction	1	LS	\$10,000.00	•	Specialty hardscape- curb bumpouts, etc.	
Site Furnishings	1	LS	\$3,000.00		Half cost of short term	
Drinking Fountain	_	EA	\$5,000.00	\$0.00		
Bury Overhead Utility Lines	1,100	LFT	\$200.00	\$220,000.00		
Troffic Signers		ΕΛ.	Á500.00		New signage for Back in Parking and Shared	
Traffic Signage	_	EA	\$500.00		Street	
Wayfinding Signage	2	EA	\$1,500.00	\$3,000.00		
Painted Murals		SFT	\$35.00	\$0.00		
Gateway Sculpture		EA	\$17,500.00	\$0.00		
Gateway Site Improvements	24	EA EA	\$15,000.00 \$2,000.00	\$0.00 \$48,888.89		
pgrade Street Light Fixture to LED	24	LA				
			Construction Sub Total	\$1,441,573.89		
	Design a	nd Construc	Contingencies (20%) ion Engineering (Estimated 20%)	\$288,314.78 \$288,314.78		
			Long Term Estimated Total:	\$2,018,203.44	1	



Plymouth DDA Corridor Improvements Main St. N Corridor Schematic Design Cost Estimate

Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Short Term Annual Maintenance Tasks					Consul Nata	
Item	Quantity	Unit	Unit Price	Total Cost		Corridor Specific Note
Maintenance and Traffic Control	840	LFT	\$15.00	\$12,600.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year	
					3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	470.4	SFT	\$3.00	\$1,411.20	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	33.6	LFT	\$15.00	\$504.00	Maintenance and Repairs	
Miscellaneous Utility Work	840	LFT	\$5.00	\$4,200.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
Tree Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00	\$650.00	1 Tree/Corridor/Year	
Tree Trimming	27	EA	\$200.00	\$5,400.00	\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00	\$1,000.00	\$1000/Corridor/Year	
Landscape Restoration	840	LFT	\$2.00	\$1,680.00	\$2/LFT/COR - Maintenance and Repairs	
Irrigation Repair	840	LFT	\$2.00	\$1,680.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	34	LFT	\$30.00	\$1,008.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	470	SFT	\$10.00	\$4,704.00	Maintenance and Repairs	
					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	101	SFT	\$20.00	\$2,016.00	Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00		1 Crosswalk/Corridor/Year	
Pavement Markings	840	LFT	\$2.00	\$1,680.00	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00	\$500.00	\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00		\$2750/Corridor/Year	
			Construction Sub Total	\$57,683.20		
			Contingencies (20%)	\$11,536.64		
	Design a	nd Constructi	on Engineering (Estimated 20%)	\$11,536.64		
			Short Term Estimated Total:	\$80,756.48		

	Capital Improvement Projects						
Seathermanian and Prototic Control Newsork 1940 17 5,1000 58,84,0000 57,0	Item	Quantity		Unit Price			Corridor Specific Note
Mathematical Profession Pro	Mobilization (10% max)						
Permitted Perm							
Section Continue	Maintenance and Traffic Control	840	LFT	\$20.00	\$16,800.00	\$20/LFT/Corridor	
Section Sect	Demolition						
Section Sect	temove Street Trees	7	EA	\$400.00	\$2,700.00	Roughly 1/4 of Short Term	
Section Sect	Remove or Remove and Replace Site Furnishings	1	LS				
STT \$3.00 \$0.00	· · · · · · · · · · · · · · · · · · ·	13440	SFT		\$67,200.00		
### ST			SFT				
## STATE OF THE PROTECTION OF	emove Asphalt		SFT	\$2.00	\$0.00		
### STATE OF THE PRINTING STATE OF THE PRINT	temove Pedestrian Hardscape		SFT	\$3.00	\$0.00		
Earning and Replace Light Pole EA \$1,500.00 50.00	•		LFT				
## State Sta	emove and Replace Light Pole						
### Section Se	. •						
Secolators Unity Reforation Secolator	<u> </u>						
1		840				\$25/LFT/Corridor	
Treet Trees Pace Session Sess	lew Construction						
reset Trees	te Grading	1	LS	\$5,000.00	\$5,000.00	1	
March Resurface Fab. Sal, 20,000.00 Sal, 20,000.00 Sal, 20,000.00 Sal, 1 rew designed segle will planter Sal, 20,000.00 Sal, 2	•					Based upon 30' spacing between trees	
Solution							
EA \$9,000,000 \$1,000 \$		-		¥12,000.00	+ .0,000.00		
Tructural 50 [Tree Planting] 180	lanter Resurface		EA	\$9.000.00	\$0.00		
LFT \$80.00 \$0.00		180					
Indeptorus 1,750		100			. ,	•	
Inspation S40 IFT S.200 S.1680.00 S.00 S.1680.00 S.107.520.00 S.1		1 750				-,	
Each Stand Pole Lighting (Replace Fixtures-install Salvaged Poles) 5,376 5FT \$10.00 \$80,640.00							
Idea was Including Base 5,376 SFT 5,00.0 5,107,52,0.0		040					
Section Sect		5 376					
Section Sect					. ,		
einforced Concrete (Crosswalk Band) with Ramp with Truncated Domes							
urb Ramp with Truncated Domes		300					
SFT \$15.00 \$0.00							
SFT \$20.00 \$0.00	•						
SYD	· · · · · · · · · · · · · · · · · · ·						
Solitar Cychicular, Retractabe) Penniman Shared Street	·						
Sample S							
oadway Reconstruction with 8" Aggregate Base and 7" HMA LS \$0.00 \$0.00 einforced Concrete (Band) LFT \$30.00 \$0.00 trescrection Mast Arms 1 EA \$300,000.00 \$300,000.00 At Church Street Intersect I							
LFT							
tersection Mask Arms 1 EA \$300,000.00 \$300,000.00 New Signage and Pavement Markings tidblock Crossing EA \$6,500.00 \$0.00 New Signage and Pavement Markings tidlity Box Beautification (Art/Wayfinding) EA \$3,000.00 \$0.00 Sepcialty hardscape- curb bumpouts, etc. 1 EV \$3,000.00 \$3,000.00 Half cost of short term rinking Fountain 1 EA \$5,000.00 \$5,000.00 New signage and Pavement Markings tidlity Box Beautification (Art/Wayfinding) 1 EA \$5,000.00 \$3,000.00 Half cost of short term rinking Fountain 1 EA \$5,000.00 \$5,000.00 New signage for Back in Parking and Shared Pavement Markings Street Faffic Signage 1 EA \$5,000.00 \$4,500.00 Street Faffic Signage 3 EA \$5,000.00 \$4,500.00 Street Faffic Signage 3 EA \$1,500.00 \$4,500.00 \$0.00 Street Faffic Signage 3 EA \$1,500.00 \$4,500.00 \$0.00 Street Faffic Signage 3 EA \$1,500.00 \$4,500.00 \$0.00 Street Faffic Signage 3 EA \$1,500.00 \$1,500.00 \$0.00 Street Faffic Signage 3 EA \$1,700.00 \$1,7							
Fideblock Crossing EA \$6,500.00 \$0.00	• •						
tility Box Beautification (Art/Wayfinding) we Hardscape Construction LS \$3,000.00 \$0.00		1					At Church Street Intersection
LS \$0.00 \$0.							
LS							
Find Foundation 1 EA \$5,000.00 \$5,000.00 \$5,000.00 \$0.	•						
LFT \$200.00 \$0.00 New signage for Back in Parking and Shared						Half cost of short term	
New signage for Back in Parking and Shared Street FA \$500.00 \$0.0	•	1					
EA \$500.00 \$10000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000	ury Overhead Utility Lines		LFT	\$200.00	\$0.00		
SFT \$35.00 \$0.00 \$4,50	raffic Signage		FA	\$500.00	\$ በ በበ		
SFT \$35.00 \$0.00 ateway Sculpture		2					
At Church Street Intersect street Street Light Fixture to LED Construction Sub Total Contingencies (20%) Design and Construction Engineering (Estimated 20%) Long Term Estimated Total: \$1,211,003.27		3					
EA \$15,000.00		1					At Church Street Intersection
Pgrade Street Light Fixture to LED 19 EA \$2,000.00 \$37,333.33 Construction Sub Total							At Charles Street Intersecti
Contingencies (20%) \$173,000.47 Design and Construction Engineering (Estimated 20%) \$173,000.47 Long Term Estimated Total: \$1,211,003.27				• •			
Contingencies (20%) \$173,000.47 Design and Construction Engineering (Estimated 20%) \$173,000.47 Long Term Estimated Total: \$1,211,003.27				Construction Sub Total	\$865.002.33		
Design and Construction Engineering (Estimated 20%) \$173,000.47 Long Term Estimated Total: \$1,211,003.27							
		Design ar	nd Construct				
				Long Term Estimated Total:	\$1,211,003.27		



Plymouth DDA Corridor Improvements

Main St. Central Corridor Schematic Design Cost Estimate Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Short Term Annual Maintenance Tasks						
tem	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Note
Maintenance and Traffic Control	260	LFT	\$15.00	\$3,900.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year	
-					3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	145.6	SFT	\$3.00	\$436.80	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	10.4	LFT	\$15.00	\$156.00	Maintenance and Repairs	
Miscellaneous Utility Work	260	LFT	\$5.00	\$1,300.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
Free Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00	\$650.00	1 Tree/Corridor/Year	
Tree Trimming	18	EA	\$200.00		\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00		\$1000/Corridor/Year	
andscape Restoration	260	LFT	\$2.00	\$520.00	\$2/LFT/COR - Maintenance and Repairs	
rrigation Repair	260	LFT	\$2.00	\$520.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	10	LFT	\$30.00	\$312.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	146	SFT	\$10.00	\$1,456.00	Maintenance and Repairs	
					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	31	SFT	\$20.00	\$624.00	Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00		1 Crosswalk/Corridor/Year	
Pavement Markings	260	LFT	\$2.00	. ,	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00		\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00		\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00		\$2750/Corridor/Year	
			Construction Sub Total	\$34,144.80		
			Contingencies (20%)	\$6,828.96		
	Design a	nd Construc	tion Engineering (Estimated 20%)	\$6,828.96		
			Short Term Estimated Total:	\$47,802.72		

