Toledo Waterfront Connectivity Plan

Prepared for:

Port of Toledo
385 NW 1st Street
Toledo, OR 97391

City of Toledo
PO Box 220
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November 2009

CITATION

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The contents of this document do not necessarily reflect views or policies of the State of Oregon.

Parametrix. 2009. Toledo Waterfront Connectivity Plan. Prepared by Parametrix, Portland, Oregon. November 2009.

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1. INTRODUCTION

The *Toledo Waterfront Connectivity Plan* (Plan) will identify measures to improve connections between the Waterfront area with downtown Toledo and the greater transportation network. The Plan will guide Toledo toward the goal of providing access for bicycles, and pedestrians including the special pedestrian populations, users with wheelchairs, power-assisted scooters, and child strollers while preserving mobility for vehicle, freight, and rail traffic. The recommended improvements will refine the Port of Toledo's *Waterfront Development Strategic Plan* and support efforts in the community to develop the area for water-related industry, recreation, and cultural activities.

1.1 STUDY AREA

The study area is immediately west of downtown Toledo centered on an area located on Depot Slough. The boundary of the study area is generally defined by Depot Slough on the south, Yaquina Bay Road on the west, Toledo Frontage Road on the north, and Main Street on the east. The study boundary is indicated in Figure 1-1.

1.2 PLAN OBJECTIVES

The Toledo Waterfront Connectivity Plan is intended to develop plans and preliminary designs for infrastructure that will improve connectivity both within the study area, and between the study area and its surroundings. This plan identifies transportation projects to help achieve:

- Improved pedestrian connections between the study area and surrounding neighborhoods and business districts.
- Improved pedestrian and bicycle circulation within the study area.
- Improved ADA compliance and accessibility.
- Continued mobility for passenger vehicles and freight traffic through the study area.
- Improved vehicular access and circulation for parking at the transient boat dock area.
- Enhanced aesthetics and visitor information.
- Increased awareness of the Waterfront as a location for business, cultural, and recreational activities.

1.3 PLAN PROCESS

The Plan was developed through a process that: (1) reviewed the community's goals, and needs in current planning documents (2) assessed the existing and future conditions and deficiencies (3) developed and analyzed potential measures and improvements to address the needs and deficiencies, (4) refined improvement designs and developed cost estimates, (5) identified potential funding sources, and (6) developed plan and code amendments to implement solutions.

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SCALE IN FEET

StudyArea
Taxlot
Railroad
Streets

Figure 1-1
Study Area

A series of memoranda were produced throughout the process then combined into a single planning document for review and adoption by the Toledo Port Commission. The project team facilitated public meetings and consulted both public and technical advisory committees to obtain direction and feedback for the Plan.

1.4 REPORT ORGANIZATION

This plan is organized into six chapters beginning with this introduction. Chapter 2 provides a review of applicable plans, policies, and guidelines. Chapter 3 evaluates the existing conditions in the study area and characterizes the future land use conditions. Chapter 4 summarizes the resulting findings of transportation issues, deficiencies, and opportunities. Chapter 5 presents the recommended waterfront connectivity improvements. Chapter 6 presents the project cost estimates and follows with funding strategies, resources for implementing the improvement projects in Chapter 7

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2. REGULATORY FRAMEWORK

This section summarizes other planning documents relevant to the development of this Plan.

2.1 LOCAL POLICIES, STANDARDS, AND GUIDELINES

Port of Toledo Waterfront Development Strategic Plan (2007)

This document is a strategic plan for economic and recreational development of Port-owned and managed waterfront property along Depot Slough. This plan focuses on enhancing use of the waterway as well as job creation through light industrial and commercial development Several actions called for in this plan may affect the study area's transportation system and the expected users of the Waterfront area, including:

- Changing the zoning on three waterfront parcels to Light Industrial from Water Dependent to encourage development.
- Developing an "all-weather" public trail along Depot Slough "with linkages to other destinations." The plan calls for the inclusion of public art, lights, banners, seating, and landscaping with the trail.
- Improving accessibility and safety for pedestrians traveling between the project area and downtown with the development of pedestrian improvements at Butler Bridge Road.
- Implementing design guidelines for awnings, covered walks and exterior building and street lighting that integrates the Waterfront with the downtown, its history, and character.

City of Toledo Downtown Revitalization and Main Street District Plan (1996)

This plan provides and assessment and guidance for renovation of the downtown area to encourage economic growth and vitality. Included in the report is a market and business assessment, a review of existing conditions, and identification of improvement options. The Main Street District Plan presents the improvements options for addressing traffic/parking issues, streetscape enhancements, waterfront connections, and land use. Several elements in Main Street District Plan include improvement options that affect access between downtown Toledo and the study area at Butler Bridge Road at 2nd Street/Main Street and 1st Street.

2020 Vision for Toledo, Oregon: The 2000 Toledo Comprehensive Land Use Plan

Adopted in 2001, the City of Toledo's Comprehensive Plan is a long-range general policy guide that identifies and plans for future needs in the physical, social, economic, administrative, and financial policy and infrastructure. The Comprehensive Plan was intended to prepare Toledo for future growth, in compliance with Oregon's statewide planning goals. Comprehensive Plan Goals and Objectives relevant to the Toledo Waterfront Connectivity Plan include:

Article 5: Open Spaces, Scenic & Historical Areas, and Natural Resources

Open Spaces, Scenic and Natural Resources Objectives

- *Objective 1: Protect existing open space, scenic and natural resources which possess environmental, wildlife habitat, and aesthetic qualities, such as riparian vegetation along waterways, as required by state and federal law*
- *Objective 4: Protect the open space, scenic, recreational, and environmental values of the Olalla Slough, Depot Slough, Beaver Creek, Mill Creek and Yaquina River areas, tributaries thereof, and estuaries as required by state and federal law*
- *Objective 6: Where feasible, utilize and maintain public utility easements, public right-of-ways, and public lands to protect or obtain open spaces, scenic and natural resources in order to meet state and federal requirements*
- *Objective 7: Develop and implement a landscape enhancement program for Toledo's public right-of-ways and public property*
- *Objective 8: Preserve street trees where possible and develop programs to facilitate the planting of new street trees in the public right-of-ways to maintain Toledo's tree lined streets*

Article 6: Air, Water, and Land Resources Quality

Water Objectives

- *Objective 9: Develop standards that promote safe and efficient transportation and access facilities to minimize impacts on air, water, and land resource quality*

Land Resources Objectives

- *Objective 5: Encourage mixed-uses, development patterns and project designs that support walking, biking, ride-sharing, and the use of transit services (where transit is available) and that reduce the need to commute long distances between home and work*

Article 8: Recreation Needs

Overall Objectives

- *Objective 2: Provide opportunities for both passive and active recreation*
- *Objective 3: Protect and enhance the natural environmental qualities and values by incorporating into the community's recreational and open space plans the existing natural resources such as, drainageways, rivers, woodland areas, wetlands, and other scenic and open space features*
- *Objective 6: Provide linear parks and connections which incorporate hiking, jogging, walking, roller blading and bicycle trails or provide buggers between incompatible land uses*
- *Objective 9: Identify, develop and maintain Toledo's waterfront parks and public access areas as a major recreational focus through the development of walkways/bicycle paths, boat launching and moorage facilities, nature trails, and day use opportunities along Olalla Slough, Depot Slough, and Yaquina River areas*

Article 12: Transportation

Goals

- *Goal 1. Provide a safe and efficient, multi-model transportation system which provides linkages in a manner that enhances Toledo's neighborhoods, environment, economy, and social and scenic values*
- *Goal 2. Minimize the adverse social, economic, and environmental impact costs of constructing, maintaining, and using transportation facilities and services in cooperation with county, state, and other public agencies and the private sector*

Objectives

- *Objective 1. Provide a multi-model transportation system which provides services for motorized vehicles, bicycles, pedestrians, electronic data transmission, mass transit, and air, rail and water transport (including shipping)*
- *Objective 2. Encourage options other than the personal automobile for transportation services through comprehensive land use planning policies that would allow reliance upon the automobile and vehicle trips to be reduced*
- *a. Improve and support transit services*
- *b. Improve and support ride-sharing opportunities*
- *c. Support programs to reduce the single-occupancy trips for commuters to Newport and other Lincoln County and Benton County areas*
- *d. Encourage the provision of sidewalks, pedestrian paths, and bicycle paths/lanes*
- *Objective 4. Provide linkages within the community with a circulation system that is safe and convenient to all areas within the community and that links the community to Highway 20, rail, air, and water shipping facilities*
- *Objective 5. Build and maintain roadways and other transportation facilities in a manner that is the most cost effective for the life of the road so as to reduce public maintenance costs*
- *Objective 6. Provide transportation facilities designed to maintain safe conditions over time and in adverse weather conditions*
- *Objective 8. Support the role of Toledo as a regional center for air, water, rail, and roadway transport connections. Within Lincoln County, Toledo has the only sites which provide rail, air, water, and roadway connections for moving goods*
- *Objective 11. Maintain efficient and safe truck routes and rail services to support the transportation of people, goods, and services between major employment centers and markets*
- *Objective 13. Require new development to extend/improve transportation facilities to complete transportation system linkages and to mitigate impacts of additional traffic from new development on the existing transportation system and neighborhoods*
- *Objective 18. Minimize disturbances of the natural environment or use of natural resources when locating, constructing, maintaining, and using transportation facilities and services. Encourage land use patterns which minimize environmental impacts from transporting people, goods, and services*

Article 13: Energy Conservation

- *Objective 7. Encourage the use of energy-efficient modes of transportation by supporting programs, such as ride-share programs, and facilities, such as bike paths, that allow for a reduction in automobile usage*

City of Toledo Municipal Code: Title 10

Title 10 of the City of Toledo's Municipal Code implements traffic-related aspects of Toledo's Comprehensive Plan. The following chapters of Title 10 are related to pedestrians and bicyclists, and have bearing on pedestrian and bicycle infrastructure aspects of the Toledo Waterfront Connectivity Plan:

10.16.070 Pedestrians must use crosswalks.

No pedestrian shall cross a street other than within a crosswalk in blocks with marked crosswalks or if within one hundred fifty (150) feet of a marked crosswalk. (Ord. 1072 § 26, 1979)

10.16.080 Right angles.

A pedestrian shall cross a street at a right angle unless crossing within a crosswalk. (Ord. 1072 §27, 1979)

10.20.010 Bicycle operating rules.

In addition to observing all other applicable provisions of this title and state law pertaining to bicycles, a person shall:

A. Not leave a bicycle, except in a bicycle rack. If no rack is provided, the person shall leave the bicycle so as not to obstruct any roadway, sidewalk, driveway or building entrance. A person shall not leave a bicycle in violation of the provisions relating to the parking of motor vehicles;

B. Not ride a bicycle upon a sidewalk, except on designated bicycle paths. (Ord. 1072 § 24, 1979)

City of Toledo Municipal Code: Titles 15 and 17 (Amended 2005)

The Buildings and Construction and Zoning Ordinance Titles of the City of Toledo's Municipal Code implement the City of Toledo's Comprehensive Plan and regulates the development and use of lands within the Toledo urban growth boundary (UGB). It guides the design and approval process for land use development applications and requires associated transportation improvements. It includes design standards for transportation facilities required as a condition of development approval, including provisions for the construction of sidewalks, bicycle parking, and public access ways. The following chapters of the Zoning Ordinance have particular bearing on aspects of the Toledo Waterfront Connectivity Plan:

17.40 Main Street District Overlay

Chapter 17 establishes an Overlay District which is partially within the study area. This chapter exempts development within the Overlay District from the following sections of code:

A. Setback requirements of the Commercial Zone of Section 17.16.040

B. Parking requirements of Section 17.44.030

C. Landscaping requirements of Section 17.52.020

TOLEDO TRANSPORTATION SYSTEM PLAN (1995)

The City of Toledo TSP documents existing issues and establishes goals, standards, and improvements recommendations for the transportation network in Toledo. One of the key transportation issues identified in the TSP is that existing pedestrian and bicycle facilities are not continuous, and a cohesive network that would serve businesses and other community destinations is needed. In the study area, pedestrian and bicycle improvements were identified for Yaquina Bay Boulevard, 1st Street, 'A' Street, and the Waterfront area between Butler Bridge Road to Yaquina Bay Boulevard.

The TSP established standards for sidewalks is 6 feet (with a minimum of 5 feet), and for bicycle lanes the standard is 6 feet along Hwy 20 and 5 feet for all other facilities. There is not a standard for multiuse path.

2.2 STATE AND FEDERAL POLICIES, STANDARDS, AND GUIDELINES

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) prohibits state and local governments from discriminating against people with disabilities in all programs, services, and activities. Under the ADA, the U.S. Access Board has developed and continues to maintain design guidelines for accessible buildings and facilities known as the ADA Accessibility Guidelines (ADAAG). These guidelines were adopted by the U.S. Department of Transportation, published as the ADA Standards for Accessible Design, and enforceable under the ADA.

"The implementing regulations for Titles II and III of the ADA require curb ramps to be provided in all existing facilities and for new construction and alterations."[1] However, with the exception of curb ramps, accessibility standards have not yet been developed for sidewalks and trails.

Despite the current lack of enforceable standards, *"public and private entities who design and construct sidewalks and trails are still obligated under ADA to make them accessible to and usable by people with disabilities. Until specific standards are adopted as part of ADAAG, some of the existing scoping and technical provisions for new construction and alterations can be applied to the design of pedestrian facilities, such as":*[2]

- Accessible Routes (ADAAG 4.3)
- Curb Ramps (ADAAG 4.7)
- Ramps (ADAAG 4.8)

Rights-of-Way Accessibility Guidelines

In addition to maintaining the ADAAG, the U.S. Access Board has published draft public rights-of-way accessibility guidelines. While these guidelines have not yet been adopted into the ADAAG, the Board recommends that where ADA standards don't include applicable

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[1] Federal Highway Administration, U.S. Department of Transportation. "Designing Sidewalks and Trails for Access, Part I of II: Review of Existing Guidelines and Practices" Barbara McMillen, Program Manager; Beneficial Designs, Inc. Author. Clay Butler, Illustrations. September 2001. http://www.fhwa.dot.gov/environment/sidewalk2/.

[2] *ibid*

provisions, the November 23, 2005 draft Public Rights-of-Way Accessibility Guidelines be referenced as a best practices manual.[3] The draft guidelines address the following:

- Pedestrian Access Route
- Alternate Circulation Path
- Curb Ramps and Blended Transitions
- Detectable Warning Surfaces
- Pedestrian Crossings
- Accessible Pedestrian Signals
- Street Furniture
- On-Street Parking
- Call Boxes

Federal Highway Administration

In an effort to highlight when ADAAG provisions apply to sidewalks and trails, and how to bridge the remaining gaps, the Federal Highway Administration (FHWA) released *Designing Sidewalks and Trails for Access* as a two-part guidebook: *Part I: Review of Existing Guidelines and Practices* and *Part II: Best Practices Design Guide*. Part I is a compilation of data, designs, and guidelines collected from literature reviews and site visits. Part II focuses on the design process and identifies best practices for designing sidewalks and trails for access by all users.

