

# CHINDEN BOULEVARD CORRIDOR PROJECT DEVELOPMENT

Garden City, Idaho

September 2016

Prepared for:

## COMPASS

700 NE 2nd Street, #200  
Meridian, Idaho 83642  
208.855.2558

## City of Garden City

6015 North Glenwood Street  
Garden City, Idaho 83714  
208.472.2900

Prepared by:

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## Idaho Transportation Department, District 3

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Garden City, Idaho 83714  
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## Ada County

200 West Front Street  
Boise, Idaho 83702  
(208) 287-7080



**KITTELSON & ASSOCIATES, INC.**  
TRANSPORTATION ENGINEERING/PLANNING

MOVING **FORWARD** THINKING™

## Project Report

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Project No. 18833.0

September 2016



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- Appendix B Project Funding Processes and Criteria
- Appendix C Project Bundle Cost Estimates
- Appendix D Environmental Scan Documents
- Appendix E 43<sup>rd</sup> Street Crossing Analysis and ANSER Charter School Support E-mail

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Section 1  
Executive Summary

## EXECUTIVE SUMMARY

The Bike and Pedestrian Assessment Report for Chinden Boulevard was completed in May 2015 by the Federal Highway Administration (FHWA) in partnership with several agencies, including the Ada County Highway District (ACHD), Community Planning Association of Southwest Idaho (COMPASS), Garden City, Idaho Transportation Department (ITD), and Valley Regional Transit (VRT). The purpose of the assessment was to identify common barriers and issues that affect the mobility and safety of people walking and biking on Chinden Boulevard from its eastern terminus to Coffey Street. The completed report resulted in a number of recommended action items to improve walking and biking on Chinden Boulevard.

Garden City has leveraged funding and support from the COMPASS Project Development Program to continue moving forward with recommended action items from the FHWA report. This project has developed logical project bundles out of the action items from the FHWA report, prioritized the project bundles, and developed the four highest ranked bundles into more clearly defined project scopes over the course of two phases. These project bundles address immediate concerns to walking and bicycling mobility while working towards Garden City's long-term vision for the corridor.

The following four bundles were developed into more clearly defined project scopes:

- Glenwood to Kent – Pathway along Lady Bird Park; connecting the bus stops to the Kent Lane intersection
- Kent to 50<sup>th</sup> – Walkway along the north side of Chinden Boulevard
- 50<sup>th</sup> to 43<sup>rd</sup> – Walkway along the north side of Chinden Boulevard
- Pedestrian crossing at 43<sup>rd</sup> Street

The locations of these bundles are shown in Figure EX-1. These projects were selected in part because they were recommended in the FHWA report, but had not been assigned to a single lead agency and require collaboration between multiple agencies. The goal of the project development program is to assess the feasibility of projects and implement short term successes. These projects address immediate concerns while working toward Garden City's long term vision for the corridor. If implemented, these projects will improve the walking network on the north side of Chinden Boulevard from the Glenwood Street to the eastern end of Chinden Boulevard.





**Phase II Project Bundles  
Garden City, Idaho**

Figure  
**EX-1**

Section 2  
Introduction

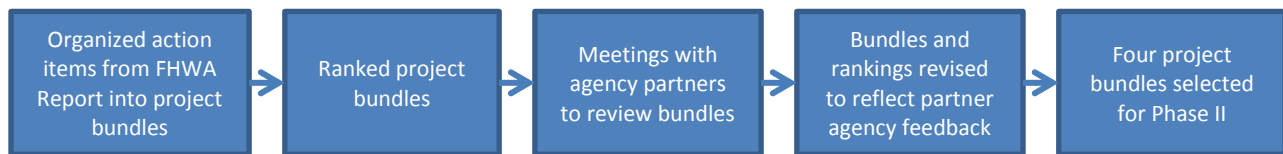
## INTRODUCTION

The Bike and Pedestrian Assessment Report for Chinden Boulevard was completed in May 2015 by the Federal Highway Administration (FHWA) in partnership with several agencies, including the Ada County Highway District (ACHD), Community Planning Association of Southwest Idaho (COMPASS), Garden City, Idaho Transportation Department (ITD), and Valley Regional Transit (VRT). The purpose of the assessment was to identify common barriers and issues that affect the mobility and safety of people walking and biking on Chinden Boulevard from its eastern terminus to Coffey Street. The completed report resulted in a number of recommended action items to improve walking and biking on Chinden Boulevard.

Garden City has now leveraged funding and support from the COMPASS Project Development Program in order to continue moving forward with implementing action items from the FHWA report. This project has developed logical project bundles out of the action items from the FHWA report, prioritized the project bundles, and developed the four highest ranked bundles into more clearly defined project scopes over the course of two phases. This report summarizes this process and provides individual concept reports for each of the four project bundles selected for development.