Canital Improvement Projects						
Capital Improvement Projects Item	Orrantit	Unit	Hait Brica	Total Cost	General Note	Corridor Specific Nata
	Quantity	Unit	Unit Price	Total Cost		Corridor Specific Note
Mobilization (10% max)	1	LS	\$13,737.00		10% of Construction Sub-Total	
Sedimentation and Erosion Control Measures	260	LFT	\$10.00		\$10/LFT/Corridor \$20/LFT/Corridor	
Maintenance and Traffic Control	260	LFT	\$20.00	\$5,200.00	320/EF1/C011Id01	
Demolition						
Remove Street Trees	5	EA	\$400.00	\$1,800.00	Roughly 1/4 of Short Term	
Remove or Remove and Replace Site Furnishings	1	LS	\$3,000.00	\$3,000.00		
Remove Hardscape (Sidewalk, Road, Paving Etc.)	4160	SFT	\$5.00	\$20,800.00		
Remove Vehicular Concrete		SFT	\$3.00	\$0.00		
Remove Asphalt		SFT	\$2.00	\$0.00		
Remove Pedestrian Hardscape		SFT	\$3.00	\$0.00		
lemove Curb and Gutter		LFT	\$15.00	\$0.00		
lemove and Replace Light Pole		EA	\$2,500.00	\$0.00		
lemove and Relocate Light Pole		EA	\$2,000.00	\$0.00		
emove Planter		EA	\$4,000.00	\$0.00		
Aiscellaneous Utility Relocation	260	LFT	\$25.00	\$6,500.00	\$25/LFT/Corridor	
New Construction						
ite Grading	1	LS	\$2,000.00	\$2,000.00		
treet Trees	8	EA	\$650.00		Based upon 30' spacing between trees	
New Planter		EA	\$12,000.00		All new designed seat wall planter	
			. ,		\$50/LFT cap and \$30/sf, plus added \$2,500	
Planter Resurface		EA	\$9,000.00		for materiality contingency	
tructural Soil (Tree Planting)	160	CYD	\$125.00		20 CYD/Tree	
atio Rail		LFT	\$80.00		by business owner	
Inderground Electrical Line (Conduit, Wire, Fittings, Connections)	1	LFT	\$10.00	\$10.00	.,	
rrigation	260	LFT	\$2.00	\$520.00		
edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)	200	EA	\$2,500.00	\$0.00		
idewalk Pavers (Including Base)	1,664	SFT	\$20.00	\$33,280.00		
Concrete Sidewalk 4" (Including Base)	2,496	SFT	\$10.00	\$24,960.00		
Concrete Sidewalk 4"	100	SFT	\$10.00	\$1,000.00		
teinforced Concrete (Crosswalk Band)	100	LFT	\$35.00	\$0.00		
				\$0.00		
Curb Ramp with Truncated Domes		EA SFT	\$1,500.00			
ermeable Pavers (Vehicular Parking)			\$15.00	\$0.00 \$0.00		
trick (Vehicular Drive Lanes and Bike Lanes)		SFT	\$20.00			
Concrete Base for Pavers (Penniman Shared Street)		SYD	\$75.00	\$0.00		
Hollard (Vehicular, Retractabe)(Penniman Shared Street)		EA	\$6,000.00	\$0.00		
ollard (Parkingr, Retractabe)(Penniman Shared Street)		EA	\$3,000.00	\$0.00		
loadway Reconstruction with 8" Aggregate Base and 7" HMA		LS	0	\$0.00		
einforced Concrete (Band)		LFT	\$30.00	\$0.00		
ntersection Mast Arms		EA	\$300,000.00	\$0.00	No. of Contract and Base and B	
Midblock Crossing		EA	\$6,500.00		New Signage and Pavement Markings	
Jtility Box Beautification (Art/Wayfinding)		EA	\$3,000.00	\$0.00		
lew Hardscape Construction	1	LS	7,500		Specialty hardscape- curb bumpouts, etc.	
ite Furnishings	1	LS	3,000		Half cost of short term	
Prinking Fountain		EA	\$5,000.00	\$0.00		
ury Overhead Utility Lines		LFT	\$200.00	\$0.00		
				_	New signage for Back in Parking and Shared	
raffic Signage		EA	\$500.00		Street	
Vayfinding Signage	1	EA	\$1,500.00	\$1,500.00		
ainted Murals	750	SFT	\$35.00	\$26,250.00		In alley to Fleetstreet Parking Dec
Sateway Sculpture		EA	\$17,500.00	\$0.00		
ateway Site Improvements		EA	\$15,000.00	\$0.00		
pgrade Street Light Fixture to LED	6	EA	\$2,000.00	\$11,555.56		
			Construction Sub Total	\$190,412.56		
	·		Contingencies (20%)	\$38,082.51		
	Design a	nd Construc	tion Engineering (Estimated 20%)	\$38,082.51		
			Long Term Estimated Total:	\$266,577.58		
			Estimated Corridor Grand Total:	\$314,380.30		



Plymouth DDA Corridor Improvements Main St. S Corridor Schematic Design Cost Estimate Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Short Term Annual Maintenance Tasks					Canada Nata	
Item	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Note
Maintenance and Traffic Control	745	LFT	\$15.00	\$11,175.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year	
					3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	417.2	SFT	\$3.00	\$1,251.60	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	29.8	LFT	\$15.00	\$447.00	Maintenance and Repairs	
Miscellaneous Utility Work	745	LFT	\$5.00	\$3,725.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
Tree Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00	\$650.00	1 Tree/Corridor/Year	
Tree Trimming	28	EA	\$200.00	\$5,600.00	\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00	\$1,000.00	\$1000/Corridor/Year	
Landscape Restoration	745	LFT	\$2.00	\$1,490.00	\$2/LFT/COR - Maintenance and Repairs	
Irrigation Repair	745	LFT	\$2.00	\$1,490.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	30	LFT	\$30.00	\$894.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	417	SFT	\$10.00	\$4,172.00	Maintenance and Repairs	
					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	89	SFT	\$20.00	\$1,788.00	Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00	\$1,500.00	1 Crosswalk/Corridor/Year	
Pavement Markings	745	LFT	\$2.00	\$1,490.00	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00	\$500.00	\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00	\$2,750.00	\$2750/Corridor/Year	
			Construction Sub Total	\$54,322.60		
			Contingencies (20%)	\$10,864.52		
	Design ar	nd Construction	n Engineering (Estimated 20%)	\$10,864.52		
			Short Term Estimated Total:	\$76,051.64		

Mobilization (10% max) Sedimentation and Erosion Control Measures Maintenance and Traffic Control Demolition Remove Street Trees Remove or Remove and Replace Site Furnishings	1 11920 745 180 1,490	Unit LS LFT LFT EA LS SFT SFT SFT LFT EA EA EA LFT	\$68,469.50 \$10.00 \$20.00 \$400.00 \$3,000.00 \$5.00 \$3.00 \$15.00 \$2,500.00 \$2,500.00 \$4,000.00 \$25.00	\$7,450.00 \$14,900.00 \$3,000.00 \$59,600.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$5,000 \$5,850.00	General Note 10% of Construction Sub-Total \$10/LFT/Corridor \$20/LFT/Corridor Roughly 1/4 of Short Term \$25/LFT/Corridor	Corridor Specific Not
Redimentation and Erosion Control Measures Maintenance and Traffic Control Demolition Remove Street Trees Remove or Remove and Replace Site Furnishings Remove Hardscape (Sidewalk, Road, Paving Etc.) Remove Vehicular Concrete Remove Asphalt Remove Pedestrian Hardscape Remove and Replace Light Pole Remove and Replace Light Pole Remove and Relocate Light Pole Remove Planter Miscellaneous Utility Relocation New Construction Site Grading Street Trees New Planter Planter Resurface Structural Soil (Tree Planting) Padio Rail Underground Electrical Line (Conduit, Wire, Fittings, Connections) Pedestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) Sidewalk Pavers (Including Base) Concrete Sidewalk 4" (Including Base)	745 745 1 111920 745 1 9 4 180 1,490	LFT LFT EA LS SFT SFT SFT LFT EA EA LFT LS EA EA EA	\$10.00 \$20.00 \$400.00 \$3,000.00 \$5.00 \$3.00 \$15.00 \$2,500.00 \$2,000.00 \$4,000.00 \$25.00	\$7,450.00 \$14,900.00 \$3,000.00 \$59,600.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$5,000 \$5,850.00	\$10/LFT/Corridor \$20/LFT/Corridor Roughly 1/4 of Short Term	
Admintenance and Traffic Control Demolition Temove Street Trees Temove or Remove and Replace Site Furnishings Temove Hardscape (Sidewalk, Road, Paving Etc.) Temove Vehicular Concrete Temove Asphalt Temove Pedestrian Hardscape Temove Curb and Gutter Temove and Replace Light Pole Temove and Replace Light Pole Temove Planter Temove Planter Temove Planter Temove Utility Relocation The Grading Treet Trees Trees Tem Planter Talanter Resurface Tructural Soil (Tree Planting) Trigation Tedestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) Trigation Tedestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) Temover Sidewalk 4" Temorcet Sidewalk 4" Temorcet Concrete (Crosswalk Band) Temor Ramp with Truncated Domes Termeable Pavers (Vehicular Parking) Trick (Vehicular Drive Lanes and Bike Lanes) Temore Temover Temoral Temoral Temoral Street)	745 1 11920 745 1 9 4 180 1,490	EA LS SFT SFT SFT LFT EA EA LFT LS EA EA LFT	\$20.00 \$400.00 \$3,000.00 \$5.00 \$3.00 \$2.00 \$3.00 \$15.00 \$2,500.00 \$2,000.00 \$4,000.00 \$25.00	\$14,900.00 \$3,000.00 \$59,600.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$18,625.00	\$20/LFT/Corridor Roughly 1/4 of Short Term	
emove Street Trees emove or Remove and Replace Site Furnishings emove Hardscape (Sidewalk, Road, Paving Etc.) emove Vehicular Concrete emove Asphalt emove Pedestrian Hardscape emove Curb and Gutter emove and Replace Light Pole emove and Replace Light Pole emove Planter discellaneous Utility Relocation Iew Construction ite Grading treet Trees lew Planter lanter Resurface tructural Soil (Tree Planting) atio Rail Inderground Electrical Line (Conduit, Wire, Fittings, Connections) rigation edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) idewalk Pavers (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)	1 11920 745 1 9 4 180 1,490	EA LS SFT SFT SFT LFT EA EA LFT LFT LFT EA EA EA LFT	\$400.00 \$3,000.00 \$5.00 \$3.00 \$2.00 \$3.00 \$15.00 \$2,500.00 \$2,000.00 \$4,000.00 \$25.00	\$0.00 \$3,000.00 \$59,600.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$18,625.00	Roughly 1/4 of Short Term	
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demove and Relocate Light Pole demove Planter Aliscellaneous Utility Relocation New Construction dite Grading treet Trees dew Planter Ilanter Resurface tructural Soil (Tree Planting) atio Rail Inderground Electrical Line (Conduit, Wire, Fittings, Connections) rrigation dedestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) didewalk Pavers (Including Base) doncrete Sidewalk 4" (Including Base) doncrete Sidewalk 4" deinforced Concrete (Crosswalk Band) durb Ramp with Truncated Domes dermeable Pavers (Vehicular Parking) drick (Vehicular Drive Lanes and Bike Lanes) doncrete Base for Pavers (Penniman Shared Street)	1 9 4 180	EA EA LFT LS EA EA	\$2,000.00 \$4,000.00 \$25.00 \$5,000.00 \$650.00	\$0.00 \$0.00 \$18,625.00 \$5,000.00 \$5,850.00	\$25/LFT/Corridor	
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Alscellaneous Utility Relocation Jew Construction ite Grading treet Trees lew Planter Ilanter Resurface tructural Soil (Tree Planting) atio Rail Inderground Electrical Line (Conduit, Wire, Fittings, Connections) trigation edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) idewalk Pavers (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" (elncluding Base) oncrete Sidewalk 4" eleinforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)	1 9 4 180	LFT LS EA EA	\$25.00 \$5,000.00 \$650.00	\$18,625.00 \$5,000.00 \$5,850.00	\$25/LFT/Corridor	
Item Construction Ite Grading Itreet Trees ew Planter Idanter Resurface Itructural Soil (Tree Planting) Item Conduit, Wire, Fittings, Connections) Item C	1 9 4 180	LS EA EA	\$5,000.00 \$650.00	\$5,000.00 \$5,850.00	4 25/2 1/6011601	
treet Trees ew Planter Idanter Resurface tructural Soil (Tree Planting) atio Rail Inderground Electrical Line (Conduit, Wire, Fittings, Connections) rigation edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) dewalk Pavers (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" elincher Sidewalk 4" einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)	9 4 180 1,490	EA EA	\$650.00	\$5,850.00		
treet Trees ew Planter anter Resurface tructural Soil (Tree Planting) atio Rail inderground Electrical Line (Conduit, Wire, Fittings, Connections) rigation edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) dewalk Pavers (Including Base) concrete Sidewalk 4" (Including Base) concrete Sidewalk 4" (Including Base) concrete Sidewalk 4" (encluding Base) concrete Sidewalk 4" encluding Base) encrete Base for Pavers (Penniman Shared Street)	9 4 180 1,490	EA EA	\$650.00	\$5,850.00		
reet Trees ew Planter anter Resurface ructural Soil (Tree Planting) stio Rail inderground Electrical Line (Conduit, Wire, Fittings, Connections) rigation edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) dewalk Pavers (Including Base) soncrete Sidewalk 4" (Including Base) soncrete Sidewalk 4" (Including Base) soncrete Concrete (Crosswalk Band) surb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) soncrete Base for Pavers (Penniman Shared Street)	180 1,490	EA EA		. ,		
ew Planter lanter Resurface tructural Soil (Tree Planting) atio Rail nderground Electrical Line (Conduit, Wire, Fittings, Connections) rigation edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) dewalk Pavers (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)	180 1,490	EA EA		. ,	Based upon 30' spacing between trees	
lanter Resurface tructural Soil (Tree Planting) atio Rail Inderground Electrical Line (Conduit, Wire, Fittings, Connections) rigation edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) idewalk Pavers (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" elincluding Base) oncrete Sidewalk 4" einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)	1,490	EA	. ,	\$48,000.00	All new designed seat wall planter	
tructural Soil (Tree Planting) atio Rail Inderground Electrical Line (Conduit, Wire, Fittings, Connections) rigation edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) idewalk Pavers (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)	1,490				\$50/LFT cap and \$30/sf, plus added \$2,500	
atio Rail Inderground Electrical Line (Conduit, Wire, Fittings, Connections) rrigation edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) idewalk Pavers (Including Base) concrete Sidewalk 4" (Including Base) concrete Sidewalk 4" einforced Concrete (Crosswalk Band) turb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) crick (Vehicular Drive Lanes and Bike Lanes) concrete Base for Pavers (Penniman Shared Street)	1,490	CVD	\$9,000.00	\$0.00	for materiality contingency	
Inderground Electrical Line (Conduit, Wire, Fittings, Connections) rigation edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) idewalk Pavers (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)		CYD	\$125.00	\$22,500.00	20 CYD/Tree	
Inderground Electrical Line (Conduit, Wire, Fittings, Connections) rigation edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) idewalk Pavers (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)		LFT	\$80.00	\$0.00	by business owner	
rigation edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) idewalk Pavers (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)		LFT	\$10.00	\$14,900.00	•	
edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles) dewalk Pavers (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)	745	LFT	\$2.00	\$1,490.00		
dewalk Pavers (Including Base) oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)		EA	\$2,500.00	\$0.00		
oncrete Sidewalk 4" (Including Base) oncrete Sidewalk 4" einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)	4,768	SFT	\$20.00	\$95,360.00		
oncrete Sidewalk 4" einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)	7,152	SFT	\$10.00	\$71,520.00		
einforced Concrete (Crosswalk Band) urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)	100	SFT	\$10.00	\$1,000.00		
urb Ramp with Truncated Domes ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)	100	LFT	\$35.00	\$0.00		
ermeable Pavers (Vehicular Parking) rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)	4	EA	\$1,500.00	\$6,000.00		
rick (Vehicular Drive Lanes and Bike Lanes) oncrete Base for Pavers (Penniman Shared Street)		SFT	\$15.00	\$0.00		
oncrete Base for Pavers (Penniman Shared Street)		SFT	\$20.00	\$0.00		
		SYD	\$75.00	\$0.00		
ollara (verilicular, Netractabe)(Ferilimian Sharea Street)		EA	\$6,000.00	\$0.00		
ollard (Parkingr, Retractabe)(Penniman Shared Street)		EA	\$3,000.00	\$0.00		
				\$0.00		
oadway Reconstruction with 8" Aggregate Base and 7" HMA einforced Concrete (Band)		LS LFT	\$0.00	\$0.00		
emorced Concrete (Band) Itersection Mast Arms	1	EA	\$30.00 \$300,000.00	\$0.00 \$300,000.00		At Wing Street Intersection
					Now Signage and Dayoment Markings	At wing street intersection
Nidblock Crossing	1	EA EA	\$6,500.00		New Signage and Pavement Markings	
tility Box Beautification (Art/Wayfinding) ew Hardscape Construction			\$3,000.00	\$0.00	Consciple, handsones and humanaute sta	
•	1	LS	¢3,000,00		Specialty hardscape- curb bumpouts, etc. Half cost of short term	
te Furnishings	1	LS	\$3,000.00		nail cost of short term	
rinking Fountain		EA LFT	\$5,000.00	\$0.00 \$0.00		
ury Overhead Utility Lines		LFI	\$200.00	·	New signage for Back in Parking and Shared	
raffic Signage		EA	\$500.00		Street	
/ayfinding Signage	2	EA	\$1,500.00	\$3,000.00		
ainted Murals	-	SFT	\$35.00	\$0.00		
iateway Sculpture	1	EA	\$17,500.00	\$17,500.00		At Wing Street Intersection
ateway Site Improvements	1	EA	\$15,000.00	\$17,500.00		
pgrade Street Light Fixture to LED	17	EA	\$2,000.00	\$33,111.11		
ro			¥2,000.00	, 30, 111.11		
			Construction Sub Total	\$821,775.61		
			Contingencies (20%)	\$164,355.12		
	Design ar	nd Construct	tion Engineering (Estimated 20%)	\$164,355.12		
			Long Term Estimated Total:	\$1,150,485.86		