American Association of State Highway and Transportation Officials

The American Association of State Highway and Transportation Officials (AASHTO) has published two books, the *Guide for the Planning, Design, and Operation of Pedestrian Facilities* (2004) and the *Guide for the Development of Bicycle Facilities* (1999), that are intended to provide guidance on the planning, design, and development of bicycle and pedestrian facilities to ensure the safe accommodation of all modes of travel on public rights-of-way.

Manual on Uniform Traffic Control Devices

FHWA, with the active assistance from the National Committee on Uniform Traffic Control Devices, adopted the Manual on Uniform Traffic Control Devices (MUTCD) in 2003.[4] In general, the Manual provides directives for traffic control devices that are to be used as standards, including warrants and design of pedestrian markings, signs, and signals. Pedestrian and bicycle provisions in the MUTCD are located in a number of the parts of the manual. Relevant sections include:

- Section 3B.17 Crosswalk Markings
- Section 4C.05. Warrant 4. Pedestrian Volume
- Section 4D.03. Provisions for Pedestrians

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[3] Available at: http://www.access-board.gov/prowac/draft.htm.

[4] Federal Highway Administration, U.S. Department of Transportation. "Manual on Uniform Traffic Control Devices 2003 edition".

- Section 4E Pedestrian Control Features
- Section 8 Traffic Controls for Highway-Rail Grade Crossings
- Section 9C.04 Markings for Bicycle Lanes

Oregon Bicycle and Pedestrian Plan (1995)

The Oregon Bicycle and Pedestrian Plan (OBPP) guides planning, design, and operation of facilities for bicycle and pedestrian travel. This Plan is divided into two sections: Section 1, Policy & Action and Section 2, Planning, Design, Maintenance & Safety. Section 1, Policy & Action, provides background information and addresses the goals, actions, and implementation strategies ODOT proposes to improve bicycle and pedestrian transportation. The material on Planning, Design Maintenance & Safety, provides guidelines to ODOT, Cities, and Counties in the design, construction, and maintenance of pedestrian and bicycle facilities.

The OBPP set forth the standards and guidelines for bikeways, walkways, and other pedestrian facilities, including crossing treatments that should be followed within the state of Oregon. Many of the standards and guidelines described below are based on federal standards and guidelines. The OBPP is being updated and in the interim, the Oregon Highway Design Manual provides some of the updated design guidelines for bicycle and pedestrian facilities. These guidelines are shown in Table 2-1 and descriptions of the facility types and dimensions are included below.

Table 2-1. Bicycle and Pedestrian Facility Design Standards

Facility	Urban	Rural
Sidewalk		
Standard	• 6 ft min. with 2 ft buffer* • 8 ft without buffer	*Shoulders can be used to accommodate both pedestrians and bicyclists
Bridges	• 7 ft min.	
High Use Areas	• 10 ft min.	
Multiuse Path**		
Standard	• 10 ft min.	Path may be provided where there is a specific use such as a school or as deemed appropriate to the road and land use character and users
High Use Areas	• 12 ft min.	
Bicycle		
Bike Lane	• 6 ft min.	• 6 ft min
Shoulder Bikeway	Not Applicable	• 6 ft min. • 4 ft min. on open shoulders • 5 ft min. at barriers such as curb or guardrail, or along on-street parking

Note: Oregon Highway Design Manual, 2003, unless otherwise noted.

*Buffers can include parking, bike lanes, and planter strips.

*Source: Oregon Bicycle and Pedestrian Plan, 1995.

On-Road Bikeways[5]

Bicycles are legally classified as vehicles in Oregon, and roadways must be designed to allow bicyclists to ride in a manner consistent with the vehicle code. A bikeway is created when a road has the appropriate design treatment to accommodate bicyclists, based on motor vehicle traffic volumes and speed. The basic design treatments to accommodate bicycle travel on the road are: shared roadway, shoulder roadway, or bike lane. Another type of facility is separated from the roadway: the multiuse path.

Shared Lane

A shared lane is a travel lane shared by bicyclists and motorists. It is common for neighborhood streets and rural roads and highways to have shared lanes. Most bicycle travel occurs on streets and highways not specifically designated as bikeways. Often these roadways may be adequate and safe for bicycle travel without signing and striping for bicycle use. However, there are other roadways where bicycle travel should be discouraged because of the existing roadway or travel conditions. This situation may be resolved by designating particular routes as bikeways.

There are no specific bicycle standards for most shared roadways; they are simply the roads as constructed. Shared roadways function well on local streets and minor collectors, and on low-volume rural roads and highways. Shared roadways are suitable in urban areas on streets with low speeds (25 mph or less) or low traffic volumes (3,000 average daily traffic [ADT] or less, depending on speed and land use). A wide curb lane may be provided where there is inadequate width to provide a bike lane.

Paved Shoulder

A paved shoulder is a wide, paved, outside travel lane with striping 3 to 6 feet from the edge of the pavement. Shoulders are allowed to serve both bicycles and pedestrians in rural areas. Parking along the shoulder may or may not be allowed along paved shoulder sections.

Bicycle Lane

A bike lane is a portion of the paved roadway that is designated by striping, signing, and pavement marking for the preferential or exclusive use of bicyclists. Bike lanes are often adjacent to the vehicle travel lane. ODOT's 2003 Highway Design Manual (HDM) includes a minimum width standard of 6 feet for bike lanes. Bike lanes are mandated on urban arterial and major collector streets. Bike lanes on rural roadways near urban areas, where there is high potential bicycle use, are permitted but not required, although shoulders are required.

Sidewalks

Sidewalks are usually between 6 and 8 feet in width. They are typically located along roadways, but are separated from vehicle traffic by a curb and/or a planting strip. The use of sidewalks as bicycle facilities is generally discouraged because bicycling on sidewalks can present safety issues to both bicyclists and pedestrians due to potential conflicts between the faster moving bicyclists and the slower moving pedestrians. Often cities have ordinances that prohibit bicyclists riding on sidewalks altogether or where there is an adjacent bike lane.

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[5] Oregon Bicycle and Pedestrian Plan (1995), II.1. On-Road Bikeways

Paths

Paths are typically used by pedestrians, cyclists, skaters, and joggers (Multiuse Paths). It is not realistic to plan and design a path for the exclusive use by pedestrians, as other users will be attracted to the facility. Paths may be unpaved or constructed with packed gravel or asphalt grindings, if they are smooth and firm enough to meet ADA requirements.

- **Multiuse Paths** – Well-planned and well-designed multiuse paths can provide good pedestrian and bicycle mobility. Paths can serve both commuter and recreational cyclists. The key components to successful paths include: continuous separation from traffic, scenic qualities, connections to land uses, well-designed street crossings, visibility, good design, and proper maintenance.[6]
- **Unpaved Paths** – The standard width of an unpaved path is the same for sidewalks. An unpaved path should not be constructed where a sidewalk is more appropriate. The surface material should be packed hard enough to be usable by wheelchairs and children on bicycles.

Crossing Policies and Treatments

Oregon Highway Plan Crosswalk Policy[7]

An engineering evaluation should be done before establishing marked crosswalks at locations other than signalized approaches at intersections, stop signs, or roundabouts. Marked crosswalks should be considered at uncontrolled approaches only when an engineering study demonstrates their need. These include criteria and considerations for the determination of when a pedestrian crossing should be marked with a parallel crosswalk and when it is appropriate to consider using continental (ladder) style crosswalks.

Criteria for Marking Crosswalks at Mid-Block Locations

Generally, mid-block crosswalks are discouraged for the same reasons as uncontrolled approaches. Mid-block crosswalks often do not generate good compliance from motorists. Mid-block crosswalks should only be considered when an engineering study demonstrates their need and the location meets specific criteria such as those outlined in the ODOT Traffic Manual.

Street Crossing Amenities

The ODOT HDM also provides information about crossing treatments that improve visibility and safety for pedestrians crossing the roadway. Providing raised medians and illumination, and improving sight distance are several treatments recommended by the HDM. Every effort should be made to remove or relocate objects that could obscure the views of and by pedestrians. Efforts should also be made to ensure that objects that could be a distraction to drivers are not located close to a crossing point. These include neon and other illuminated signs that are located on private property.

Railroad Crossing Policies and Treatments

By statute, crossings of a railroad in Oregon are regulated by the Rail division of ODOT. The rail division must issue an approval or order for a new crossing or alterations to existing crossings, including the approaches to the crossings. Crossing orders specify construction details and maintenance responsibilities.

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[6] Oregon Bicycle and Pedestrian Plan (1995), II.6. Multi-Use Paths

[7] ODOT Traffic Manual (2005), Chapter 6, Section 6.10, Crosswalk Approval

Where there are existing grade crossings of railroad tracks, bicycle lanes and sidewalks may be added as long as there is right-of-way available to add the facilities. New or altered sidewalks and at-grade crossings should not be less than 5 feet in width with a reasonably smooth surface condition. To reduce the risk of bicyclist wheels being caught in track flanges, the path of a bicycle should be designed to cross tracks be 90 degrees, or at a minimum 60 degrees. The addition of bicycle or pedestrian facilities at crossings may require the installation of automatic protective devices (lights and bells) if not already equipped. New crossings of railroad tracks for roadways, paths, or sidewalks should be grade separated crossings either over or under the tracks where feasible.

Oregon Administrative Rule Chapter 740, Division 120 addresses maintenance and construction of railroad crossings. Unless other agreements have been made, the railroad is responsible for maintaining the portion of the crossing between the tracks for the width of railroad ties. The remainder of the crossing is the responsibility of the roadway authority.

3. EXISTING CONDITIONS OF STUDY AREA

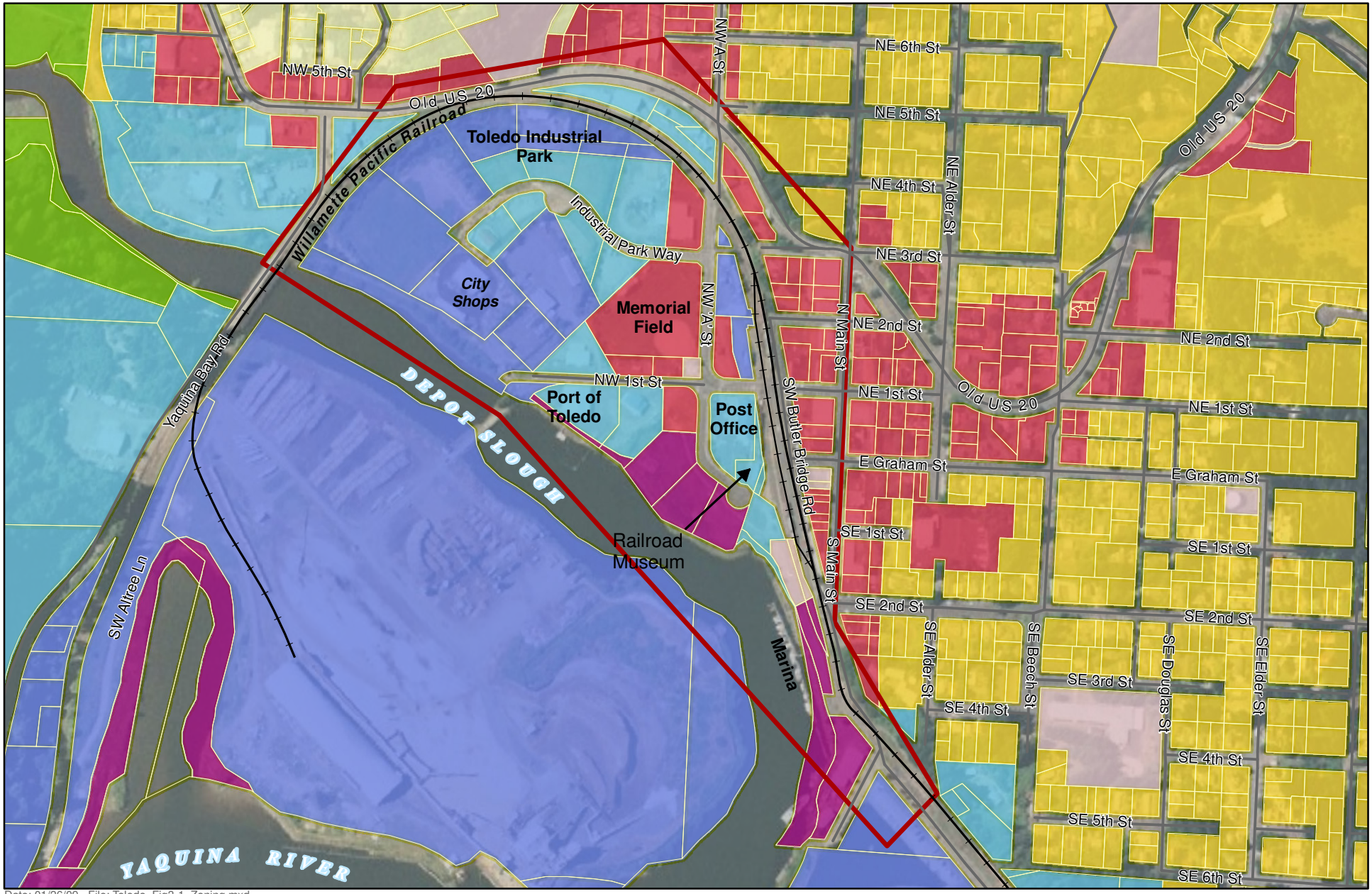
3.1 LAND USES AND ZONING

Toledo is a community of about 3,500 residents located on the Yaquina River approximately 7 miles east of Newport. In the past, Toledo was primarily a timber and mill town. Today, it is now more known for its antique shops, gift shops, and galleries. The Georgia-Pacific Pulp & Paper (GP) mill operates in Toledo and is the second largest employer in Lincoln County.

Main Street is heart of downtown Toledo and still has a large number of early 20th century buildings that gives Toledo a historic character. Many of these buildings are occupied by antique/gift shops, offices, and restaurants. The City of Toledo has designated the area immediately east of Main Street as an Art District, where artists live and work in studios and galleries that are open to the public.