### PHASE I: PROJECT BUNDLING AND RANKING

The goal of the first phase of the project was to identify the project bundles that would move forward into the second phase for further development. The processes used to group and rank the FHWA report's action items are described in Figure 1.



**Figure 1 – Phase I Process Summary**

The first step in the Phase I process involved organizing the individual action items from the FHWA report into logical “project bundles.” The projects were grouped primarily based on geographic location, since most of the individual FHWA recommendations applied to specific intersections or roadway segments. Several corridor-wide recommendations were applied across multiple relevant location-specific projects, while others were grouped into corridor-wide project bundles. Figure 2 summarizes the location of the project bundles.

The Phase I bundles were then ranked based on technical criteria. Project team members reviewed the project bundles and their associated rankings, and selected the following four bundles to move forward for further development in Phase II of the project:



- Glenwood to Kent – Pathway along Lady Bird Park; connecting the bus stops to the Kent Lane intersection
- Kent to 50<sup>th</sup> – Walkway along the north side of Chinden Boulevard
- 50<sup>th</sup> to 43<sup>rd</sup> – Walkway along the north side of Chinden Boulevard
- Pedestrian crossing at 43<sup>rd</sup> Street

The locations of these bundles are shown in Figure 3. These projects were selected in part because they were recommended in the FHWA report, but had not been assigned to a single lead agency and require collaboration between multiple agencies. The goal of the project development program is to assess the feasibility of projects and implement short term successes. These projects address immediate concerns while working toward Garden City’s long term vision for the corridor. If implemented, these projects will complete the sidewalk network from the eastern terminus of Chinden Boulevard to Glenwood Street. More details on the Phase I process and the project bundles can be found in Appendix A.

## PHASE II: HIGH-PRIORITY PROJECT BUNDLE EVALUATION

The second phase of the project involved preparing more detailed concept reports for the four bundles listed above. The project assessment process and potential funding sources reviewed for the Phase II bundles are described below.

### Project Assessment Process

A concept report was prepared for each project, including the following items:

- Recommended Treatment, including plan view concept drawings (10% level) over an aerial (*Glenwood to Kent, Kent to 50<sup>th</sup>, and 50<sup>th</sup> to 43<sup>rd</sup>*) or a 3-D rendering of the concept (*Pedestrian crossing at 43<sup>rd</sup> Street bundle*).
- Planning Level Cost-Estimate
- Potential Funding Sources
- Environmental Scan
- Implementation Process
- Future Considerations



Phase II Project Bundles  
Garden City, Idaho

Figure  
3

## Potential Funding Sources

Several potential funding sources were reviewed for the four project bundles. The potentially applicable funding sources are described below. Information regarding their applicability to each specific project is included in each project's concept report. More information regarding the application process for each source can be found in Appendix B. Additional funding sources that were reviewed, but deemed inapplicable to the four project bundles, are also included in Appendix B.

### ***Transportation Alternatives Program***

The Transportation Alternatives Program (TAP) allocates federal funding from the Surface Transportation Block Grant Program (STBGP) to program projects for pedestrians, bicyclists, and other non-motorized forms of transportation (1). Projects that are eligible for TAP funds include on- and off-road bicycle and pedestrian facilities, and infrastructure projects for improving non-driver access to public transportation. Project applicants can apply for TAP funding at the statewide or local level (Boise Urbanized Area). Statewide TAP funding is programmed by ITD, while local TAP funding (TAP-TMA) is programmed by COMPASS. Both design and construction costs are eligible for funding through the TAP-Statewide program.

The application process and selection criteria for TAP-Statewide and TAP-TMA funding vary. TAP-Statewide funding does not require local prioritization, and is allocated based on demonstrated project need, benefits, and feasibility. TAP-TMA funding is allocated based on how well proposed projects align with the vision, goals and strategies of COMPASS' Communities in Motion 2040 Vision, the regional long range transportation plan for Ada and Canyon Counties (2).

### ***Recreational Trails Program***

The Recreational Trails Program (RTP) distributes federal funds for recreational trails and trail-related projects (3). Eligible projects include the construction of new recreational trails included or referenced in a Statewide Comprehensive Outdoor Recreation Plan required by the Land and Water Conservation Fund Act. RTP funding is administered by the Idaho Department of Parks and Recreation (IDPR).

### ***ADA Curb Ramp Program***

The ADA Curb Ramp Program provides funding to projects that provide accessible curb ramps on the state highway system (4). Eligible projects include the construction of new curb ramps or the alteration of existing curb ramps on state highways to meet the requirements of the Americans with Disabilities Act. Proposed ADA Curb Ramp projects are evaluated and administered by the Idaho Transportation Department (ITD).