Plymouth DDA Corridor Improvements
Penniman Ave. Corridor Schematic Design Cost Estimate Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Short Term Annual Maintenance Tasks						
tem	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Note
Maintenance and Traffic Control	700	LFT	\$15.00	\$10,500.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year	
5 .					3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	392	SFT	\$3.00	\$1,176.00	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	28	LFT	\$15.00	\$420.00	Maintenance and Repairs	
Miscellaneous Utility Work	700	LFT	\$5.00	\$3,500.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
Tree Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00		1 Tree/Corridor/Year	
Tree Trimming	26	EA	\$200.00	\$5,200.00	\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00	\$1,000.00	\$1000/Corridor/Year	
Landscape Restoration	700	LFT	\$2.00	\$1,400.00	\$2/LFT/COR - Maintenance and Repairs	
rrigation Repair	700	LFT	\$2.00	\$1,400.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	28	LFT	\$30.00	\$840.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	392	SFT	\$10.00	\$3,920.00	Maintenance and Repairs	
					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	84	SFT	\$20.00	\$1,680.00	Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00	\$1,500.00	1 Crosswalk/Corridor/Year	
Pavement Markings	700	LFT	\$2.00	\$1,400.00	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00	\$500.00	\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00	\$2,750.00	\$2750/Corridor/Year	
			Construction Sub Total	\$52,236.00		
			Contingencies (20%)	\$10,447.20		
	Design a	nd Constru	ction Engineering (Estimated 20%)	\$10,447.20		
	z congri u	005.1 41		410, 20		
			Short Term Estimated Total:	\$73,130.40		

Canital Improvement Projects						
Capital Improvement Projects	0		11.22 8.2.1	Takal Casa	General Note	Country Country No.
Item	Quantity	Unit	Unit Price	Total Cost		Corridor Specific Note
Mobilization (10% max)	1	LS	\$77,680.00	. ,	10% of Construction Sub-Total	
Sedimentation and Erosion Control Measures	700	LFT	\$10.00		\$10/LFT/Corridor	
Maintenance and Traffic Control	700	LFT	\$20.00	\$14,000.00	\$20/LFT/Corridor	
Demolition						
Remove Street Trees	7	EA	\$400.00	\$2,600.00	Roughly 1/4 of Short Term	
Remove or Remove and Replace Site Furnishings	1	LS	\$1,000.00	\$1,000.00		
Remove Hardscape (Sidewalk, Road, Paving Etc.)	11200	SFT	\$5.00	\$56,000.00		
Remove Vehicular Concrete		SFT	\$3.00	\$0.00		
Remove Asphalt		SFT	\$2.00	\$0.00		
Remove Pedestrian Hardscape		SFT	\$3.00	\$0.00		
Remove Curb and Gutter		LFT	\$15.00	\$0.00		
Remove and Replace Light Pole		EA	\$2,500.00	\$0.00		
Remove and Relocate Light Pole		EA	\$2,000.00	\$0.00		
Remove Planter		EA	\$4,000.00	\$0.00		
Miscellaneous Utility Relocation	700	LFT	\$25.00	\$17,500.00	\$25/LFT/Corridor	
New Construction						
Site Grading	1	LS	\$5,000.00	\$5,000.00	Ť	
Street Trees	10	EA	\$650.00		Based upon 30' spacing between trees	
New Planter	6	EA	\$12,000.00		All new designed seat wall planter	
					\$50/LFT cap and \$30/sf, plus added \$2,500	
Planter Resurface	7	EA	\$9,000.00	\$63,000.00	for materiality contingency	
Structural Soil (Tree Planting)	200	CYD	\$125.00		20 CYD/Tree	
Patio Rail		LFT	\$80.00	\$0.00	by business owner	
Underground Electrical Line (Conduit, Wire, Fittings, Connections)	1,500	LFT	\$10.00	\$15,000.00	,	
rrigation	700	LFT	\$2.00	\$1,400.00		
Pedestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)		EA	\$2,500.00	\$0.00		
Sidewalk Pavers (Including Base)	4,480	SFT	\$20.00	\$89,600.00		
Concrete Sidewalk 4" (Including Base)	6,720	SFT	\$10.00	\$67,200.00		
Concrete Sidewalk 4"	200	SFT	\$10.00	\$2,000.00		
Reinforced Concrete (Crosswalk Band)	200	LFT	\$35.00	\$0.00		
Curb Ramp with Truncated Domes	2	EA	\$1,500.00	\$3,000.00		
Permeable Pavers (Vehicular Parking)	_	SFT	\$1,500.00	\$0.00		
Brick (Vehicular Drive Lanes and Bike Lanes)		SFT	\$20.00	\$0.00		
Concrete Base for Pavers (Penniman Shared Street)		SYD	\$75.00	\$0.00		
Bollard (Vehicular, Retractabe)(Penniman Shared Street)		EA	\$6,000.00	\$0.00		
Bollard (Parkingr, Retractabe)(Penniman Shared Street)		EA	\$3,000.00	\$0.00		
Roadway Reconstruction with 8" Aggregate Base and 7" HMA		LS	\$0.00	\$0.00		
Reinforced Concrete (Band)		LFT	\$30.00	\$0.00		
Intersection Mast Arms	1	EA		\$300,000.00		At Harroy Street Intersection
Midblock Crossing	1	EA	\$300,000.00 \$6,500.00		New Signage and Pavement Markings	At Harvey Street Intersection
	2				ivew signage and Pavernent Iviarkings	
Utility Box Beautification (Art/Wayfinding) New Hardscape Construction	2	EA LS	\$3,000.00	\$6,000.00	Specialty hardscape, such humasuts at-	
•	1		\$10,000.00		Specialty hardscape- curb bumpouts, etc. Half cost of short term	
Site Furnishings	1	LS	\$3,000.00		maii cost di snort term	
Drinking Fountain	2	EA	\$5,000.00	\$10,000.00		
Bury Overhead Utility Lines		LFT	\$200.00	\$0.00		
Total Conservation	=		Å=00	d	New signage for Back in Parking and Shared	
Traffic Signage	8	EA	\$500.00	\$4,000.00		
Wayfinding Signage	3	EA	\$1,500.00	\$4,500.00		ADMINISTRAÇÃO DE LOS COMOS DE LA COMOS DE
Painted Murals	750	SFT	\$35.00	\$26,250.00		NW Wall of Doll House Toy Cottage
Gateway Sculpture	1	EA	\$17,500.00	\$17,500.00		At Harvey Street Intersection
Gateway Site Improvements	1	EA	\$15,000.00	\$15,000.00		
Jpgrade Street Light Fixture to LED	16	EA	\$2,000.00	\$31,111.11		
			Construction Sub Total	\$952,841.11		
			Contingencies (20%)	\$190,568.22		
	Design a	nd Constru	ction Engineering (Estimated 20%)	\$190,568.22		
			Long Term Estimated Total:	\$1,333,977.56		
			<u> </u>	. , .,.	†	