The Waterfront area in this plan is centered on the existing and former industrial sites on Depot Slough south of 1st Street and west of Butler Bridge Road. The area is predominantly vacant and owned by the Port of Toledo. The zoning consists of industrial, light industrial, and water-dependent industry, predominately owned by the Port of Toledo. The southwest corner of 'A' Street and 1st Street, a bank is being constructed in the fall of 2009. In Figure 3-1 illustrates the Toledo zoning designations in the study area. The vacant area is currently primarily used for recreation and cultural events. The Port of Toledo, Post Office, and Railroad Museum are current uses in the area.

In recent years, the Port of Toledo has been successful in obtaining grants that have allowed the Port to provide new recreational and business development opportunities.



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SCALE IN FEET

Railroad
Streets
StudyArea
Taxlot
Commercial
Industrial
Light Industrial
Natural Resources
Public Lands
General Residential
Single Family Residential
Water Dependent

Figure 3-1
Zoning Designation Map

3.2 RECREATION AND EVENT ACTIVITIES

There are several destinations that attract a variety of users in the study area.

The Yaquina Pacific Railroad Historical Society offers a Museum off Industrial Way near the Toledo Post Office. The society restored the mail car to be used as a railroad interpretive museum.

Memorial Field, located on 'A' Street and 1st Street, provides an important venue for sports activities in Toledo. There is also playground for children adjacent to the park. The Toledo Summer Festival occurs the fourth weekend in July at Memorial Field. The festival activities include a carnival, food booths, beer garden, live music, local logging show, fireworks, and Cub Scout Pine Wood Car Derby.

The river and slough offers scenic views and bird watching. The Port of Toledo has contributed projects to supports more public access and enjoyment of the waterways. These projects include a viewing platform over Depot Slough, gravel path and benches, a small pavilion, and a boardwalk along the marina. Moorage for boats is provided by a transient boat dock along Butler Bridge Road near the Main Street/2nd Street intersection. The Port of Toledo has received funding to build some of buildings in the Waterfront Park including a gazebo and bathroom facilities. Construction is expected to begin in 2010.

The Port of Toledo also hosts several events in the Waterfront area. The largest is the Toledo Wooden Boat Show. Now in its fourth year, the show is held in August. It is a family event with new and vintage wooden boats on display, live music, food, boating demonstrations, and races. The event attracts 4-5,000 visitors during the three-day festival.

3.3 TRANSPORTATION SYSTEM

Roadway Transportation Network

The transportation in the study area includes bicycles, pedestrians, cars, freight, and rail. The existing network and conditions in the study are shown in several figures found in Appendix A. The primary roadways serving the area and their characteristics can be found in Table 3-1.

Table 3-1. Existing Study Area Primary Roadway Characteristics

Roadway	Classification	Bicycle and Pedestrian Facilities
'A' Street	Major Collector Truck Route	Sidewalk on one side No bike lanes
Yaquina Bay Blvd	Major Collector	No sidewalks, paved shoulder
Butler Bridge Road	Major Collector Truck Route	Sidewalk on one side No bike lanes
1st Street 'A' Street to Butler Bridge	Major Collector Truck Route	Sidewalk on one side No bike lanes
Hwy 20 Business	Minor Arterial	Sidewalk both sides No bike lanes

All the roadways in the area are two lanes except for Hwy 20 which has a center turn lane. There are cycling opportunities along the North Yaquina Bay Road, which begins in Toledo and follows the river to Yaquina Bay in Newport. The route, however, is poorly connected to facilities and destinations in Toledo.

Vehicle Volume Data

Traffic volume and classification counts were collected in May 2008 at three locations in the study area. Count data can be found in Appendix B. Roadway tubes collected data for a 24 hour period. This type of count procedure counts and classifies 13 different types of vehicles including the number of pedestrians and bicycles. The vehicles are summarized by the following classifications:

- Passenger Cars, trucks and medium trucks: 2-axle other with trailer, 2-axle 6-tire single-unit and buses.
- Heavy Trucks: 3-axles and greater single-units and all combinations.
- All Vehicles: Passenger cars, trucks, buses, etc.

Table 3-2 summarizes the average daily traffic volumes (ADT) for the three count locations while Table 3-3 summarizes the peak hour volumes. The count volumes have not been adjusted.

Table 3-2. Average Daily Traffic Count Summary

Roadway Section	Directional ADT		Heavy Truck Percentage of Total Volume
'A' Street (Between Hwy 20 and Industrial Drive)	Southbound 1400	Northbound 1600	4%
1st Street (Between 'A' St and Butler Bridge Road)	Eastbound 1450	Westbound 1620	5%
Butler Bridge Road (Between Graham St and Main/2nd St)	Southbound 1220	Northbound 1350	6%

The truck traffic primarily represents freight traffic serving the GP facilities on Butler Bridge Road or the western terminus of 1st Street. This traffic originates from Hwy 20, traveling to the GP facilities via 'A' Street to either destination.

Table 3-3. Peak Hour Count Summary

Count Location	AM and PM Peak Hours	Direction Total	Standard Vehicle Total (Cars, Trailers, 2-Axle, and Buses)	Heavy Vehicle Total (3–6-Axle)
Butler Bridge Road (between Graham St and Main/2nd St)				
SB	6-7 AM	99	85	14
NB	6-7 AM	70	61	9
Both Directions	6-7 AM	169	146	23
SB	3-4 PM	85	68	17
NB	3-4 PM	147	126	21
Both Directions	3-4 PM	232	194	38
1st Street (between 'A' St and Butler Bridge Road)				
EB	6-7 AM	102	89	13
WB	6-7 AM	75	65	10
Both Directions	6-7 AM	177	154	23
EB	3-4 PM	104	83	21
WB	3-4 PM	168	141	27
Both Directions	3-4 PM	272	224	48
'A' Street (between Hwy 20 and Industrial Drive)				
SB	11-12 AM	91	72	19
NB	11-12 AM	100	80	20
Both Directions	11-12 AM	191	152	39
SB	5-6 PM	121	108	13
NB	5-6 PM	116	103	13
Both Directions	5-6 PM	237	211	26

The peak hours of 6-7 AM and 3-4 PM on Butler Bridge Road and 1st Street reflect employees traveling to GP facilities their shift assignments. The afternoon peak also coincides with school release times. 'A' Street has a different AM and PM peak hour and serves traffic accessing a variety of locations and businesses including Memorial Field, the post office, and Les Schwab Tire Store. However, the peak hour volumes are not very different from the volumes at 6-7 AM and 3-4 PM volumes.

Crash and Traffic Incidents

The City of Toledo provided police responses to traffic related incidents on 'A' Street, 1st Street, and Butler Bridge Road between January 2006 and March 2008. In the study area, there were five total incidents that can be broken down into three types:

- Driving around crossing arm clipping train
- Rear-end collisions
- Improper towing/vehicle malfunction.

None the incidents resulted in serious injury. Residents commented on a number of "close calls" while crossing Butler Bridge Road from the marina and trying to see around rail cars eastbound on 1st Street at Butler Bridge Road.

Rail Conditions and Operations

In the study area, rail services are provided by Willamette Pacific Railroad (WPRR). WPRR operates freight service from a connection with Union Pacific railways in Albany to Toledo via Corvallis and Philomath (75 miles of track). Rail traffic is primarily forest and paper products, scrap, and steel with an estimated total of 38,000 rail cars a year.

WPRR serves two Georgia Pacific facilities in Toledo. Near Toledo the line runs adjacent to the Yaquina River and enters town from the east along Butler Bridge Road. The line crosses Butler Bridge Road near its intersection with Main Street. The line continues to the west crossing the Depot Slough adjacent to Yaquina Bay Road to serve one of the Georgia Pacific sites where the line terminates. The WPRR has five crossings of public roadways in Toledo. Table 3-4 lists the crossing locations, number of tracks, and warning system at each crossing. Four of the public roadway/rail crossings are equipped with active grade crossing warning devices that physically prevent motorists from entering crossings when trains are present. Figures in Appendix A illustrate crossings in the study area.

Table 3-4. Toledo Rail Crossing Characteristics

Rail Crossing Locations in Toledo	Number of Tracks	Warning Treatment
E. Slope Road at Butler Bridge	2	Active
Butler Bridge Road (east crossing)	1	Signage
Butler Bridge Road at Main Street/2nd Street	1	Active
1st Street	4	Active
'A' Street	2	Active

Rail cars arrive daily at Toledo. The Georgia Pacific site adjacent to Yaquina Bay Road receives trains weekly. The trains rarely extend off-site or across the Depot Sloughbridge. The Butler Bridge Georgia Pacific site receives cars daily. Additional cars are stored on the three rail spurs in the yard along Butler Bridge Road between 1st Street and Main/2nd Street in the study area. Rail cars are shifted daily from the storage yard to service Georgia Pacific. Currently, rail car shifts operate Monday through Friday, with an occasional Saturday operation as needed. The engineer and crews pull rail cars out of the storage yard from one track at a time. They then push them back along the tracks to assemble a full train. Typically, this operation takes about 1.5 hours.

According to documented observation, the pulling and spotting of rail cars to the Georgia Pacific sites results in blocking of the public roadway crossings for only minimal amounts of

time. The rail operations also occur when there are relatively low traffic volumes on the public roads.

3.4 FUTURE CONDITIONS OF STUDY AREA

Although Toledo has been negatively impacted by the decline of timber-related industry, the community has worked to attract new commercial businesses, industry, and tourism. The revitalization of Main Street, the increase in resident artists, and the ongoing efforts in the Waterfront area for both recreation and employment will make Toledo a more desirable place to live, work, and visit. The Waterfront area is a key part of the plan as Toledo continues to move forward.

The Port recently received a grant from the Oregon Marine Board that will fund development of a transient boat dock on Depot Slough near the marina, directly across from where Main Street intersects with Butler Bridge Road. This transient boat dock is anticipated to increase visitor traffic in Toledo and to support other recreational and cultural uses in the Waterfront area. Several vacant sites on the Waterfront are available for water-dependent industry, industrial, and light industrial uses. The Port of Toledo is actively recruiting potential businesses. A conceptual master plan for the Waterfront area included in the Waterfront Strategic Plan can be found in Appendix C.

As events downtown grow and expand, recreational areas and supporting activities increasingly occur in the Waterfront area. These events include the Wednesday Street Market held June through September on Main Street, the Toledo Art Walk held on Labor Day weekend each year to exhibit the area's thriving art community, and the Antique Street Fair and Classic Car Show held the first weekend in August to showcase antiques and classic cars.

The Summer Festival and Wooden Boat Show attendance continues to increase and additional space and amenities are needed to support the growth in these community events.

The Toledo TSP and other plans identify and recommend future improvements to the transportation system. New development and redevelopment will increase traffic on the arterial and collectors in the study area. An increase in truck and rail traffic associated with the GP facility is also expected. Improvements are needed to insure safety, accommodate growth, and improve circulation. The TSP recommends providing bicycle and pedestrian facilities to provide a continuous network. The intersection of Butler Bridge Road at Main Street/2nd Street was also identified in several plans for improvement.

As gas prices increase and people look for alternatives to driving and seniors are seeking a more physically active retirement, providing a network of safe and bicycle and pedestrian facilities becomes increasingly important and an asset for economic development.

4. STUDY AREA TRANSPORTATION ISSUES AND DEFICIENCIES

In the fall of 2007, the project team and the public advisory committee conducted a tour or the study area to observe existing issues and opportunities. A review of existing conditions in the study area, along with comments from the public advisory committee and the community, identified a number of concerns and ideas for the Waterfront area and accessibility. The following are just a few of the specific issues and concerns identified in the study area related to transportation.

• The lack of continuous pedestrian connections between the Waterfront area and the surrounding neighborhoods, road network, regional bicycle touring routes, and recreational opportunities. A loop system is desirable. • The need for signage and streetscape amenities to create an identity for the Waterfront and direct visitors to the area.	
• Vehicle access and circulation in parking area near the boat dock is unclear and not intuitive for visitors. • Vehicle and freight mobility through the area and accommodating truck turning radii at intersections should be maintained. • Vehicle speed along Butler Bridge Road is of concern. Drivers heading northbound turn onto Main Street without significantly reducing speed.	

• Consider a possible pedestrian bridge from Main Street over the railroad tracks to the Waterfront area. • North of 1st Street to Yaquina Bay Road, the path may require a boardwalk to separate the path from the private access road. • The lack of ADA compliant accesses and rough surfaces. • Railroad crossing pavement surface uneven and rough	
• Improve intersection crossings and better define traffic movements to improve safety for pedestrians and vehicles at Butler Bridge Road at 1st Street and Main Street/2nd Street. • Provide clear and safe locations for people to cross railroad tracks • The storage of rail cars at 1st Street and Butler Bridge Road impacts sight distance. Consider revision of traffic control at intersection improve pedestrian and vehicle crossing of tracks and roadway.	
• The crosswalk of Butler Bridge Road is south of the railroad crossing arm control and begins at a sidewalk and stairs on the north side, and ends at a curb on the south side that separates the tracks from the Waterfront parking lot. The crosswalk should be examined and possibly relocated considering: crossing of railroad tracks, intersection spacing, railroad crossing control, ADA access, safety, and clarity for visitors.	

There are a variety of ways to address these needs and opportunities. The following chapters identify tools and improvements that could be used to address these issues.

5. CONNECTIVITY IMPROVEMENT RECOMMENDATIONS

This chapter outlines the recommended improvements to address the opportunities and deficiencies identified in the previous chapters. Comments from the public and technical advisory committees to used to refine design elements and improvements to a recommended set of improvements. The information used in this plan will provide information about specific design elements to inform the final design and construction.

5.1 IMPROVEMENT EVALUATION CRITERIA

The identification of potential improvements is an important step in focusing the further efforts of the Waterfront Connectivity Plan, prioritizing investment projects for improving or creating new connections, and promoting an enjoyable waterfront environment. The following criteria were used to assist with the process of evaluating proposed measures and improvements to the objectives of the Plan.

Does the improvement or measure:

- improve pedestrian connections between the study area and surrounding neighborhoods and business districts?
- fill in a missing gap in the bicycle and/or pedestrian system?
- increase ADA compliant access and connections?
- improve bicycle and pedestrian circulation in the study area?
- improve vehicular access and circulation for parking at the moorage area?
- offer potential benefits to the wider, regional community by offering opportunities for increased connectivity to destinations and bicycle/pedestrian facilities outside Toledo?
- attract new users or visitors with improved amenities and aesthetics?
- support existing or proposed land use and economic development plans?
- address bicycling, walking, vehicle, and/or rail conflicts at locations with documented or perceived safety issues?
- maintain mobility for passenger vehicles and freight traffic through the study area?
- seem feasible and reasonable to build or implement?

5.2 SUMMARY OF IMPROVEMENT DESIGN ELEMENTS

There are a variety of ways to improve connectivity in Toledo and address issues and needs, namely through the Four E's—Education, Enforcement, Engineering and Encouragement.