Plymouth DDA Corridor Improvements Penniman Shared Street Schematic Design Cost Estimate

Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Approximate Corridor Length = 445

Short Term Annual Maintenance Tasks	a 1				Consuel Note	0 11 0 16 11
Item	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Note
Maintenance and Traffic Control	445	LFT	\$15.00	\$6,675.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year	
					3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	249.2	SFT	\$3.00	\$747.60	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	17.8	LFT	\$15.00	\$267.00	Maintenance and Repairs	
Miscellaneous Utility Work	445	LFT	\$5.00	\$2,225.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
Tree Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00	\$650.00	1 Tree/Corridor/Year	
Tree Trimming	5	EA	\$200.00	\$1,000.00	\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00	\$1,000.00	\$1000/Corridor/Year	
Landscape Restoration	445	LFT	\$2.00	\$890.00	\$2/LFT/COR - Maintenance and Repairs	
Irrigation Repair	445	LFT	\$2.00	\$890.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	18	LFT	\$30.00	\$534.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	249	SFT	\$10.00	\$2,492.00	Maintenance and Repairs	
					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	53	SFT	\$20.00	\$1,068.00	Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00	\$1,500.00	1 Crosswalk/Corridor/Year	
Pavement Markings	445	LFT	\$2.00	\$890.00	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00	\$500.00	\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00	\$2,750.00	\$2750/Corridor/Year	
			Construction Sub Total	\$38,478.60		
			Contingencies (20%)	\$7,695.72		
	Design a	nd Construct	ion Engineering (Estimated 20%)	\$7,695.72		
			Short Term Estimated Total:	\$53,870.04		

Capital Improvement Projects						
tem	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Not
Nobilization (10% max)	1	LS	\$147,601.40		10% of Construction Sub-Total	
edimentation and Erosion Control Measures	445	LFT	\$10.00		\$10/LFT/Corridor	
Naintenance and Traffic Control	445	LFT	\$20.00	\$8,900.00	\$20/LFT/Corridor	
Demolition						
emove Street Trees	1	EA	\$400.00	\$400.00	Roughly 1/4 of Short Term	
emove or Remove and Replace Site Furnishings	1	LS	\$6,000.00	\$6,000.00		
emove Hardscape (Sidewalk, Road, Paving Etc.)		SFT	\$5.00	\$0.00		
emove Vehicular Concrete	5163	SFT	\$3.00	\$15,489.00		
emove Asphalt	15245	SFT	\$2.00	\$30,490.00		
emove Pedestrian Hardscape	6590	SFT	\$3.00	\$19,770.00		
emove Curb and Gutter	1010	LFT	\$15.00	\$15,150.00		
emove and Replace Light Pole	6	EA	\$2,500.00	\$15,000.00		
emove and Relocate Light Pole		EA	\$2,000.00	\$0.00		
emove Planter	2	EA	\$4,000.00	\$8,000.00		
liscellaneous Utility Relocation	445	LFT	\$25.00	\$11,125.00	\$25/LFT/Corridor	
ew Construction						
te Grading	1	LS	\$8,000.00	\$8,000.00		
treet Trees	1	EA	\$650.00		Based upon 30' spacing between trees	
ew Planter	4	EA	\$12,000.00		All new designed seat wall planter	
			¥==,200:00	+,	\$50/LFT cap and \$30/sf, plus added \$2,500	
anter Resurface	4	EA	\$9,000.00	\$36,000.00	for materiality contingency	
ructural Soil (Tree Planting)	20	CYD	\$125.00		20 CYD/Tree	
atio Rail		LFT	\$80.00		by business owner	
nderground Electrical Line (Conduit, Wire, Fittings, Connections)		LFT	\$10.00	\$0.00	, , , , , , , , , , , , , , , , , , , ,	
rigation	445	LFT	\$2.00	\$890.00		
edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)		EA	\$2,500.00	\$0.00		
dewalk Pavers (Including Base)		SFT	\$20.00	\$0.00		
oncrete Sidewalk 4" (Including Base)		SFT	\$10.00	\$0.00		
oncrete Sidewalk 4"	6,590	SFT	\$10.00	\$65,900.00		
einforced Concrete (Crosswalk Band)	80	LFT	\$35.00	\$2,800.00		
urb Ramp with Truncated Domes		EA	\$1,500.00	\$0.00		
ermeable Pavers (Vehicular Parking)		SFT	\$15.00	\$0.00		
rick (Vehicular Drive Lanes and Bike Lanes)	18,200	SFT	\$20.00	\$364,000.00		
oncrete Base for Pavers (Penniman Shared Street)	6,067	SYD	\$75.00	\$455,000.00		
ollard (Vehicular, Retractabe)(Penniman Shared Street)	34	EA	\$6,000.00	\$204,000.00		
ollard (Parkingr, Retractabe)(Penniman Shared Street)	46	EA	\$3,000.00	\$138,000.00		
oadway Reconstruction with 8" Aggregate Base and 7" HMA		LS	\$0.00	\$0.00		
einforced Concrete (Band)	250	LFT	\$30.00	\$7,500.00		
tersection Mast Arms		EA	\$300,000.00	\$0.00		
idblock Crossing		EA	\$6,500.00	\$0.00	New Signage and Pavement Markings	
tility Box Beautification (Art/Wayfinding)		EA	\$3,000.00	\$0.00		
ew Hardscape Construction		LS		\$0.00	Specialty hardscape- curb bumpouts, etc.	
te Furnishings	1	LS	\$3,000.00		Half cost of short term	
rinking Fountain	1	EA	\$5,000.00	\$5,000.00		
ury Overhead Utility Lines		LFT	\$200.00	\$0.00	New signage for Back in Parking and Shared	
raffic Signage	8	EA	\$500.00	\$4,000.00		
/ayfinding Signage	4	EA	\$1,500.00	\$6,000.00		
ainted Murals	7	SFT	\$35.00	\$0.00		
ateway Sculpture		EA	\$17,500.00	\$0.00		
ateway Site Improvements		EA	\$15,000.00	\$0.00		
pgrade Street Light Fixture to LED	10	EA	\$2,000.00	\$19,777.78		
			Construction Sub Total	\$1,653,393.18		
			Contingencies (20%)	\$330,678.64		
	Design a	nd Construction	on Engineering (Estimated 20%)	\$330,678.64		
			Lang Town Estimated Tatal	\$2,314,750.45		
			Long Term Estimated Total:	\$2,314,730.43		



Plymouth DDA Corridor Improvements Union St. Corridor Schematic Design Cost Estimate Updated Sep. 10th, 2020

The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Approximate Corridor Length = 845

Short Term Annual Maintenance Tasks						
Item	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific Note
Maintenance and Traffic Control	845	LFT	\$15.00	\$12,675.00	\$15/LFT/Corridor	
Demolition						
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year	
3 ,					3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	473.2	SFT	\$3.00	\$1,419.60	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	33.8	LFT	\$15.00	\$507.00	Maintenance and Repairs	
Miscellaneous Utility Work	845	LFT	\$5.00	\$4,225.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
Tree Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00	\$650.00	1 Tree/Corridor/Year	
Tree Trimming	18	EA	\$200.00	\$3,600.00	\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00	\$1,000.00	\$1000/Corridor/Year	
Landscape Restoration	845	LFT	\$2.00	\$1,690.00	\$2/LFT/COR - Maintenance and Repairs	
Irrigation Repair	845	LFT	\$2.00	\$1,690.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	34	LFT	\$30.00	\$1,014.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	473	SFT	\$10.00	\$4,732.00	Maintenance and Repairs	
. , , ,					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	101	SFT	\$20.00	\$2,028.00	Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00	\$1,500.00	1 Crosswalk/Corridor/Year	
Pavement Markings	845	LFT	\$2.00	\$1,690.00	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00	. ,	\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00		\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00		\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00	\$2,750.00	\$2750/Corridor/Year	
			Construction Sub Total	\$56,070.60		
			Contingencies (20%)	\$11,214.12		
	Design a	nd Construc	tion Engineering (Estimated 20%)	\$11,214.12		
			Short Term Estimated Total:	\$78,498.84		

Capital Improvement Projects						
	Quantity	Unit	Unit Price	Total Cost	General Note	Carridar Spacific Nata
tem Mobilization (100/ may)	Quantity 1	Unit LS	Unit Price \$37,752.50	Total Cost	10% of Construction Sub-Total	Corridor Specific Note
Mobilization (10% max) Sedimentation and Erosion Control Measures		LS			\$10/LFT/Corridor	
Maintenance and Traffic Control	845 845	LFT	\$10.00 \$20.00		\$20/LFT/Corridor	
	045	LFI	\$20.00	\$10,900.00	\$20/El 1/Collidol	
Demolition						
Remove Street Trees	13	EA	\$400.00		Roughly 1/4 of Short Term	
Remove or Remove and Replace Site Furnishings	1	LS	\$2,000.00	\$2,000.00		
Remove Hardscape (Sidewalk, Road, Paving Etc.)		SFT	\$5.00	\$0.00		
temove Vehicular Concrete		SFT	\$3.00	\$0.00		
Remove Asphalt		SFT	\$2.00	\$0.00		
Remove Pedestrian Hardscape		SFT	\$3.00	\$0.00		
Remove Curb and Gutter		LFT	\$15.00	\$0.00		
Remove and Replace Light Pole		EA	\$2,500.00	\$0.00		
Remove and Relocate Light Pole		EA	\$2,000.00	\$0.00		
Remove Planter		EA	\$4,000.00	\$0.00		
Miscellaneous Utility Relocation	845	LFT	\$25.00	\$21,125.00	\$25/LFT/Corridor	
New Construction						
ite Grading	1	LS	\$8,000.00	\$8,000.00		
Street Trees	45	EA	\$650.00		Based upon 30' spacing between trees	
New Planter		EA	\$12,000.00		All new designed seat wall planter	
					\$50/LFT cap and \$30/sf, plus added \$2,500	
Planter Resurface		EA	\$9,000.00	\$0.00	for materiality contingency	
Structural Soil (Tree Planting)	900	CYD	\$125.00		20 CYD/Tree	
Patio Rail		LFT	\$80.00		by business owner	
Inderground Electrical Line (Conduit, Wire, Fittings, Connections)	1	LFT	\$10.00	\$10.00	,	
rrigation	845	LFT	\$2.00	\$1,690.00		
Pedestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)		EA	\$2,500.00	\$0.00		
Sidewalk Pavers (Including Base)		SFT	\$20.00	\$0.00		
Concrete Sidewalk 4" (Including Base)		SFT	\$10.00	\$0.00		
Concrete Sidewalk 4"	200	SFT	\$10.00	\$2,000.00		
Reinforced Concrete (Crosswalk Band)	200	LFT	\$35.00	\$0.00		
Curb Ramp with Truncated Domes	6	EA	\$1,500.00	\$9,000.00		
Permeable Pavers (Vehicular Parking)	· ·	SFT	\$15.00	\$0.00		
Brick (Vehicular Drive Lanes and Bike Lanes)		SFT	\$20.00	\$0.00		
Concrete Base for Pavers (Penniman Shared Street)		SYD	\$75.00	\$0.00		
Bollard (Vehicular, Retractabe)(Penniman Shared Street)		EA	\$6,000.00	\$0.00		
Bollard (Parkingr, Retractabe)(Penniman Shared Street)		EA	\$3,000.00	\$0.00		
Roadway Reconstruction with 8" Aggregate Base and 7" HMA		LS	\$0.00	\$0.00		
Reinforced Concrete (Band)		LFT	\$30.00	\$0.00		
ntersection Mast Arms		EA	\$300,000.00	\$0.00		
	1				New Signage and Pavement Markings	
Aidblock Crossing	1	EA EA	\$6,500.00		INCAN DIRTIARE AND FAVEINETT MIGIKITIRS	
Jtility Box Beautification (Art/Wayfinding) New Hardscape Construction	4	LS	\$3,000.00	\$12,000.00	Specialty hardscape, curb humpouts, cts	
•	4		62,000,00		Specialty hardscape- curb bumpouts, etc. Half cost of short term	
ite Furnishings	1	LS	\$3,000.00			
Orinking Fountain	700	EA	\$5,000.00	\$0.00		
Bury Overhead Utility Lines	700	LFT	\$200.00	\$140,000.00	New signage for Back in Parking and Shared	
Traffic Signage		EA	\$500.00	\$0.00	Street	
Nayfinding Signage	2	EA	\$1,500.00	\$3,000.00	5551	
Painted Murals	2	SFT	\$1,500.00 \$35.00			
			\$35.00 \$17,500.00	\$0.00 \$0.00		
Gateway Sculpture		EA EA				
ateway Site Improvements pgrade Street Light Fixture to LED	19	EA	\$15,000.00 \$2,000.00	\$0.00 \$37,555.56		
			Construction Sub Total	\$455,833.06		
			Contingencies (20%)	\$91,166.61		
	Design a	nd Construc	tion Engineering (Estimated 20%)	\$91,166.61		
			Long Term Estimated Total:	\$638,166.28		
			Long Term Latimated Total.	ψοσο, 100.20		