Table 5-1 provides specific engineering design element descriptions for recommended facility design, crossing, signage and markings, and amenities, as part of the Waterfront Connectivity Plan. This information is intended to provide addition detail to direct the design of the associated improvements. Appendix E includes the refined “Toolbox” of descriptions of the various improvement measures representing the Four E’s that was developed specifically for this Plan.

Table 5-1. Recommended Design Elements

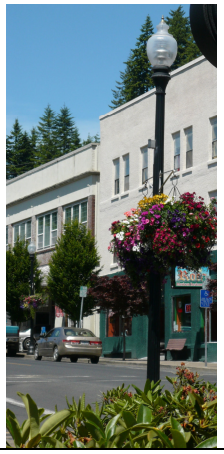
Treatment Type	Description
Facility Design	
Waterfront Path	A 10-12 foot wide asphalt to allow for two-way traffic and a smooth, all weather asphalt surface.
Boardwalk	Steel decking with asphalt surface on steel pin piles. Width of 14 foot width to allow for decorative railing, benches or interpretive signage.
Sidewalks	6 foot minimum width of unobstructed concrete sidewalk attached to curb or separated by 2-4 foot planter strip where possible.
Pedestrian and Bicycle Bridge	14 foot wide timber structure bridge. Approximately 370 feet in length.
Crossing Treatments	
Curb Extensions	Concrete curb extension within on-street parking lane.
ADA Ramps	Per ADA Accessibility Guidelines
High-Visibility Crosswalk Markings	A ladder or "Zebra" style crosswalk pavement markings. Which is a standard crosswalk-Two solid white lines, 12 to 24 inches wide, spaced at least 6 feet apart with added cross bar “rungs”. Width of ladder lines should be 1 foot, with minimum spacing of ladder lines 1-5 feet.
Refuge Islands	8 foot raised median islands are placed in the center of the roadway separating opposing lanes of traffic and are slotted with a 6 foot pedestrian path. Median should be vegetated with low height, climate appropriate plants.
Rail Crossing Surface	Concrete rail panels with flange way fillers. Provided in 8 foot increments.
Speed Humps	14 feet wide and 3–4 inches high, across entire roadway width. Pavement and signage Bump warning.
Maps and Signage	
Double-posted pedestrian crossing signs	Standard pedestrian crossing signs are installed on both sides of the approaching roadway at pedestrian crossing. Installation per MUTCD
Double-posted railroad crossing signs	Standard railroad crossing signs are installed on both sides of the approaching roadway at rail crossing. Installation per MUTCD.
Amenities	
Bollards	Decorative metal breakaway bollards with reflective markings and padlock for maintenance access.
Pedestrian Fence	4 foot cyclone fence placed immediately behind curb or edge of path.
Street Lighting	Single globe decorative luminaires to coordinate with Main Street design. May be with or without features to accommodate flower baskets or banners. Spacing a maximum of 200 feet between luminaires.

Any construction in Depot Slough would be subject to permitting requirements. Since the boardwalk piers to be built within the boundary of a tidal waterway, an easement from the Department of State Lands(DSL) would be required. A joint removal/fill permit from the Army Corp of Engineers (Corp) and DSL would also be required. As part of the Corp removal/fill permit a Biological Assessment of impacts from boardwalk construction would need to be completed and submitted to the National Marine Fisheries Service with a finding

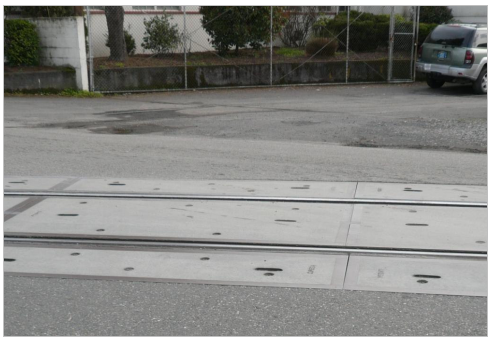
of “no affect” or “may affect, but not likely to adversely affect” are necessary to receive approval.

5.3 CONNECTIVITY IMPROVEMENT

Recommended improvements are presented in Figure 1A thru 1F in Appendix D. The following tables present the location and brief description of the recommended design improvements and important considerations for design. The considerations include alternatives that were considered and how the improvement addresses the needs, issues, or opportunities previously identified.

Location: Waterfront Path	**Reference Figure:** Figure 1
Segments	Butler Bridge Parking Lot to 1st Street and west of 1st Street to railroad tracks
Recommended Facilities	• 10-12 foot asphalt shared use path with additional width for locations with path amenities • Decorative single globe lighting along path
Additional Treatment Options	Interpretive Signage along path section Guide signage –map at moorage parking lot area Bicycle rack - moorage area Add landscape plantings along path, consider using native trees and plants Incorporate existing benches into design or relocate
Considerations	• Provides continuous pedestrian and bicycle connections in the Waterfront area, surrounding neighborhoods, road network, and regional bicycle touring routes. Improved surface for wheelchairs and strollers. Provides opportunity for enjoyment of waterway and recreation.
Sample Treatment Options	 Sample Lighting Path

Location: 'A' Street	**Reference Figure:** Figure 1
Segment	Hwy 20 to 1st Street
Recommended Facilities	Replace and repair existing sidewalk with 8 foot concrete sidewalk on west side of roadway
Considerations	Improves width near Memorial Park to accommodate higher use. Fills in gap in existing sidewalks to provide a continuous route and connections to other destinations, services, and neighborhoods.

Location: Depot Slough Crossing	**Reference Figure:** Figure 1A
Segments	West end of Waterfront Path to Yaquina Bay Drive
Recommended Facilities	• 14 foot wide timber framed pedestrian and bicycle bridge • 8 foot asphalt shared use path with additional width for locations with path amenities • 6 foot concrete sidewalk along Yaquina Bay Drive to bridge • 4 foot fence to separate path from railroad tracks • Concrete railroad crossing panels and crossing signage
Additional Treatment Options	Interpretive Signage along path section Guide signage –map at moorage parking lot area Bicycle rack - moorage area Add landscape plantings along path
Considerations	• Right-of-way needs to be checked and easement obtained south of the slough. • Railroad crossing request and approval needed for proposed pedestrian crossing, however it is near an existing private vehicular crossing. This is the most likely location for crossing and possible approval by rail division. • Other crossing options were considered including a new at grade crossing over railroad, tunnel undercrossing of railroad, or at water level crossing under the existing bridges, none were found feasible based on operational and physical constraints. • Bike/Ped Bridge supports and construction will impact Depot Slough and require an environmental assessment and permitting. • Improvements to the railroad panels for the vehicle crossing should also be considered at the same time the pedestrian connection is constructed. • Coordination with railroad for final design and construction of improvements. • One alternative for the bridge structure is to consider re-using the temporary structures built during the rehabilitation of bridges throughout the state. Contact ODOT for availability.
Sample Treatment Options	 Railroad Crossing Panels
	 Timber Bridge

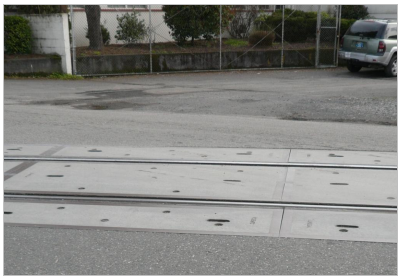
Location: Waterfront Path and 1st Street	**Reference Figure or Map Key:** Figure 1B
Segment	1st Street and path Crossing Area
Recommended Facilities	• 14 foot boardwalk structure, metal decking with asphalt surface and railing • 10 foot wide Ladder Style Crosswalk across 1st Street • 6 foot wide sidewalk from east side of 1st Street waterfront path to match existing sidewalk along Port of Toledo Offices frontage • Speed humps north and south of crossing • Warning signage for crosswalk • Removable bollards at path/boardwalk intersection with 1st Street
Additional Treatment Options	Install fence on east side boardwalk to prevent use of private access road Interpretive Signage on boardwalk and benches
Considerations	• The existing access road for the city shop and electrical substation is approximately 20' wide as its narrowest point as it approaches the intersection with 1st Street NW. This does not allow for enough width to maintain two-way traffic and build a pedestrian sidewalk on the south side. • Bike/Ped Bridge supports and construction will impact Depot Slough and require an environmental assessment and permitting. • May need to add lighting to crosswalk if path use is allowed during hours of darkness • Coordination with GP with regard to speed hump on northbound approach to crossing
Sample Treatment Options	 Speed Hump
	 Boardwalk

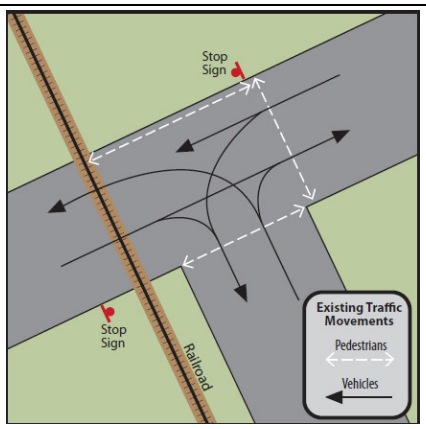
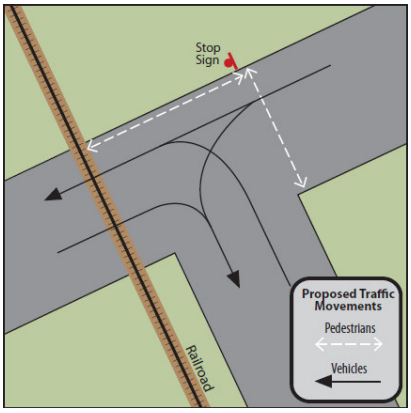
Location: Butler Bridge Road	**Reference Figure:** Figure 1
Segment	1st Street to Main Street/2nd Street Crosswalk
Recommended Facilities	4 foot cyclone fence just behind concrete curb on west side of road
Considerations	• An effective barrier to channel pedestrian to designated railroad track crossings and deter unauthorized access to tracks • Fence has higher cost but determined more effective than the vegetation or cable barrier which could be less effective but lower cost

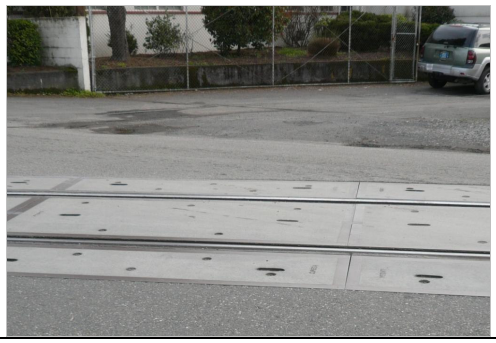
Location: Yaquina Bay Road	**Reference Figure:** Figure 1
Segment	Slough Bridge to Hwy 20
Recommended Facilities	8 foot concrete sidewalk on west side of road
Considerations	Fills in gap between path and existing sidewalks to provide a continuous route and connections to other destinations, services, and neighborhoods.

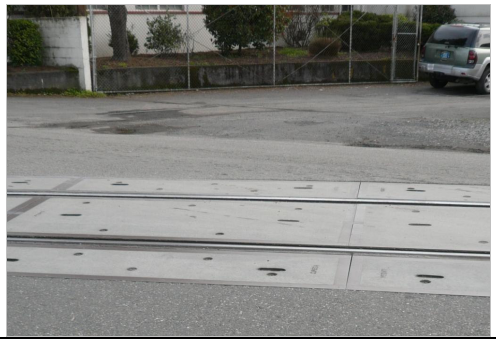
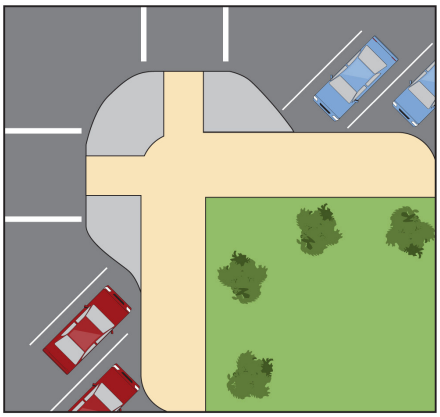
Location: 'A' Street	**Reference Figure:** Figure 1
Segment	Railroad Crossing between Hwy 20 and 1st Street
Recommended Facilities	Improve to the railroad crossing pavement surface with concrete panels

Location: Study Area	**Reference Figure:** Figure 1
Segment	
Recommended Facilities	Amenities and Signage
Considerations	• Providing clear guide or wayfinding signage throughout the study area at key locations would direct visitors to the Waterfront and other destinations, and regional connections. • Signage style could be distinctive or relate to existing design theme. Relatively low cost improvement. • The need for signage and streetscape amenities at key locations to support the existing identity of Toledo and/or create an identity for the area. Increase enjoyment, appreciation and recreation in the area.
Sample Treatment Options	

Location: NW 1st Street	**Reference Figure:** Figure 1C
Segments	'A' Street to Butler Bridge Road
Recommended Facilities	• 8 foot median with low height vegetation • 10 foot wide ladder style crosswalk across 1st Street with break in median • 6 foot sidewalk on north side of 1st Street • Warning signage for crosswalk and railroad crossing • Install concrete rail panels •
Additional Treatment Options	Add main street style street light Add low growing landscape plantings to median
Considerations	• Median restricts Post Office driveway to right-in, right-out movements as posted. • Coordination required with railroad for design and construction of improvements. • Provides a smooth and ADA compliant crossing of the railroad track. • Closure of south crosswalk reduces the potential conflicts with traffic movements and safety issues related to sight distance associated with the storage of rail cars. Requires users to cross 1st Street, at the Post office or east of Butler Bridge Road. • New median and crosswalk provides a more visible crossing for pedestrians away from intersection, lessens crossing distance, and provides more direct access to Post Office.
Sample Treatment Options Sample Treatment Options	 Median with Crosswalk
	 Concrete Rail Panels

Location: NW 1st Street	**Reference Figure:** Figure 1C
Segment	Butler Bridge Road to Main Street
Recommended Facilities	• Construct curb extensions • 10 foot wide Ladder Style Crosswalk across 1st Street • Stripe angle parking on south side of 1st Street • Revise traffic flow and control. Convert 1st Street from Main to Butler Bridge Road to one way street westbound and allow angle parking on both sides of street. Remove eastbound stop sign on 1st Street at railroad tracks.
Additional Treatment Options	Add main street style street light
Considerations	• Reduces the issues and confusion of vehicles stopped eastbound where the storage of rail cars impact sight distance. • Reduces the number of potential conflict points and facilitates more efficient traffic flow for the heaviest traffic movements. • Allows for additional parking to be added along 1st Avenue, when one of the travel lanes is eliminated. • The one way on 1st St would require eastbound drivers to divert to Graham Street to access Main Street. Check sight distance at Graham Street and Main Street intersection. Restrict and/or remove parking/obstructions if needed. • Improve intersection crossings and better define traffic movements to improve safety for pedestrians and vehicles. • Temporary signage should be used to raise awareness of traffic control revision
Traffic Revision Graphics	 Existing Movements
	 Proposed Movements

Location: Butler Bridge Road and Main Street	**Reference Figure or Map Key:** Figure 1D
Segment	Intersection
Recommended Facilities	• Remove existing east west crosswalk on Butler Bridge Road • New 10 foot wide Ladder Style Crosswalk across Butler Bridge Road and though moorage parking lot • New 8 foot wide concrete railroad crossing panel • Install directional signage to moorage entrance opposite Main Street intersection • Install warning signage for crosswalk
Additional Treatment Options	-Install railing at curb face of sidewalk along Butler Bridge Road at base of stairs to direct pedestrians to new crosswalk -Additional lighting may needed to ensure crosswalk is clearly visible during hours of darkness
Considerations	• Railroad panel must be located outside of switching zone. Railroad crossing require approval from ODOT Rail Division. • Should consider section of fence along westside of Butler Bridge Road to direct pedestrians to crosswalk • Creates a safe and ADA compliant access crossing the railroad tracks to the Waterfront area. • Increase safety and clarity of crossing by locating it near an intersection where traffic is slower and pedestrians might be expected. • A bridge crossing from Main Street was considered but found to take up too much property on the west side of the railroad tracks to achieve an ADA compliant design, and was very expensive.
Sample Treatment Options	 Concrete Rail Panels
	 Crosswalk Markings

Location: Butler Bridge Road at 2nd Street/Main Street	**Reference Figure or Map Key:** Figure 1E
Segment	Intersection
Recommended Facilities	• Realign intersection of 2nd Street and Main Street • Add curb extensions, new sidewalks and crosswalks on 2nd St and Main St • Remove existing east west crosswalk on Butler Bridge Road • New 10 foot wide Ladder Style Crosswalk across Butler Bridge Road and though moorage parking lot • New 8 foot wide concrete railroad crossing panel • Install directional signage to moorage entrance opposite Main Street intersection • Install warning signage at crosswalk
Additional Treatment Options	-Install railing at curb face of sidewalk along Butler Bridge Road at base of stairs to direct pedestrians to new crosswalk -Optional landscaping in curb extensions -Additional lighting may needed to ensure crosswalk is clearly visible during hours of darkness
Considerations	• Creates a safe and ADA compliant access crossing the railroad tracks to the Waterfront area. • New intersection configuration would require northbound vehicles to slow on Butler Bridge Road to access Main Street and 2nd Avenue. Facilitates bicycles crossing of tracks at a more favorable angle • Better definition of the right-of-way, driveways, parking, and sidewalks would reduce conflicts between users and enforce proper behavior and courtesy. • Railroad panel must be located outside of switching zone • Railroad crossing requires approval from ODOT Rail Division. Since this crossing is currently paved, it is the most likely location for crossing and possible approval by rail division. • Should consider section of fence along westside of Butler Bridge Road to direct pedestrians to crosswalk
Sample Treatment Options	 Concrete Rail Panels
	 Curb Extension

Location: Butler Bridge Road at 2nd Street/Main Street	**Reference Figure or Map Key:** Figure 1F
Segment	Intersection
Recommended Facilities	• Realign intersection of 2nd Street and Main Street • Locate 24 foot wide driveway to moorage parking lot to align with Butler Bridge Road at 2nd Street/Main Street intersection. • New concrete railroad crossing panel for driveway and sidewalk • Add curb extensions, new sidewalks and crosswalks on 2nd St, Main St • Remove existing east west crosswalk on Butler Bridge Road • New 10 foot wide Ladder Style Crosswalk across Butler Bridge Road and though moorage parking lot • Install warning signage for crosswalk and likely automated railroad gates at driveway
Additional Treatment Options	-Install railing at curb face of sidewalk along Butler Bridge Road at base of stairs to direct pedestrians to new crosswalk -Optional landscaping in curb extensions -Additional lighting may needed to ensure crosswalk is clearly visible during hours of darkness
Considerations	• Creates a safe and ADA compliant access crossing the railroad tracks to the Waterfront area. • Relocating the vehicle access to the moorage parking area to align with intersection would make access clearer and more intuitive for visitors. • Circulation from Main Street would naturally lead to driveway which could be considered the most visible 'gateway' to the Waterfront and to Toledo. • Railroad crossing request and approval needed for proposed vehicle and pedestrian crossing, however it is crossing that is currently paved. A new vehicle crossing would be difficult to gain approval for from the rail division. Railroad advanced warning device would likely be required to ensure safety. • New intersection configuration would require northbound vehicles to slow on Butler Bridge Road to access Main Street and 2nd Avenue. • Better definition of the right-of-way, driveways, parking, and sidewalks would reduce conflicts between users and enforce proper behavior and courtesy. • Facilitates bicycles crossing of tracks at a more favorable angle. • Railroad panel must be located outside of switching zone • Should consider section of fence along westside of Butler Bridge Road to direct pedestrians to crosswalk

6. PROJECT COST ESTIMATE SUMMARY

The improvements identified in chapter 5 were divided into a series of discrete improvement projects based on basic criteria to help develop phasing and cost estimates. The following elements were considered in the development of the projects.

Community Input: Public comment and input from the Public and Technical Advisory Committee (PAC & TAC) throughout the process has provided direction to the project team.

Connectivity: The ability of each segment to provide connections to the existing/planned roadway network and community destinations.

Cost-Scale: Consider the size and corresponding cost of the improvements by segment and location to provide the best opportunity for implementation and grant funding.

Cost Estimates for the projects are summarized in Table 6-1 below, and are identified on figures in Appendix D. The cost estimates represent the following:

- Engineering/Design: Costs for design and construction supervision of project
- Construction: Cost of construction, with several elements such as drainage represented as percentage of costs. Includes a 25 percent contingency cost.
- Operation & Maintenance: A general assessment of the costs, and contributing elements, that the Port of Toledo or City of Toledo would incur on an annual basis.

A more detailed breakdown of the project cost estimates are included in Appendix F.

Table 6-1. Project Cost Estimates

Project Location: Yaquina Bay Road Sidewalk		**Reference Figure: Figure 1**
Segment	Yaquina Bay Road slough bridge to Hwy 20: sidewalk	
Cost Estimate	Engineering/Design: $19,000 Construction: $77,000 Operation & Maintenance: minimal, sweeping, signage/striping	
Project: Butler Bridge Road		**Reference Figure: Figure 1**
Segment	1st Street to existing crosswalk: fencing westside of roadway	
Cost Estimate	Engineering/Design: None Construction: $23,500 Operation & Maintenance: minimal, repair as needed	
Project: 'A' Street Sidewalk		Reference Figure: Figure 1
Segment	'A' Street west side from Hwy 20 to 1st Street	
Cost Estimate	Engineering/Design: $15,000 Construction: $78,000 Operation & Maintenance: minimal, sweeping	
Project: 'A' Street Railroad Crossing		Reference Figure: Figure 1
Segment		
Cost Estimate	Engineering/Design: $26,000 Construction: $130,000 Operation & Maintenance: minimal	
Project Location: Depot Slough Crossing		**Reference Figure: Figure 1A**
Segments	West end of Waterfront Path to Yaquina Bay Rd: bridge, path, railroad crossing, sidewalk	

Cost Estimate	Engineering/Design: $255,000 Construction: $1,020,000 Permitting & Add'l Studies: $200,000 Operation & Maintenance: moderate, fence/railing repair, signage/striping, structural monitoring
Project Location: Waterfront Path West	**Reference Figure or Map Key: Figure 1B**
Segment	Waterfront Path crossing of 1st St and west
Cost Estimate	Engineering/Design: $140,000 Construction: $554,500 Permitting & Add'l Studies: $80,000 Operation & Maintenance: moderate, fence/railing repair, signage/striping, lighting, structural monitoring
Project Location: Waterfront Path East	**Reference Figure: Figure 1 and IC**
Segments	Butler Bridge Parking Lot to 1st and 1st Street Sidewalk
Cost Estimate	Engineering/Design: $49,500 Construction: $197,500 Operation & Maintenance: minimal, vegetation, signage/striping, lighting
Project Location: NW 1st Street – West Crossing	**Reference Figure: Figure 1C**
Segments	'A' Street to Butler Bridge Road :Median and rail crossing
Cost Estimate	Engineering/Design: $99,000 Construction: $397,000 Operation & Maintenance: minimal, vegetation, signage/striping, lighting
Project Location: NW 1st Street – East Crossing	**Reference Figure: Figure 1C**
Segment	Butler Bridge Road to Main Street: Traffic revision and curb extensions
Cost Estimate	Engineering/Design: $8,500 Construction: $36,000 Operation & Maintenance: minimal, signage/striping, lighting
Project Location: Butler Bridge Road Crosswalk	**Reference Figure or Map Key: Figure 1D**
Improvement	Crosswalk and railroad pedestrian crossing
Cost Estimate	Engineering/Design: $9,000 Construction: $36,000 Operation & Maintenance: minimal, vegetation, signage/striping, lighting
Project Location: Butler Bridge Road at 2nd Street/Main Street	**Reference Figure or Map Key: Figure 1E**
Segment	Intersection realignment, curb extensions, crosswalk and railroad pedestrian crossing
Cost Estimate	Engineering/Design: $16,000 Construction: $63,500 Operation & Maintenance: minimal, vegetation, signage/striping, lighting
Project Location: Study Area	**Reference Figure: Figure 1**
Segment	Amenities and Signage
Cost Estimate	Engineering/Design: $5,000 to $20,000 Construction: $5,000 to $100,000 Operation & Maintenance: Moderate, varies with type,

Notes:

(1) These cost estimates are for planning purposes only and do not include right-of-way costs and stormwater quality control or detention structures. Cost estimates were based on 2008 bid tab data. As costs for materials and labor are expected to generally increase over time, these estimates should be updated periodically.

7. FUNDING STRATEGIES, RESOURCES AND IMPLEMENTATION

7.1 PROJECT PRIORITIZATION

Plans the size of the Toledo Waterfront Connectivity Plan are typically implemented using a combination of funding over several, and they often require a combination of private, local, and state funding and participation. A deliberate phasing and prioritization strategy is useful to effectively focus available resources, maximize funding and implementation, and meet the needs of the community, while also allowing flexibility to maximize projects completed. The following elements were considered in the development of the phasing and prioritization of the construction improvements

- Need: Based on prior plans, data collection, field observation, considerable public comment, and input from the Technical and Public Advisory Committees.
- Feasibility: Considers the size and corresponding cost of the improvements and the best opportunity for implementation and funding. Projects that do not usually require, environmental permitting, such as restriping or adding sidewalks, are easiest to implement. Easier projects were prioritized higher than projects requiring expensive or potentially controversial right-of-way acquisition.

Short-Term Improvements

Projects selected for short-term development are considered the highest priority for implementation. In addition, the projects that have the highest impact for the lowest cost. It is possible to obtain funding for these projects from the identified sources over the next five years.

The following projects were designated as short-term projects:

- Butler Bridge Road and Mains St Crosswalk
- Waterfront Path East – Moorage Parking to 1st and 1st Street Sidewalk
- Butler Bridge Road Railroad Fencing
- NW 1st Street (Butler Bridge Road to Main St: Traffic revision and curb extensions)
- NW 1st Street (‘A’ Street to Butler Bridge Road :Median and rail crossing)
- ‘A’ Street Sidewalk and Railroad Crossing
- Amenities and Signage

Medium-Term Improvements

Medium-term projects require more planning/design efforts, or maybe more expensive to construct that short-term projects. Funding for these projects from the identified sources could occur during years five thru fifteen.

The following projects were designated as medium-term critical routes:

- Butler Bridge Road & Main Street/2nd Street Intersection Realignment
- Depot Slough Bridge
- Yaquina Bay Road Sidewalk(Yaquina Bay Road slough bridge to Hwy 20)

- Waterfront Path West (Waterfront Path crossing of 1st St, boardwalk, and west path)
- Amenities and Signage

7.2 FUNDING STRATEGY

While the full and optimal implementation of the Toledo Waterfront Connectivity Plan is important to realize over time, the total cost of constructing the Plan exceeds the available funding for the project and additional funding sources need to be identified. The following scenarios highlight potential future funding situations for improvements, and outline how the City and Port of Toledo could potentially fund projects given limited funding resources.

Option 1: Low funding scenario

In the low funding scenario, it is assumed that the City and Port of Toledo will have only current sources of funds to dedicate towards seeking grants and improvements. Under this scenario, City and Port of Toledo will have staff resources to spend on seeking grant funding and identifying potential matching funds.

Public-Private partnerships opportunities can also help in the funding and implementation of programs and improvements. Under the low funding scenario, the listed projects may not be funded in total, but strategies and funding resources will be developed to leverage to complete the projects.

Option 2: Medium funding scenario

In a medium funding scenario, it is assumed that along with the current resources, the City and Port of Toledo receives additional revenue from a new funding source, such as a tax or a fee, or a small amount of transportation grant funding. These funds could be used as a match to leverage additional grant funds. Transportation grant funding should be targeted for identified short-term projects previously discussed.

Option 3: High Funding scenario

In a high funding scenario, it is assumed that along with the current funding sources, the City and Port of Toledo receives a moderate amount of grant funding as well as additional revenue from a new funding source, such as a tax or a fee. If the City and Port of Toledo received a large amount of grant funding and creates a new funding source for the Waterfront projects, all of the short-term critical routes and supporting programs should be implemented within five years, and funding sources can be identified for medium-term projects as well.

7.3 POTENTIAL FUNDING SOURCES

Acquiring funding for construction projects recommended in the Toledo Waterfront Connectivity Plan is considerably more likely if it can be leveraged with a variety of local, State, Federal and public and private sources. This section identifies potential matching and major funding sources available for the identified projects.

In addition to the regular Federal funding sources for bicycle and pedestrian projects, in February 2009 the American Recovery and Reinvestment Act, often referred to as the 'Stimulus Bill' was signed into law. The projects identified with this Plan are likely not eligible for funding opportunities associated with that Act. A table of the potential funding sources is included in Appendix G.

Federal Funding

Surface Transportation Program (STP)

The Surface Transportation Program (STP) provides States with flexible funds which may be used for a wide variety of projects on any Federal-aid Highway including the NHS, bridges on any public road, and transit facilities.

Bicycle and pedestrian improvements are eligible activities under the STP. This covers a wide variety of projects such as on-road facilities, off-road trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancillary facilities. SAFETEA-LU also specifically clarifies that the modification of sidewalks to comply with the requirements of the Americans with Disabilities Act is an eligible activity.