Plymouth DDA Corridor Improvements Wing St. Corridor Schematic Design Cost Estimate

Updated Sep. 10th, 2020

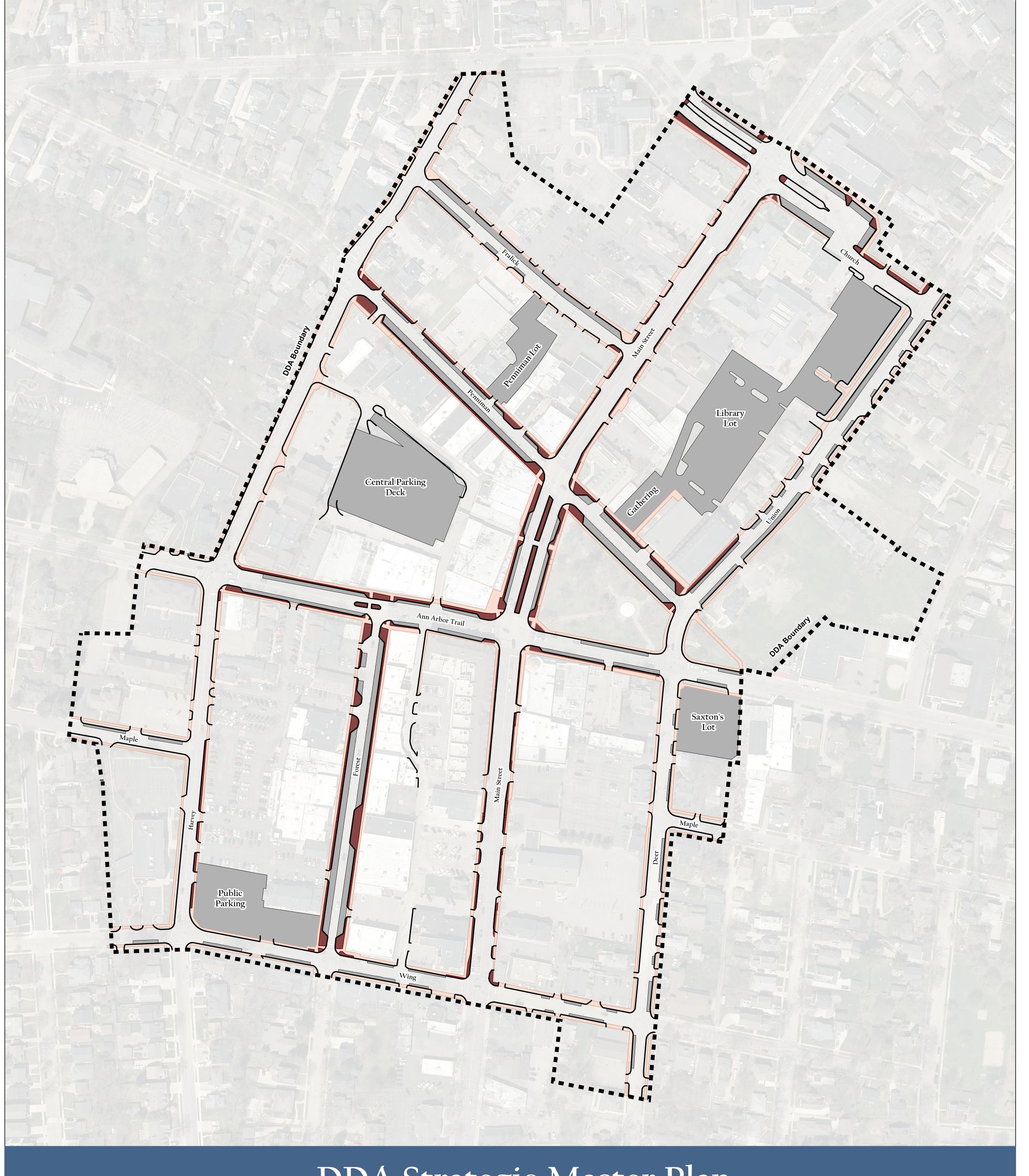
The project estimate is Wade Trim's opinion of probable cost based upon the available information and is based upon the improvements in the Conceptual Site Plan dated September 2020.

Approximate Corridor Length = 1205

Short Term Annual Maintenance Tasks						
Item	Quantity	Unit	Unit Price	Total Cost		Corridor Specific Note
Maintenance and Traffic Control	1205	LFT	\$15.00	\$18,075.00	\$15/LFT/Corridor	
Demolition					1	
Remove Street Trees	1	EA	\$400.00	\$400.00	Trees Rated Poor to Fair condition	
Remove Site Furnishings/ Amenities	1	AL	\$1,500.00	\$1,500.00	\$1500/Corridor/Year	
					3.5% of Sidewalk/Corridor/ Year -	
Remove Concrete Sidewalk	674.8	SFT	\$3.00	\$2,024.40	Maintenance and Repairs	
					2% of Curb and Gutter/Corridor/Year -	
Remove Curb and Gutter	48.2	LFT	\$15.00	\$723.00	Maintenance and Repairs	
Miscellaneous Utility Work	1205	LFT	\$5.00	\$6,025.00	\$5/LFT/corridor - Maintenance and Repairs	
New Construction						
Tree Grate (Replacement)	2	EA	\$1,500.00	\$3,000.00	2 Grates/Corridor/Year	
Street Tree (Replacement)	1	EA	\$650.00	\$650.00	1 Tree/Corridor/Year	
Tree Trimming	6	EA	\$200.00	\$1,200.00	\$200/Tree/Year	
Planter box Maintenance	1	AL	\$1,000.00	\$1,000.00	\$1000/Corridor/Year	
Landscape Restoration	1,205	LFT	\$2.00	\$2,410.00	\$2/LFT/COR - Maintenance and Repairs	
Irrigation Repair	1,205	LFT	\$2.00	\$2,410.00	\$2/LFT/COR - Maintenance and Repairs	
Bike Rack (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Bike Rack/Corridor/Year	
Bench (Replacement)	1	EA	\$2,500.00	\$2,500.00	1 Bench/Corridor/Year	
Litter Bin (Replacement)	1	EA	\$1,500.00	\$1,500.00	1 Litter Bin/Corridor/Year	
					2% of Curb and Gutter/Corridor/Year -	
Standard Curb and Gutter	48	LFT	\$30.00	\$1,446.00	Maintenance and Repairs	
					3.5% of Sidewalk/Corridor/ Year -	
Concrete Sidewalk 4" (Replacement)	675	SFT	\$10.00	\$6,748.00	Maintenance and Repairs	
					1.5% of Sidewalk/Corridor/ Year -	
Sidewalk Paver Repair	145	SFT	\$20.00	\$2,892.00	Maintenance and Repairs	
Crosswalk Re-Striping	1	AL	\$1,500.00	\$1,500.00	1 Crosswalk/Corridor/Year	
Pavement Markings	1205	LFT	\$2.00	\$2,410.00	\$2/LFT/COR - Maintenance and Repairs	
Bumper Block Replacement	1	AL	\$500.00	\$500.00	\$500/Corridor/Year	
Sign Maintenance	1	AL	\$2,000.00	\$2,000.00	\$2000/Corridor/Year	
Reseal and Restripe Parking lots	1	AL	\$2,000.00		\$2000/Corridor/Year	
Painting Light poles	1	AL	\$2,750.00		\$2750/Corridor/Year	
			Construction Sub Total	\$67,163.40		
			Contingencies (20%)	\$13,432.68		
	Design a	and Construct	ion Engineering (Estimated 20%)	\$13,432.68		
			Short Term Estimated Total:	\$94.028.76		

Capital Improvement Projects						
tem	Quantity	Unit	Unit Price	Total Cost	General Note	Corridor Specific No
Nobilization (10% max)	1	LS	\$34,358.50	\$34,358.50	10% of Construction Sub-Total	•
edimentation and Erosion Control Measures	1205	LFT	\$10.00	\$12,050.00	\$10/LFT/Corridor	
Maintenance and Traffic Control	1205	LFT	\$20.00	\$24,100.00	\$20/LFT/Corridor	
Demolition						
emove Street Trees	4	EA	\$400.00	\$1,600,00	Roughly 1/4 of Short Term	
emove or Remove and Replace Site Furnishings	1	LS	\$1,500.00	\$1,500.00	neaginy 17 to onote term	
emove Hardscape (Sidewalk, Road, Paving Etc.)	-	SFT	\$5.00	\$0.00		
emove Vehicular Concrete		SFT	\$3.00	\$0.00		
emove Asphalt		SFT	\$2.00	\$0.00		
emove Pedestrian Hardscape		SFT	\$3.00	\$0.00		
emove Curb and Gutter		LFT	\$15.00	\$0.00		
emove and Replace Light Pole		EA	\$2,500.00	\$0.00		
emove and Relocate Light Pole	2	EA	\$2,000.00	\$4,000.00		
emove Planter	0	EA	\$4,000.00	\$0.00		
1iscellaneous Utility Relocation	1205	LFT	\$25.00		\$25/LFT/Corridor	
ew Construction	4	ıc	¢0 F00 00	¢0.500.00		
ite Grading	1	LS	\$8,500.00	\$8,500.00	Raced upon 20' chacing between trees	
treet Trees lew Planter	12	EA EA	\$650.00 \$12,000.00		Based upon 30' spacing between trees All new designed seat wall planter	
ew Planter		EA	\$12,000.00	·	\$50/LFT cap and \$30/sf, plus added \$2,500	
lanta Description		5 4	¢0.000.00			
lanter Resurface	240	EA	\$9,000.00		for materiality contingency	
tructural Soil (Tree Planting)	240	CYD	\$125.00		20 CYD/Tree	
atio Rail	0	LFT	\$80.00	· ·	by business owner	
nderground Electrical Line (Conduit, Wire, Fittings, Connections)	0	LFT	\$10.00	\$0.00		
rigation	1,205	LFT	\$2.00	\$2,410.00		
edestrian Pole Lighting (Replace Fixtures-Install Salvaged Poles)		EA	\$2,500.00	\$0.00		
dewalk Pavers (Including Base)		SFT	\$20.00	\$0.00		
oncrete Sidewalk 4" (Including Base)	200	SFT	\$10.00	\$0.00		
oncrete Sidewalk 4"	300	SFT	\$10.00	\$3,000.00		
einforced Concrete (Crosswalk Band)	•	LFT	\$35.00	\$0.00		
urb Ramp with Truncated Domes	9	EA	\$1,500.00	\$13,500.00		
ermeable Pavers (Vehicular Parking)		SFT	\$15.00	\$0.00		
rick (Vehicular Drive Lanes and Bike Lanes)		SFT	\$20.00	\$0.00		
oncrete Base for Pavers (Penniman Shared Street)		SYD	\$75.00	\$0.00		
ollard (Vehicular, Retractabe)(Penniman Shared Street)		EA	\$6,000.00	\$0.00		
ollard (Parkingr, Retractabe)(Penniman Shared Street)		EA	\$3,000.00	\$0.00		
oadway Reconstruction with 8" Aggregate Base and 7" HMA		LS	\$0.00	\$0.00		
einforced Concrete (Band)		LFT	\$30.00	\$0.00		
ntersection Mast Arms		EA	\$300,000.00	\$0.00	Now Signage and Devices and A. 1.	
1idblock Crossing	_	EA	\$6,500.00		New Signage and Pavement Markings	
tility Box Beautification (Art/Wayfinding)	4	EA	\$3,000.00	\$12,000.00	Constalle bandones a 1.1	
lew Hardscape Construction	4	LS	42.000.55	·	Specialty hardscape- curb bumpouts, etc.	
te Furnishings	1	LS	\$3,000.00		Half cost of short term	
rinking Fountain	050	EA	\$5,000.00	\$0.00		
ury Overhead Utility Lines	950	LFT	\$200.00	\$190,000.00	New signage for Back in Parking and Shared	
raffic Signage		EA	\$500.00		Street	
/ayfinding Signage	3	EA	\$1,500.00	\$4,500.00		
ainted Murals		SFT	\$35.00	\$0.00		
ateway Sculpture	1	EA	\$17,500.00	\$17,500.00		At Harvey Intersection
ateway Site Improvements	1	EA	\$15,000.00	\$15,000.00		
pgrade Street Light Fixture to LED	27	EA	\$2,000.00	\$53,555.56		
			Construction Sub Total	\$468,499.06		
			Contingencies (20%)	\$93,699.81		
	Design a	nd Construct	ion Engineering (Estimated 20%)	\$93,699.81		
			Long Term Estimated Total:	\$655,898.68		