As an exception to the general rule described above, STP-funded bicycle and pedestrian facilities may be located on local and collector roads which are not part of the Federal-aid Highway System. In addition, bicycle-related non-construction projects, such as maps, coordinator positions, and encouragement programs, are eligible for STP funds. ODOT estimates that it will receive $419.3 million for this program through the lifetime of SAFETEA-LU.

Railway-Highway Crossing Program (RHC)

Administered by Oregon Department of Transportation (ODOT), this program is funded by a set-aside of STP funds and is designated for improvements to highway-rail grade crossings to eliminate safety hazards. Funding for this program comes out of Highway Safety Improvement Program funds. ODOT estimates that they will receive an average of $3.1 million annually for this program through the lifetime of SAFETEA -LU.

Transportation Enhancements (TE)

Administered by Oregon Department of Transportation (ODOT), this program is funded by a set-aside of STP funds. Projects must serve a transportation need. These funds can be used to build a variety of pedestrian, bicycle, streetscape and other improvements that enhance the cultural, aesthetic, or environmental value of transportation systems. The statewide grant process is competitive.

- Pedestrian and Bicycle Projects
- Historic Preservation related to surface transportation
- Landscaping and Scenic Beautification
- Environmental Mitigation (hwy runoff and wildlife protection only)

Transportation Enhancement or "TE" projects are selected through a competitive process. The funds are provided through reimbursement, not grants. Participation requires matching funds from the project sponsor, at a minimum of 10.27%. Applications are accepted only from public agencies. Private organizations may apply in partnership with a local, state or federal agency, or Indian tribe. All projects must have a direct relationship to surface transportation.

Recreational Trails Program (RTP)

The Recreational Trails Program of the Federal Transportation Bill provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized as well as motorized uses. These funds are

available for both paved and unpaved trails, but may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads. The project sponsors provide at least a 20% match, which can be in the form of cash, force account labor, equipment, materials, volunteer labor, donated equipment, donated materials, and federal, state and local grants, or the combination thereof.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails;
- Purchase and lease of trail construction and maintenance equipment;
- Construction of new trails; including unpaved trails
- Acquisition of easements or property for trails;
- State administrative costs related to this program (limited to seven percent of a State's funds); and
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds).

Rivers, Trails and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Parks Service program which provides technical assistance via direct staff involvement, to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based upon criteria that include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation and focusing on lasting accomplishments.

H.R. 1, The American Recovery and Reinvestment Act of 2009

The *American Recovery and Reinvestment Act* is commonly referred to as the 'Stimulus Bill' and was signed into law on February 13, 2009. The Act provides $64.1 billion for transportation and infrastructure investment, "to enhance the safety, security and efficiency of our highway, transit, rail, aviation, environmental, inland waterways, public buildings and maritime transportation infrastructure."

Oregon will receive almost $334 million for highways and bridges,[8] and ODOT will receive $224 million. In addition, 30 percent of the funding, or $100 million, will be suballocated to local governments according to the Surface Transportation Program formula. ODOT will also set aside $5 million for jurisdictions that do not receive STP allocations.

Local governments can use highway program funds for projects eligible for Surface Transportation Program funds, including bicycle and pedestrian infrastructure. In addition, three percent or $10 million of the highway program funds are allocated to Transportation Enhancements (TE), including bicycle and pedestrian infrastructure. These funds will be administered through the TE committee, and will go through TE or similar grant processes.

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[8] http://transportation.house.gov/Media/file/Full%20Committee/Stimulus/Total%20Infrastructure%20Investment%20Funding_Single%20Table.pdf

Funding retained by the state through the *American Recovery and Reinvestment Act* must be obligated to projects within 120 days of apportionment (which is within 21 days of enactment). The remainder must be obligated within one year, or will be redistributed.

State Funding Sources

Bicycle and Pedestrian Program Grants

The Pedestrian and Bicycle Grant Program is a competitive grant program that provides approximately $5 million every two years to Oregon cities, counties and ODOT regional and district offices for design and construction of pedestrian and bicycle facilities. Proposed facilities must be within public rights-of-way. Grants are awarded by the Oregon Bicycle and Pedestrian Advisory Committee.

Measure 66 Funds – Oregon State Lottery

Passed in 1998, Measure 66 Funds are coordinated by Oregon State Parks. The funds can be used for trail right-of-way acquisition and construction. "15% of the net proceeds from the State Lottery shall be deposited in a parks and natural resources fund created by the Legislative Assembly. Of the moneys in the parks and natural resources fund, 50% shall be distributed for the public purpose of financing the protection, repair, operation, and creation of state parks, ocean shore and public beach access areas, historic sites and recreation areas," with recreation areas including trails.

The Measure raises approximately between $35 - $45 million per year, of which half is dedicated to parks Oregon Parks and Recreation Department. Yearly grants are offered by OPRD through Local Government Grants Program.

Project funding depends on the amount of money available and the project's standing on the small or large project priority list.

Small grants – projects with a maximum $50,000 grant request. Ten percent (10%) of funds are available for these projects.

Large Grant Requests - Other than for land acquisitions, projects with a maximum $750,000 grant request. A Project Sponsor may request up to $1,000,000 for land acquisition projects.

Heritage Grant Program

The Oregon Heritage Commission also administers the Heritage Grant Program, which provides matching grants for a wide range of heritage-related projects by local, regional, or statewide groups. There is currently $200,000 per biennium in this program.

Land and Water Conservation Fund (LWCF)

Land and Water Conservation Fund is a federally funded program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. Funds can be used for ROW acquisition and construction. These funds are administered by the Oregon Parks and Recreation Department.

LWCF grants are available to either acquire land for public outdoor recreation or to develop basic outdoor recreation facilities.

Acquisition – Acquiring land and water for public access, including new area or additions to existing parks, forests, wildlife areas, beaches or similar.

Development – Developing outdoor recreation activities and support facilities needed by the public for recreation activities, including providing basic facilities and improvement of basic facilities.

Projects must be consistent with the outdoor recreation goals and objectives stated in the Statewide Comprehensive Outdoor Recreation Plan (SCORP) and elements of your local comprehensive land use plans and park master plans. Projects must also comply with the Rehabilitation Act and the Americans with Disabilities Act.

The Oregon Watershed Enhancement Board (OWEB)

The Grant Program at OWEB manages how project applications are processed, reviewed, and recommended for funding to the OWEB Board, and how grants are tracked during their implementation. There are five general categories of projects eligible for OWEB funding.

- On-the-ground watershed management (restoration, small grants and acquisitions)
- Assessment and/or monitoring of natural resource conditions
- Opportunities for learning about watershed concepts (education/outreach)
- Watershed Council Support
- Technical Assistance

State Administered CDBG

The Federal program also provides each state the opportunity to administer CDBG funds for non-entitlement areas. Non-entitlement areas include those units of general local government which do not receive CDBG funds directly from HUD as part of the entitlement program (Entitlement Cities and Urban Counties). Non-entitlement areas are cities with populations of less than 50,000 (except cities that are designated principal cities of Metropolitan Statistical Areas), and counties with populations of less than 200,000. Community Development Block Grant Grantees may "use Community Development Block Grants funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities, paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grants funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs." The program priorities are established by the State.

Bicyclist Safety Mini-Grant Program

The Community Cycling Center Bicyclist Mini-Grant Program provides funding to public agencies and non-profit 501(c)(3) organizations to promote the safety of bicyclists in Oregon. Funding is available statewide through a grant to the Community Cycling Center from ODOT's Transportation Safety Division.

Funding is available for projects targeting youth and/or adults, with a focus on projects that incorporate a strong educational element, especially in communities that do not currently have access to bike safety education resources. For communities that currently do have access to these resources, innovative and creative project proposals are highly encouraged. Applicants may apply for grants between $800 and $5,000.

Pedestrian Safety Mini-Grant Program

Administered by Oregon's Bicycle Transportation Alliance and the Willamette Pedestrian Coalition, the Pedestrian Safety Mini-Grant Program is funded through ODOT's Traffic Safety Division. The program provides funds to police departments around the state to stage crosswalk enforcement actions against motorists who fail to yield to pedestrians. In these operations, a decoy police officer attempts to cross a street at an intersection or marked crosswalk (crosswalk laws apply to unmarked crosswalks as well). If passing motorists fail to stop and yield for the pedestrian, they are issued either a warning or a citation. The operations include a media outreach component, with the purpose of raising awareness around motorists' responsibility toward pedestrians. Grant funds may also be used to offer diversion classes that violators can take in lieu of paying tickets. Applicants may apply for grants up to $5,000.

Local Funding Sources

There are a number of funding sources that Toledo can use for transportation and other improvements. Current city revenues are constrained, obligated to specific projects, or otherwise committed. Re-evaluation of current funds and projects may be warranted in addition to seeking outside funding sources, low cost solutions, or 'piggy backing' on other projects to fund improvements.

System Development Charges (SDCs)/Developer Impact Fees

The collection SDCs for improvements to the transportation system based on development is entirely dependent upon the level of new development. Projects associated with areas that will develop in the future, may be funded in part with SDCs.

Developer impact fees are similar to SDC's and are typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may reduce the number of trips (and hence impacts and cost) by paying for on- or off-site pedestrian improvements that will encourage residents to walk or use transit rather than drive. In-lieu parking fees may be used to help construct new or improved pedestrian facilities. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical in avoiding a potential lawsuit.

Local Property Tax Levies/Street Bonds

This method is typically used to fund road improvements that will benefit an entire community. General obligation bonds are supported by a property tax levy on assessed value of property. This method requires voter approval of bond issues and, because of the high costs of bond underwriting, is not usually viable for funding single projects that cost less than $1,000,000.

Local Improvement Districts (LIDs)

LIDs levy special assessment charges on property owners within a defined area such as a neighborhood, street frontage or industrial/commercial district, with each property assessed a portion of total project cost. LIDs are commonly used for street paving, drainage, parking facilities and sewer lines. The justification for such levies is that many of these public works improvements provide a direct benefit or enhancement to the value of nearby land, thereby providing direct financial benefits to its owners. LIDs are typically used for local street projects that cannot be funded through other means. State law and city code govern the formation of LIDs, the assessment methodology, and other factors. LIDs are usually funded by the participants, but may also be combined with other funding sources to leverage all available resources. LIDs can be initiated by property owners or the City, and the collected

funds are commonly used to repay debt on bonds incurred to undertake the infrastructure improvements. These bonds are guaranteed by payments from the affected properties through a property lien that sunsets when the LID share is paid off. LIDs typically require at least 51 percent of the affected properties to approve the LID. Costs can be determined based on road frontage or square footage.

Other Local Sources

Residents and other community members are excellent resources for garnering support and enthusiasm for a bicycle and pedestrian facility, and the City should work with volunteers to substantially reduce implementation and maintenance costs. Local schools, community groups, or a group of dedicated neighbors may use the project as a project for the year, possibly working with a local designer or engineer. Work parties can be formed to help clear the right-of-way for a new path or maintain existing facilities where needed. A local construction company could donate or discount services. Other opportunities for implementation will appear over time, such as grants and private funds. The City should look to its residents for additional funding ideas to expedite completion of the improvements.

There is increasing corporate and business involvement in community projects. Employers recognize that creating places to bike and walk is one way to build community and attract a quality work force. Outdoor recreation businesses often support local projects and programs. Some examples include:

- In Arizona, trail directional and interpretive signs are being provided by the Salt River Project — a local utility. Other corporate sponsors of the Arizona Trail are the Hughes Missile Systems, BHP Cooper, and Pace American, Inc.
- Recreational Equipment, Inc.(REI) has long been a financial supporter of local trail and conservation projects.
- In Evansville, Indiana, a boardwalk is being built with corporate donations from Indiana Power and Light Co. and the Wal-Mart Foundation.

Community fundraising and creative partnerships are plentiful. A common approach is to find creative ways to break a large project into small pieces that can be "purchased" by the public. Some examples include:

- In Jackson County, Oregon they had a "Yard Sale." The Bear Creek Greenway Foundation sold symbolic "yards" of the trail and placed donor's names on permanent markers that are located at each trailhead. At $40 a yard, they raised enough in private cash donations to help match their $690,000 Transportation Enhancements program award for the 18-mile Bear Creek trail linking Medford, Talent, Phoenix and Ashland.
- Selling bricks for local sidewalk projects, especially those in historic areas or on downtown Main Streets, is increasingly common. Donor names are engraved in each brick, and a tremendous amount of publicity and community support is purchased along with basic construction materials. Portland, Oregon's downtown Pioneer Square is a good example of such a project.

Regional and Non-Traditional Funding Sources

American Greenways Program

Administered by The Conservation Fund, the American Greenways Program provides funding for the planning and design of greenways. Applications for funds can be made by local regional or state-wide non-profit organizations and public agencies. The maximum award is $2,500, but most range from $500 to $1,500. American Greenways Program monies may be used to fund unpaved trail development.

Bikes Belong Grants Program

The Bikes Belong Grants Program strives to put more people on bicycles more often by funding important and influential projects that leverage federal funding and build momentum for bicycling in communities across the U.S. These projects include bike paths, lanes, and routes, as well as bike parks, mountain bike trails, BMX facilities, and large-scale bicycle advocacy initiatives. Since 1999, Bikes Belong has awarded 186 grants to municipalities and grassroots groups in 45 states and the District of Columbia, investing nearly $1.5 million in community bicycling projects and leveraging close to $500 million in federal, state, and private funding.

7.4 IMPLEMENTATION

Several elements of the Waterfront Connectivity Plan require amendments to City Transportation System Plan for implementation. The state Transportation Planning Rule (TPR) requires cities to adopt policies and land use regulations for implementing the TSP as provided for in OAR 660-12-045. A review of Toledo's development code and Comprehensive Plan has been completed no changes and additions are necessary to implement the Waterfront Connectivity Plan at this time. A draft of the proposed additions to the Toledo TSP are included in Appendix H.