Appendix D



DDA Strategic Master Plan Existing Sidewalks, Street Curb, and Public Parking



Brickpaver

— Street Curb

Concrete

DDA Boundary

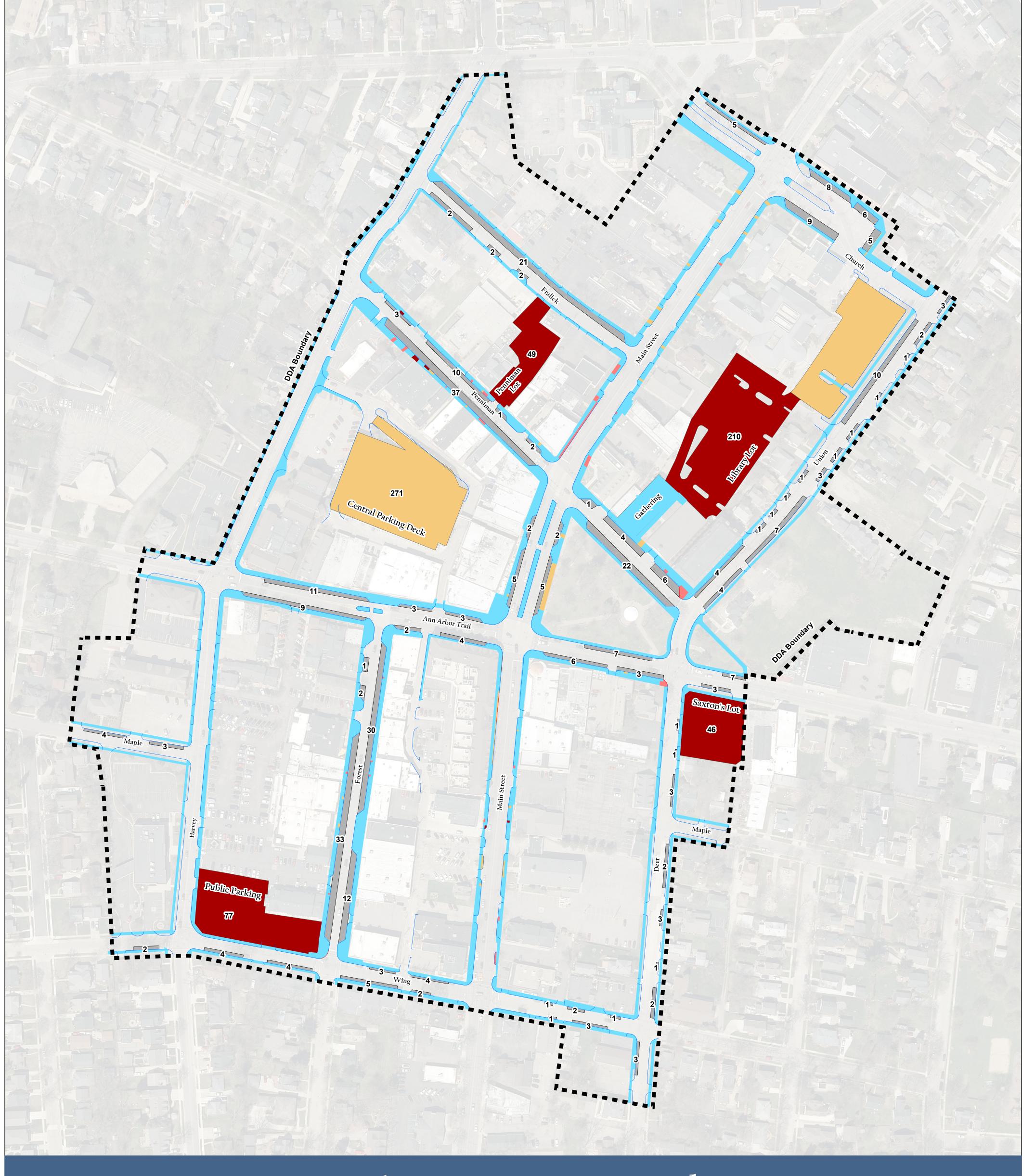
Public Parking



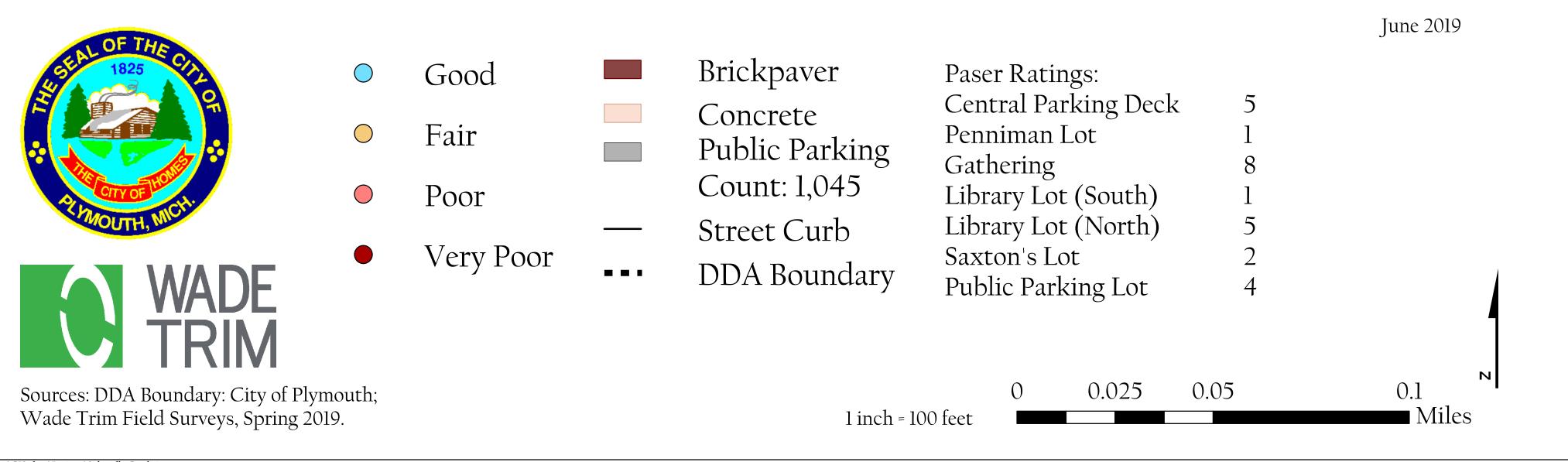
Sources: DDA Boundary: City of Plymouth; Wade Trim Field Surveys, Spring 2019.

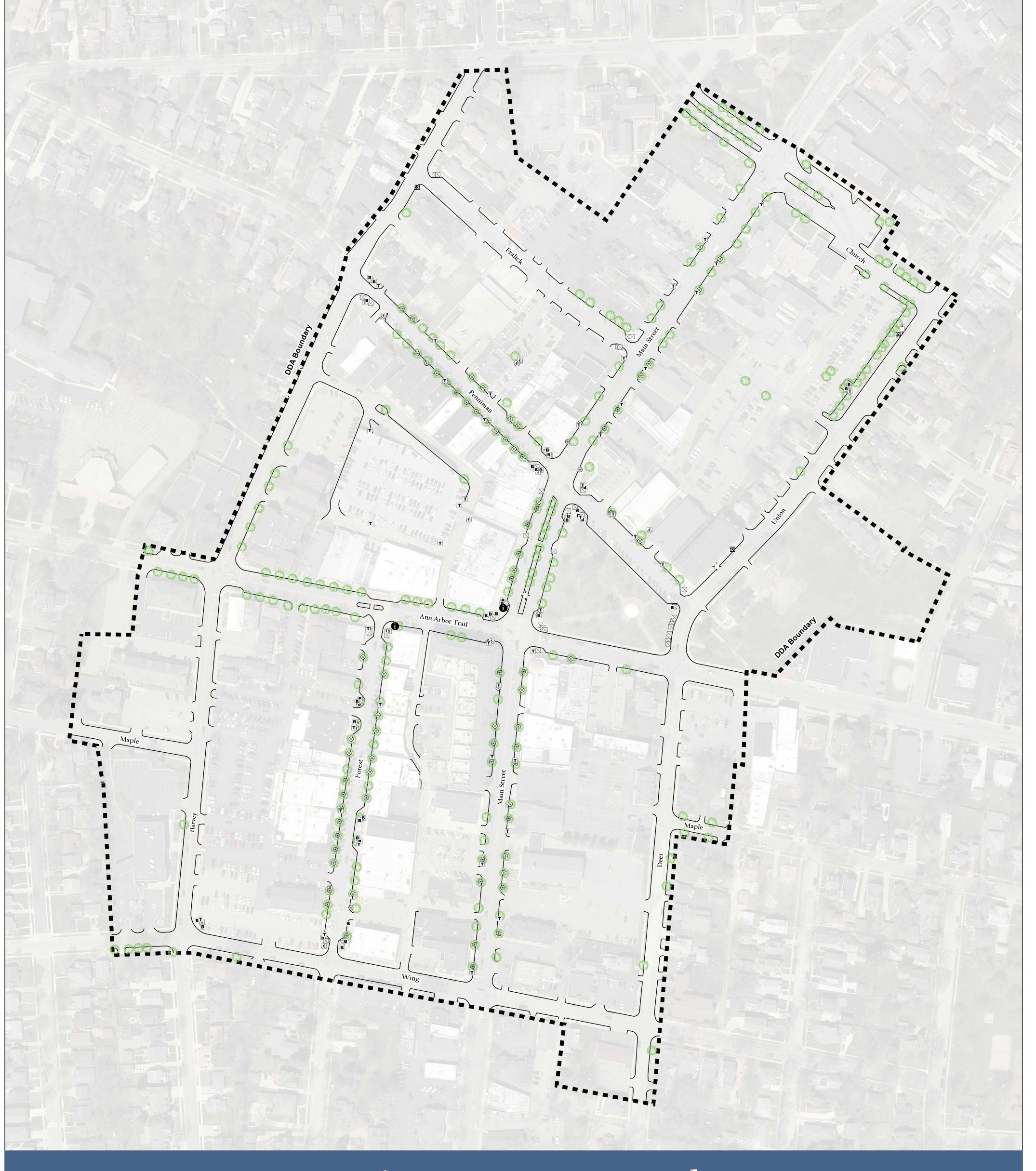
0.025 0.05 0.1 1 inch = 100 feet

June 2019



DDA Strategic Master Plan Condition of Sidewalks, Street Curb, and Public Parking





DDA Strategic Master Plan Streetscape Elements Location Map



Bench

Bike Rack

Drinking Fountain

Information Sign

+ Other

Planter

Recycling Receptacle

Trash Receptacle

* Tree Grate

CommunicationsUtility Cabinet

June 2019

Tree

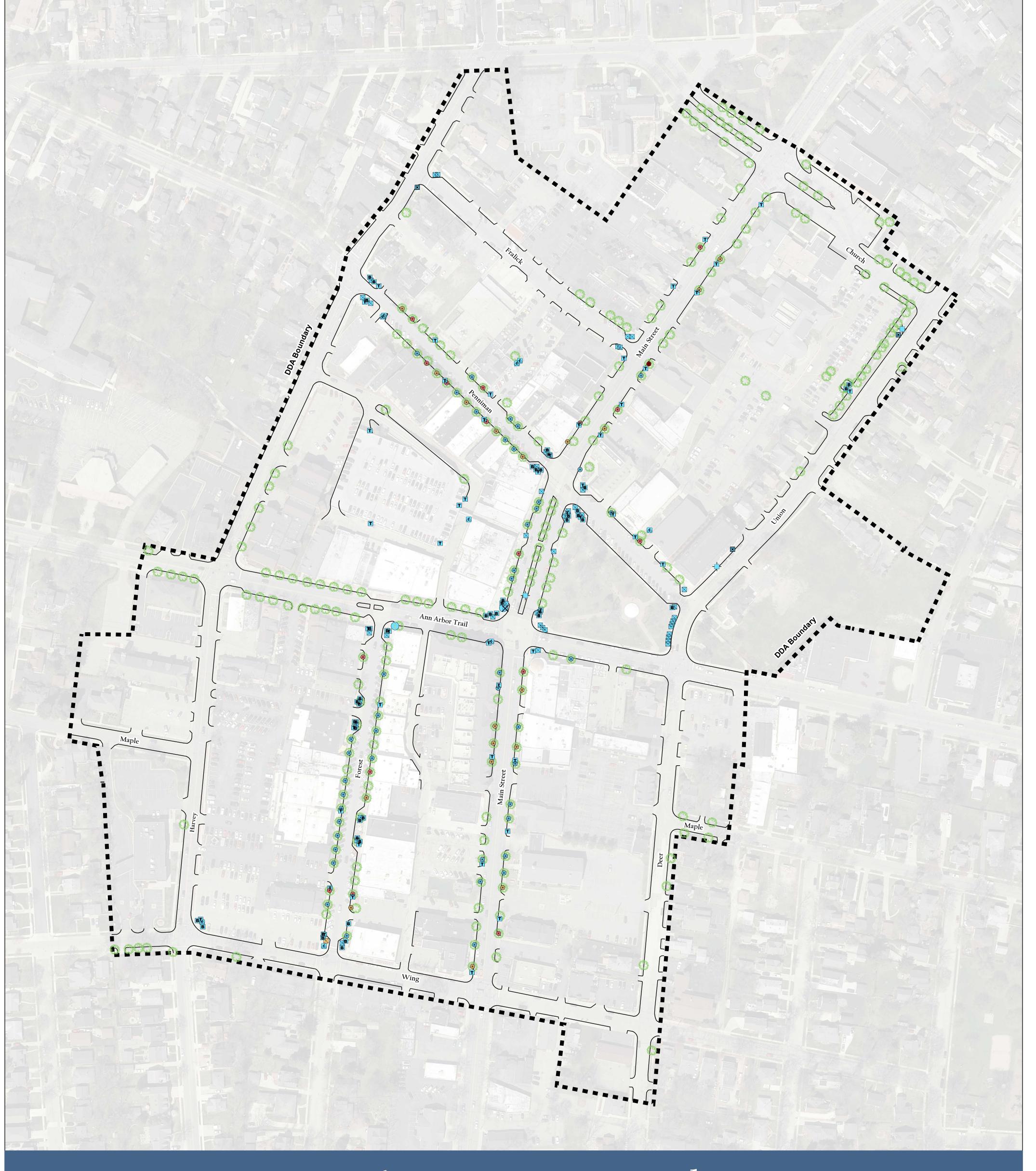
••• DDA Boundary

— Street Curb



Sources: DDA Boundary: City of Plymouth; Wade Trim Field Surveys, Spring 2019.





DDA Strategic Master Plan Streetscape Elements Condition Map



Sources: DDA Boundary: City of Plymouth; Wade Trim Field Surveys, Spring 2019.

- Bench
- Bike Rack
- Drinking Fountain
- Information Sign
- Other

- Planter
- Recycling Receptacle
- Trash Receptacle
- Tree Grate
- Tree
- Communications Utility Cabinet

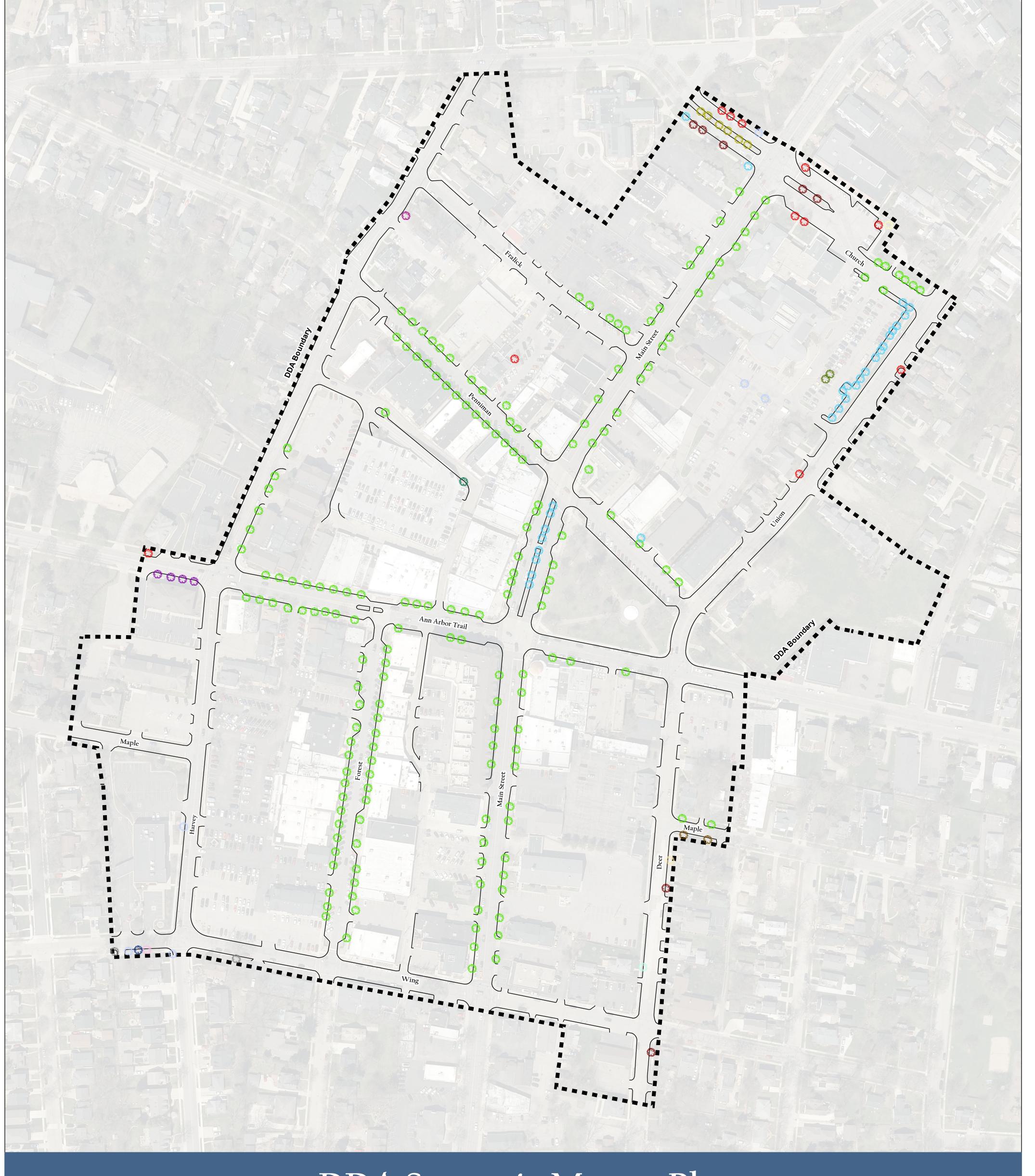
1 inch = 100 feet

- Good
- Fair
- Poor
- Very Poor
- --- DDA Boundary

— Street Curb

0.025 0.05 0.1

June 2019



DDA Strategic Master Plan Street Tree Location Map





Sources: DDA Boundary: City of Plymouth; Wade Trim Field Surveys, Spring 2019.

Tree Type (Common Name)

- American Elm
- American Linden
- Boxelder Maple
- Callery Pear
- Red Maple
- Norway Maple
- Crabapple
- Honey-Locust
- Japanese Zelkova
- Maidenhair Tree
- Northern Catalpa
- Siberian Elm