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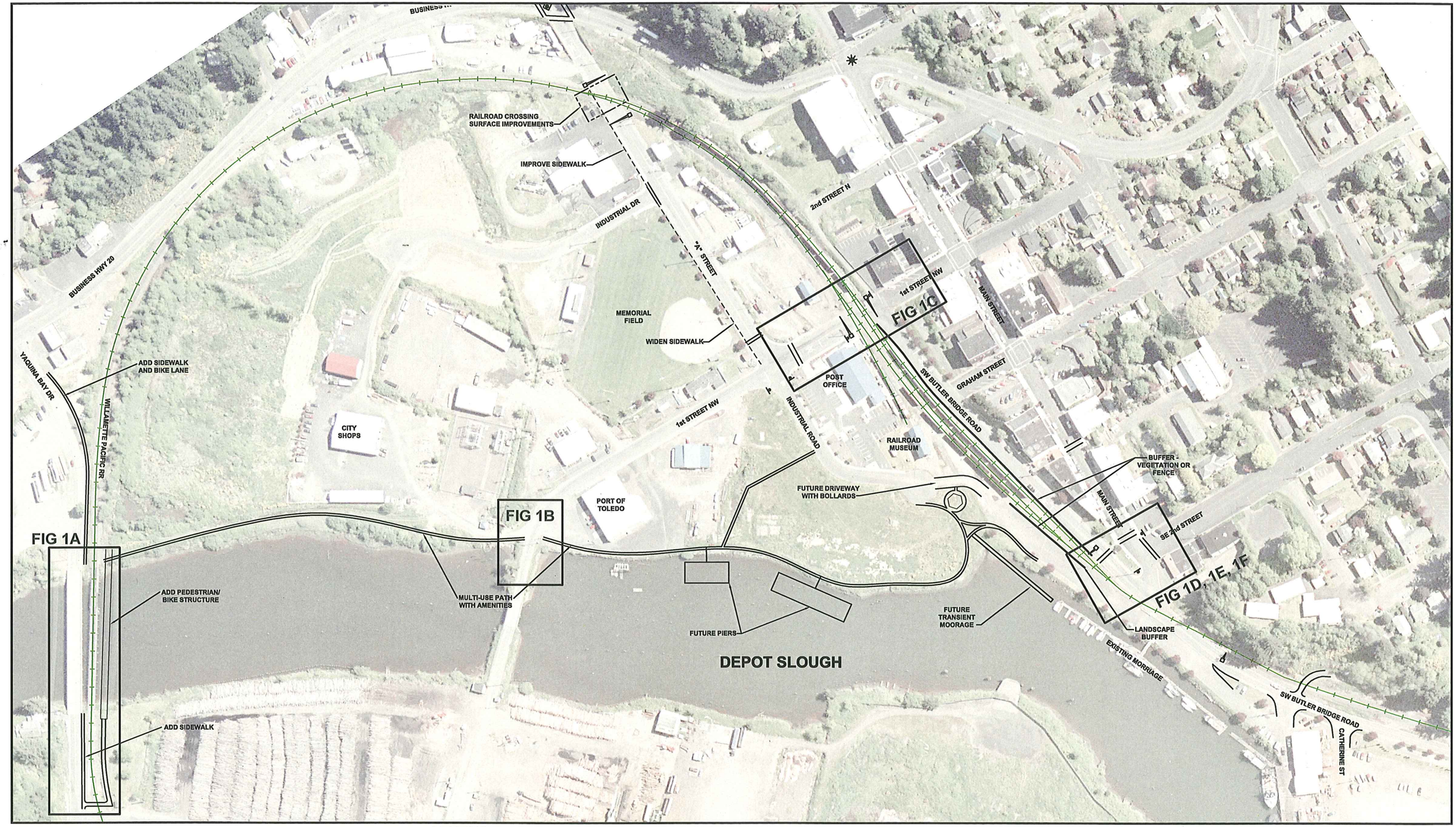
APPENDIX D

Improvement Figures



DATE: Dec 01, 2009 FILE: PO2395051P11F-01

N

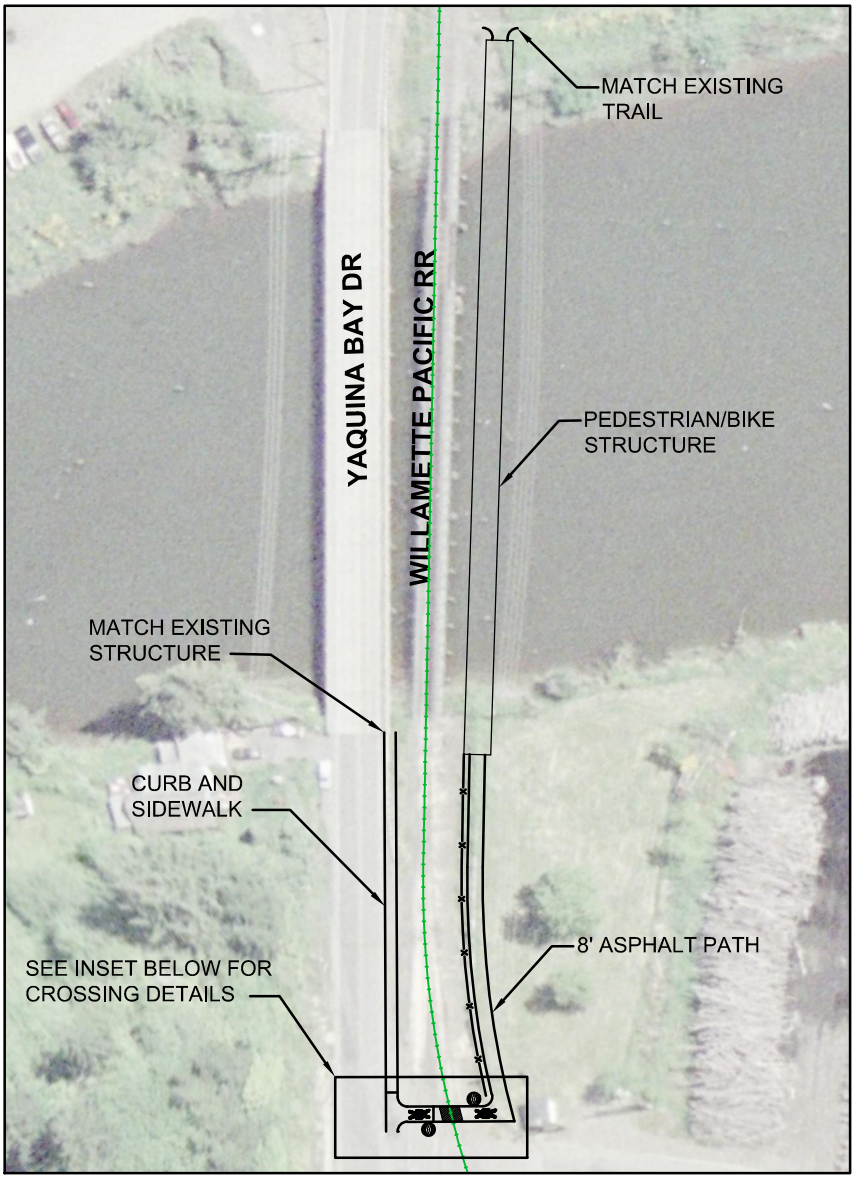
0 200'

APPROXIMATE SCALE

LEGEND

- CROSSWALK
- STOP SIGN
- RAIL ROAD CROSSING
- TRAFFIC CONTROL LIGHT
- TRAFFIC SIGNAL LIGHT
- RAILROAD TRACK

Toledo Waterfront Conectivity Plan
Figure 1
Proposed Conceptual Improvement Plan

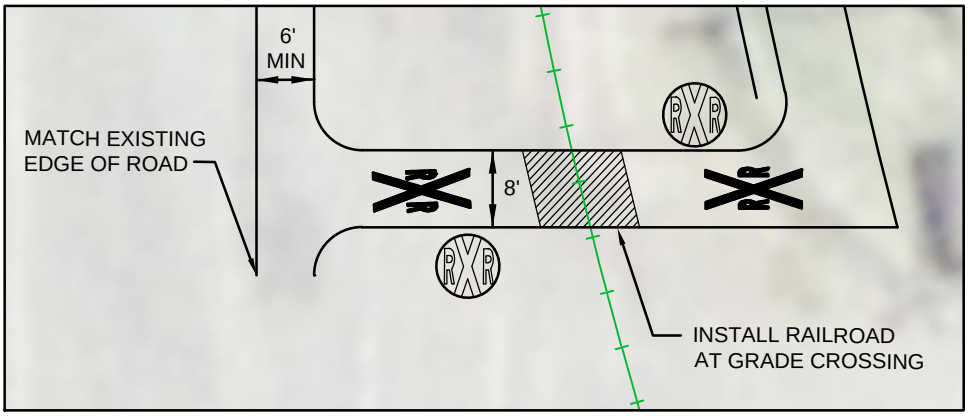


LEGEND

RAILROAD CROSSING WARNING SIGNAL

RAILROAD CROSSING PVEMENT MARKING

FENCE

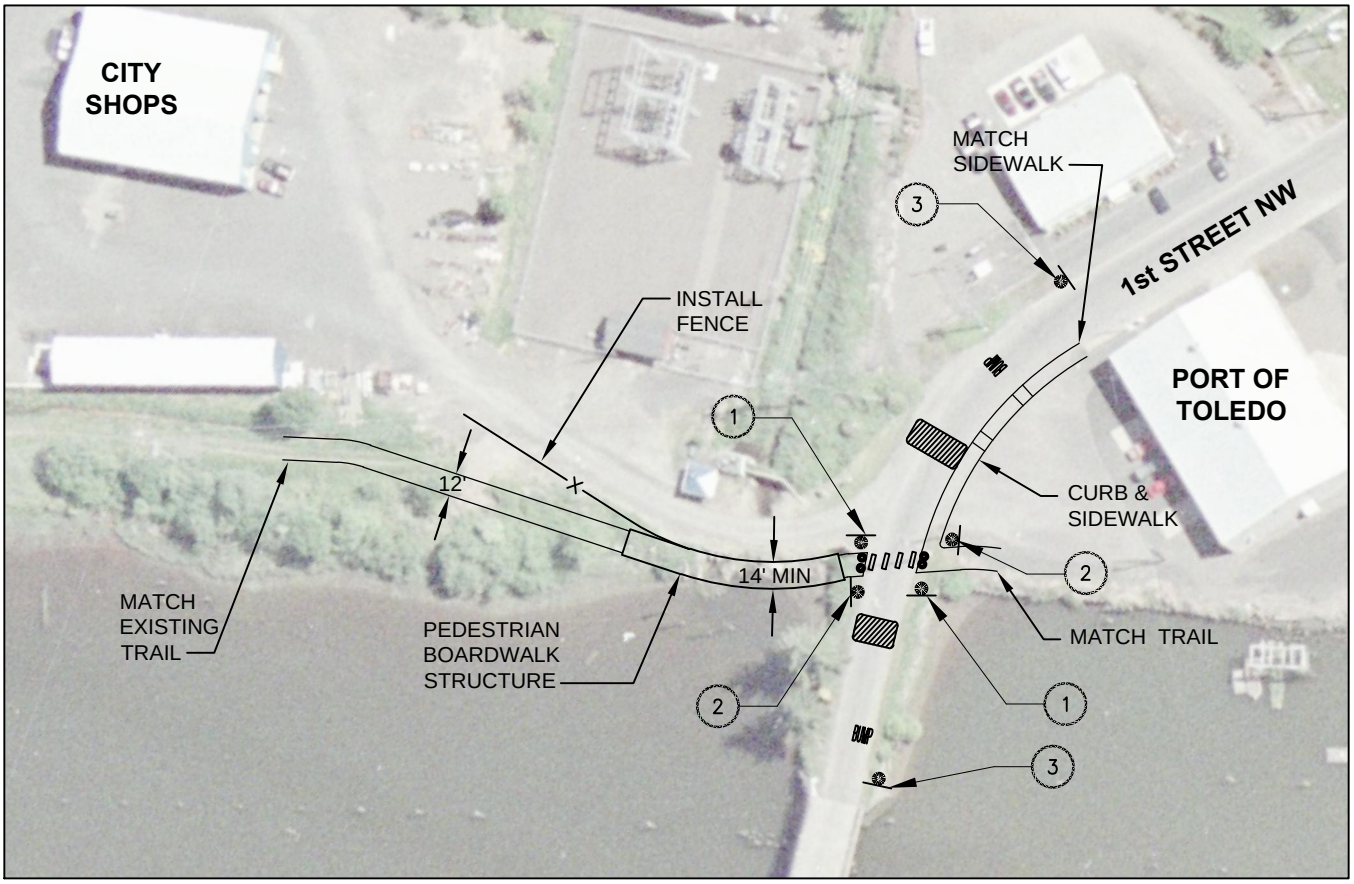


CROSSING DETAILS

DATE: Jun 22, 2009 FILE: PO2395051P11F-16

N

Toledo Waterfront Connectivity Plan
Figure 1A
Proposed Conceptual Improvement Plan



BOARDWALK EXAMPLE

LEGEND

- CROSSWALK
- SIGN
- BOLLARD
- SPEED BUMP

SIGN LEGEND

1

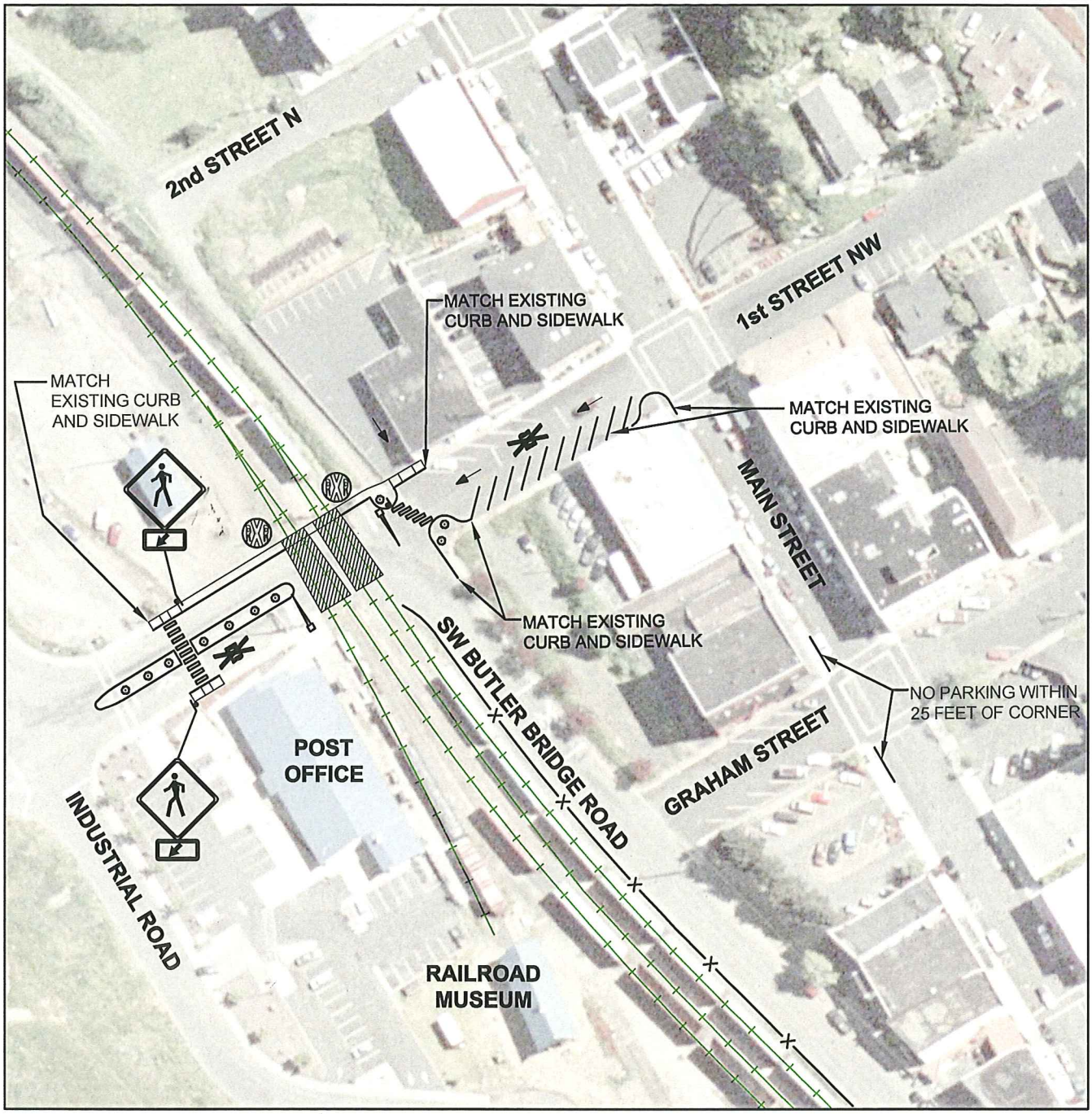
2

3

DATE: Jun 22, 2009 FILE: PO2395051P11F-13

N

Toledo Waterfront Connectivity Plan
Figure IB
Proposed Conceptual Improvement Plan



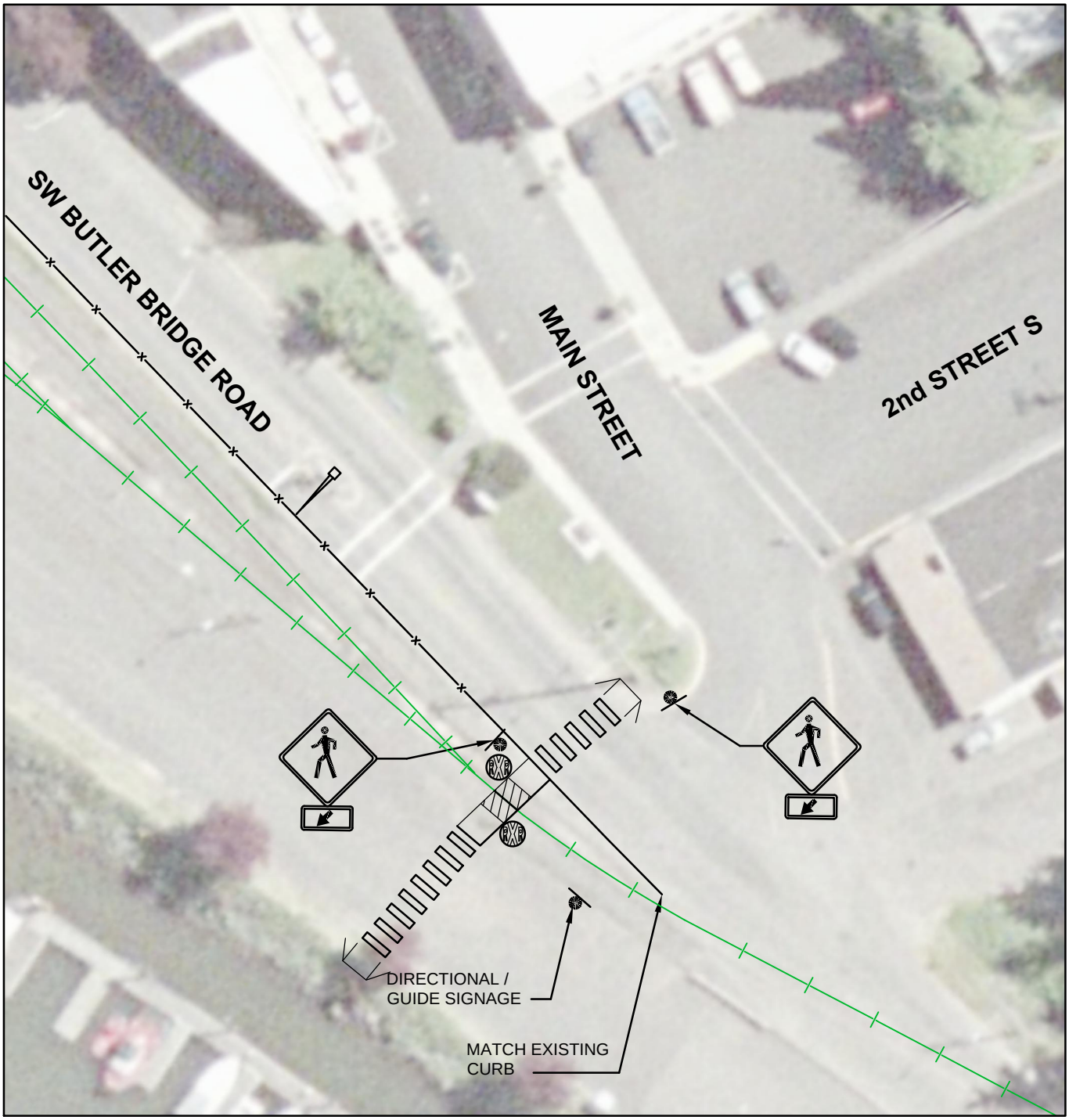
LEGEND

- CROSSWALK
- STOP SIGN
- RAIL ROAD CROSSING
- AT-GRADE RAIL ROAD CROSSING
- RAILROAD CROSSING WARNING SIGNS
- POST AND CABLE BARRIER OR FENCE

DATE: Dec 01, 2009 FILE: PO2395051P11F-08

N

Toledo Waterfront Connectivity Plan
Figure 1C
Proposed Conceptual Improvement Plan



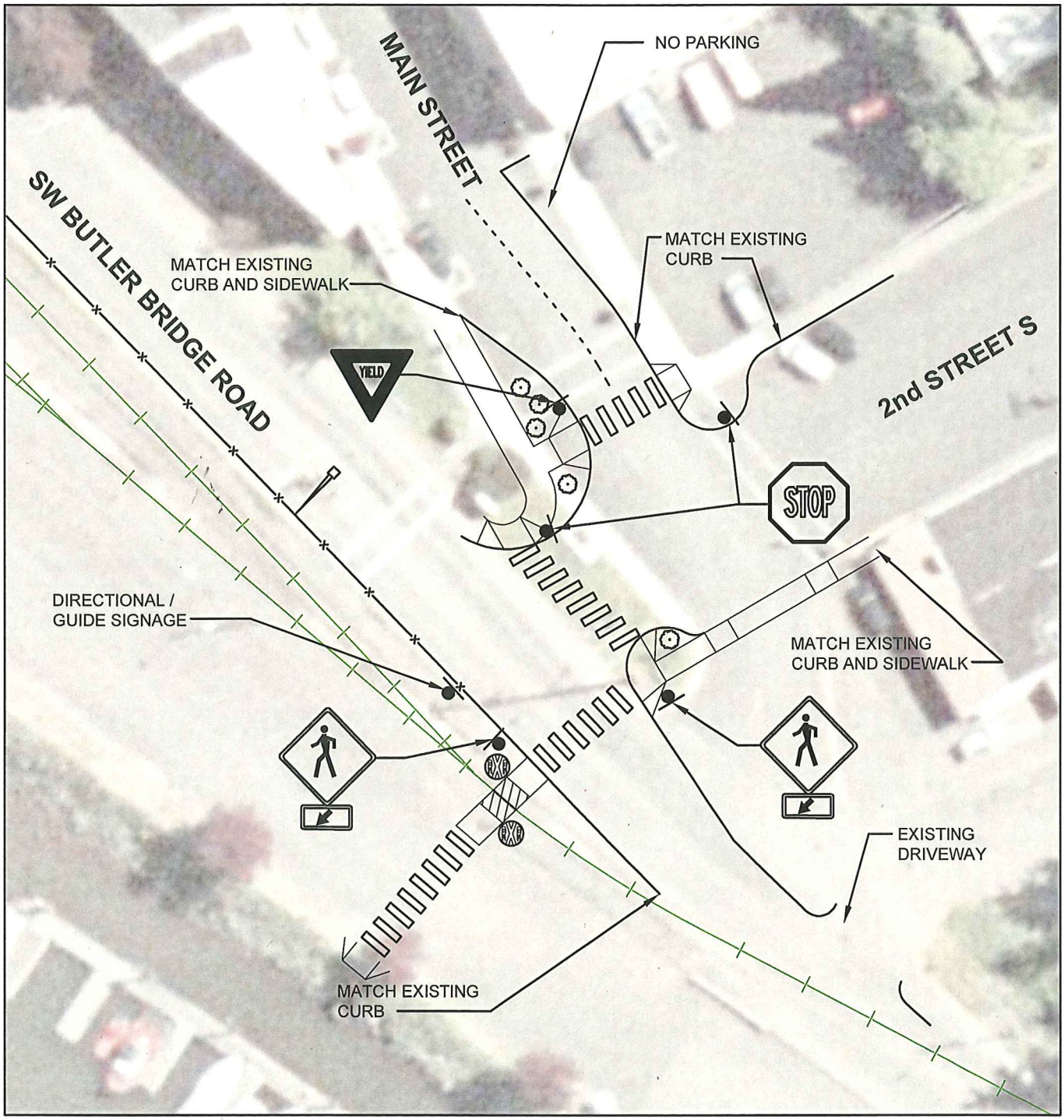
LEGEND

- CROSSWALK
- SIGN
- RAIL ROAD CROSSING
- AT-GRADE RAIL ROAD CROSSING
- RAILROAD CROSSING WARNING SIGNS
- FENCE

DATE: Jun 22, 2009 FILE: PO2395051P11F-14

N

Toledo Waterfront Connectivity Plan
Figure 1D
Proposed Conceptual Improvement Plan
Option 2



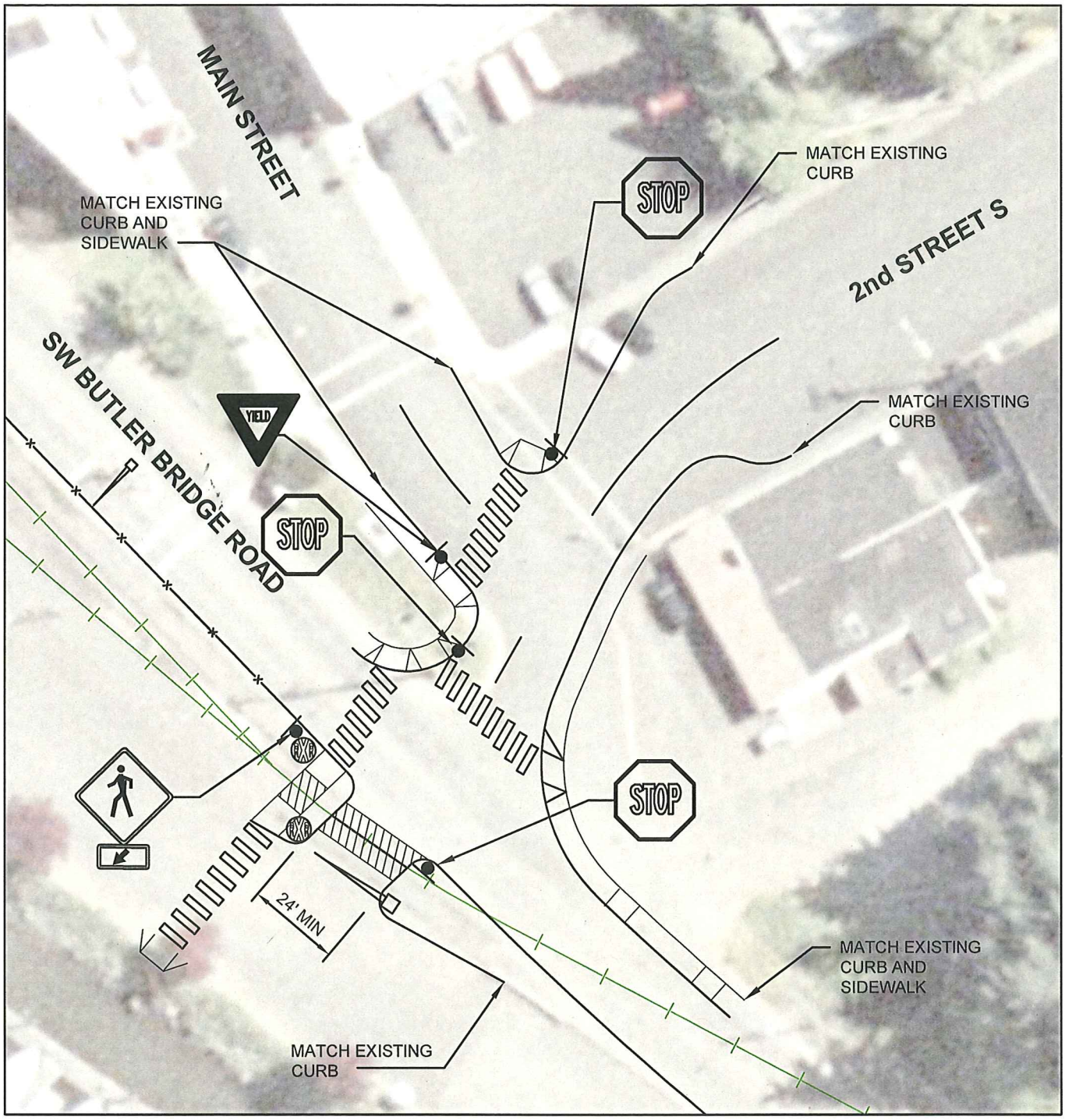
LEGEND

- CROSSWALK
- SIGN
- RAIL ROAD CROSSING
- AT-GRADE RAIL ROAD CROSSING
- RAILROAD CROSSING WARNING SIGNS
- FENCE

DATE: Dec 01, 2009 FILE: PO2395051P11F-10

N

Toledo Waterfront Connectivity Plan
Figure 1E
Proposed Conceptual Improvement Plan
Option 1



LEGEND

- CROSSWALK
- SIGN
- RAIL ROAD CROSSING
- AT-GRADE RAIL ROAD CROSSING
- RAILROAD CROSSING WARNING SIGNS
- FENCE

DATE: Dec 01, 2009 FILE: PO2395051P11F-15

N

Toledo Waterfront Connectivity Plan
Figure 1F
Proposed Conceptual Improvement Plan
Option 3