June 2019

DDA Boundary

Street Curb Silver Maple

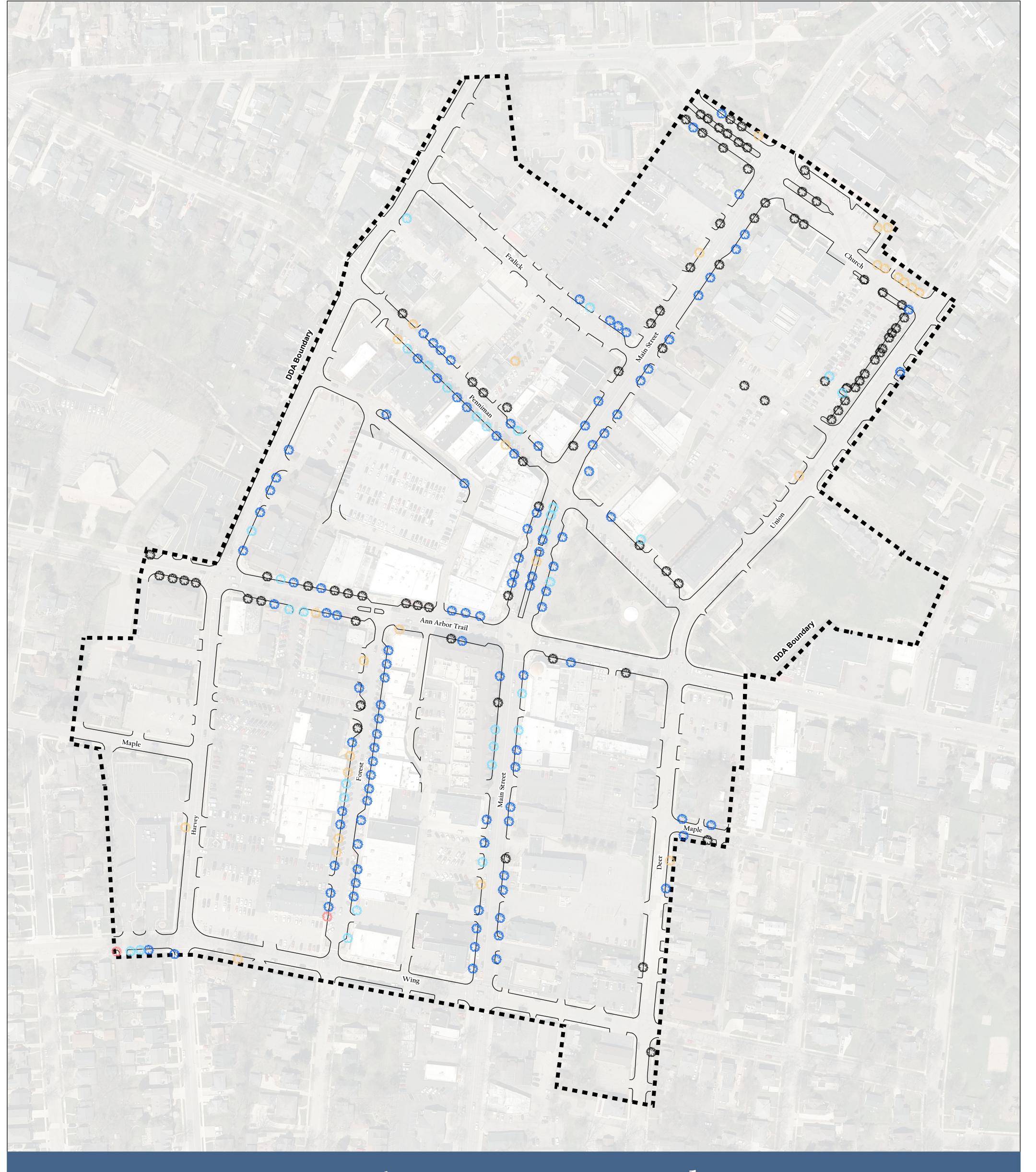
Swamp White Oak

Sugar Maple

Sweetgum

Tree-Of-Heaven

0.025 0.1 0.05 ■ Miles 1 inch = 100 feet



DDA Strategic Master Plan Street Tree Condition Map



Sources: DDA Boundary: City of Plymouth; Wade Trim Field Surveys, Spring 2019.

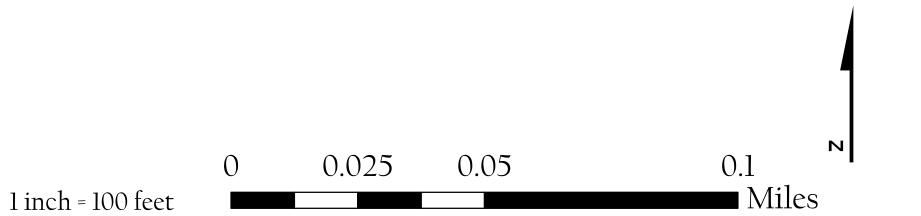
Condition

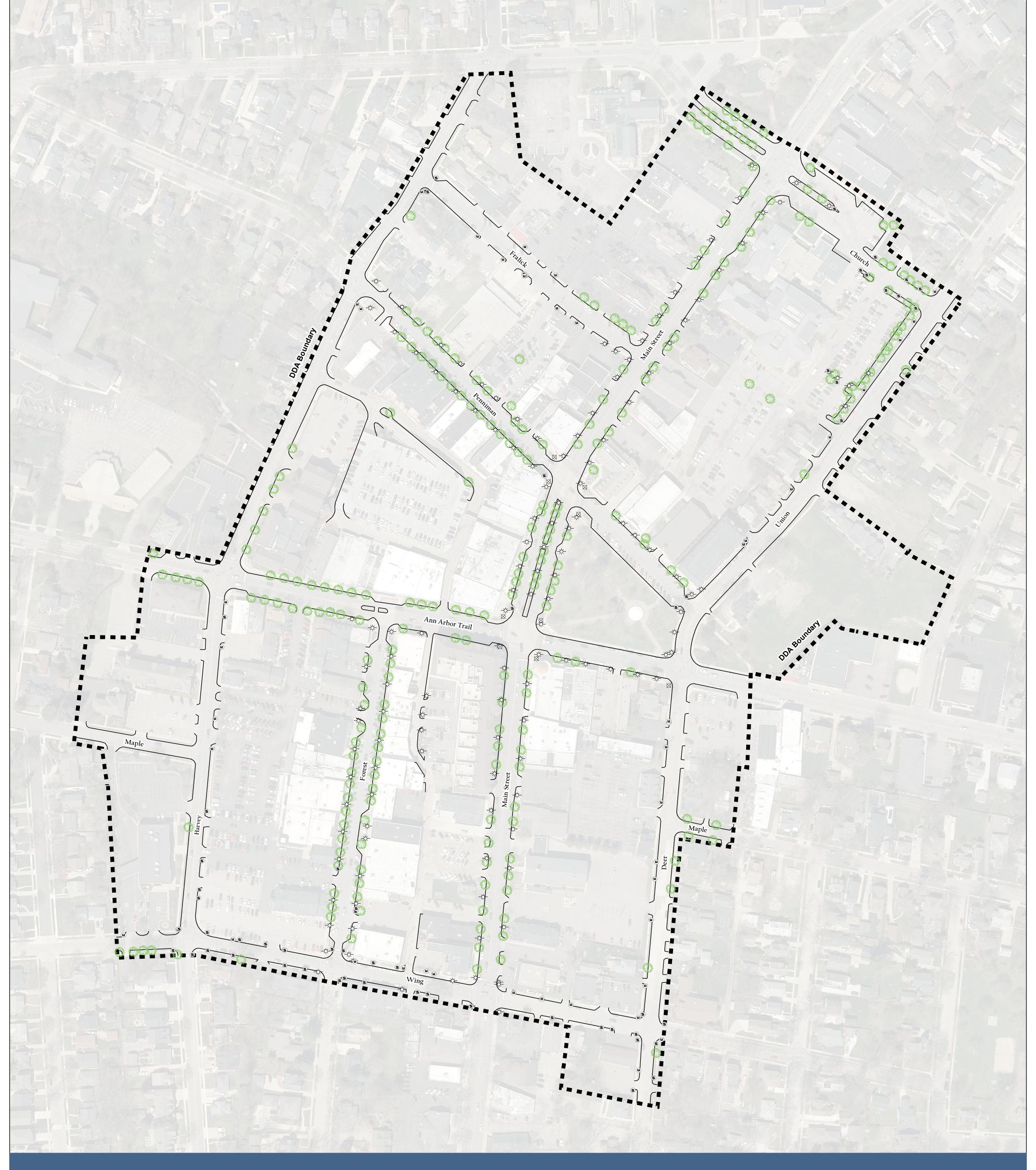
- Excellent
- Very Good
- Good
- Fair
- Poor

June 2019

DDA Boundary

— Street Curb





DDA Strategic Master Plan Poles Location Map



Sources: DDA Boundary: City of Plymouth; Wade Trim Field Surveys, Spring 2019.

Signa Signa

Sign

Tree

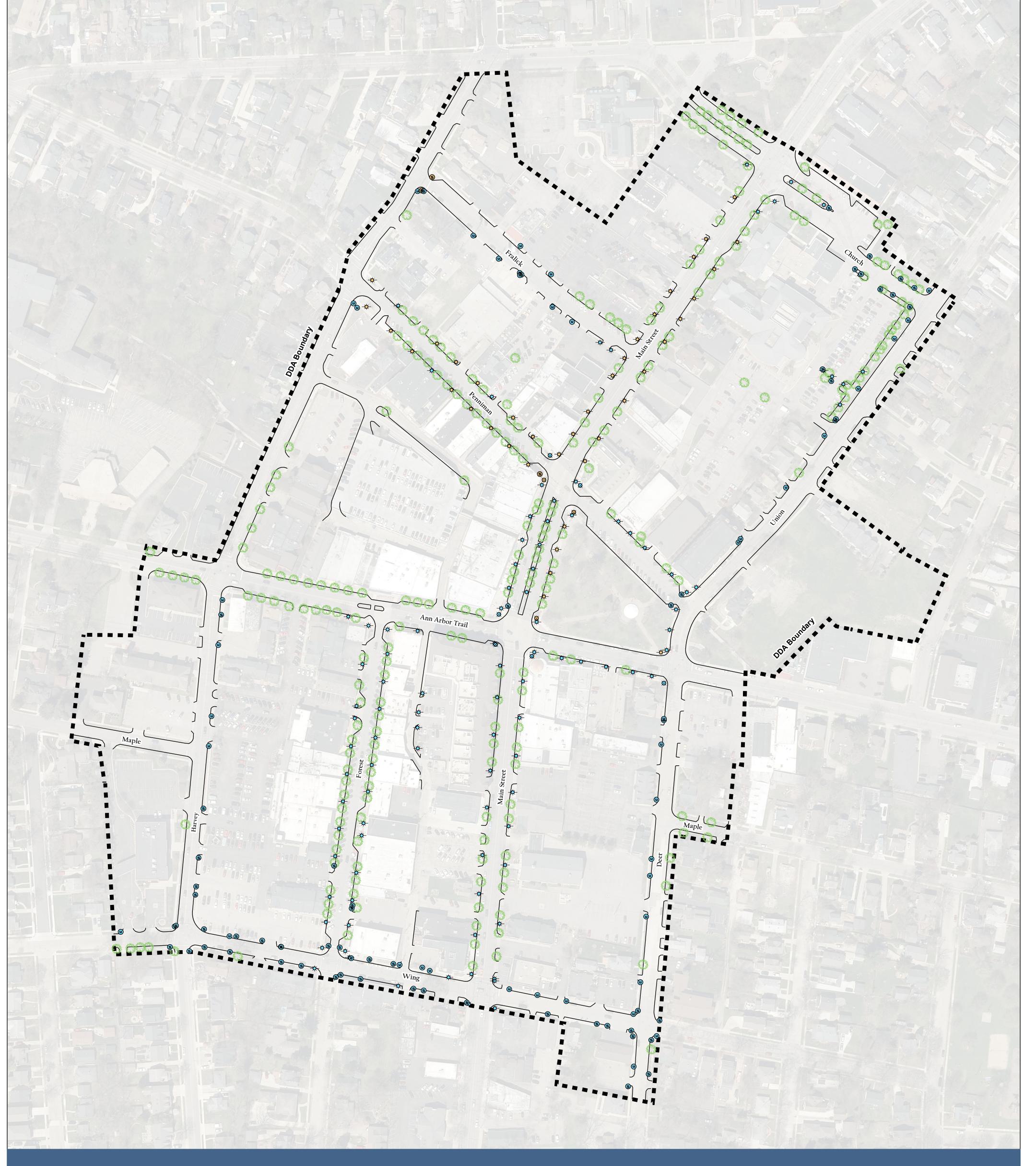
Signal ••••• DDA Boundary

* Streetlight — Street Curb

• Utility

0 0.025 0.05 0.1 1 inch = 100 feet Miles

June 2019



DDA Strategic Master Plan Poles Condition Map



Sign

Good

Tree

× Signal

Fair

Poor

---- DDA Boundary

June 2019

* Streetlight

—— Street Curb

• Utility

Very Poor

0 0.025 0.05 0.1 1 inch = 100 feet Miles

Sources: DDA Boundary: City of Plymouth; Wade Trim Field Surveys, Spring 2019.

P:\Ply2120\01t\GIS-data\Projects\PolesCondition