### ***Highway Safety Improvement Program***

The Highway Safety Improvement Program (HSIP) distributes federal funds to projects that will reduce fatal and serious injury crashes on Idaho roads (5). Eligible projects include intersection safety

improvements, such as the installation of traffic control and similar warning devices at locations with high crashes, new pavement marking and sign installation at pedestrian-bicycle crossings, and school zone safety improvements. HSIP funding is administered by the Idaho Transportation Department (ITD) and the Local Highway Technical Assistance Council (LHTAC), with LHTAC administering funding for local road projects.

### ***Public Transportation Program***

The Public Transportation Program allocates funding from the Federal Transit Agency (FTA) to public transportation projects, including projects designed to replace or construct bus-related facilities (6). Proposed public transportation projects in the Boise Urbanized Area are evaluated by both VRT and COMPASS, and distributed by VRT. FTA funds for Public Transportation Programs are limited, so the application process is competitive.

### ***Communities in Motion Implementation Grants***

COMPASS distributes annual Communities in Motion Implementation Grants to projects that help achieve key goals of the Communities in Motion 2040 vision, the regional long range transportation plan for Ada and Canyon Counties (7). Eligible projects for Communities in Motion (CIM) Implementation grants include projects that provide better access to public transportation, bicycle, and pedestrian facilities to offset congestion. CIM Implementation Grants can be used as matching funds for other grants or may be paired with local money to complete a project.

### ***ACHD Community Programs***

ACHD distributes annual Community Programs funds to projects related to walking and biking in Ada County (8). Eligible projects for Community Programs funds include new curb ramps and repairs, asphalt pathways, sidewalks and pedestrian signage, signals, and speed zone flashers. Projects on school walking and biking routes typically receive the highest priority. ACHD Community Programs usually funds projects on the local road system operated by ACHD. However, they could be used to fund crossings of, or walkways along, Chinden Boulevard. Using these funds on a State highway would require approval of the ACHD Commission.

### ***TIGER Discretionary Grant Program***

US Department of Transportation (USDOT) distributes annual Transportation Investment Generating Economic Recovery (TIGER) Discretionary funds to multimodal projects across the United States (9). Eligible projects for TIGER funds include planning, road, transit, and bicycle and pedestrian projects. The minimum total project cost of TIGER grant projects is \$6.25 million, limiting the funding eligibility of the individual project bundles detailed in this report. However, TIGER grant applications can contain more than one project component, as long as the components demonstrate a strong relationship between them. Therefore, this program could be a potential funding source for a large set of projects on Chinden Boulevard (i.e., implanting Garden City's long-term vision for the corridor, including detached sidewalks



and landscaping through city limits). This program is competitive, with only 40 of the 585 applications being funded in 2016.

Section 3  
Glenwood to Kent

## GLENWOOD TO KENT

The Glenwood to Kent project is focused on providing a shared-use path on the north side of Chinden Boulevard and improving access to the Valley Regional Transit (VRT) bus stop located in the southwest corner of the Chinden Boulevard/Kent Lane intersection. Figure 1Figure 4 illustrates the site vicinity for this project bundle. When completed, this project will provide improved access for people walking, biking, and taking transit to reach several commercial destinations, including one of Garden City’s two grocery stores (Fred Meyer, located at Kent Lane). The north side pathway will connect to the existing sidewalks and pathway along Glenwood Street, providing connections to the West Bench of Boise, several commercial and civic (i.e., Garden City Hall and Library) uses along Glenwood Street, and the Greenbelt.



Figure 4 – Glenwood to Kent – Site Vicinity

A project prospectus sheet summarizing this project is included in the next page, while more details regarding the project are provided in the following sections.

## GLENWOOD TO KENT – PATHWAY ALONG LADY BIRD PARK; CONNECTING THE BUS STOPS TO THE KENT LANE INTERSECTION

**Description:**

- 1) Construct a shared-use path along the north side of Chinden Boulevard, either through Lady Bird Park or adjacent to Chinden Boulevard
- 2) Relocate the existing VRT bus stop on the south side of Chinden Boulevard to the far side of the Kent Lane intersection.

**Purpose:**

Improve access for people walking, biking, and taking transit to reach several commercial, civic, and recreational destinations by connecting to the Fred Meyer site and the existing sidewalks and pathway along Glenwood Street. Moves toward providing a complete walkway from 43<sup>rd</sup> Street (current western terminus of sidewalk on Chinden Boulevard) to Glenwood Street.

**Lady Bird Pathway Cost:**  
\$80,000 – \$3,200,000

**VRT Bus Stop Cost:**  
\$4,500 – \$23,500

**Potential Funding Sources:** TAP, RTP, Public Transportation (bus stop relocation only), ADA Curb Ramp Program, CIM Implementation Grants, ACHD Community Programs

**Potential Project Partners:** Ada County, ACHD, COMPASS, , ITD, VRT

**Considerations:**

Additional public involvement and consultation with Ada County will be needed to assess potential impacts to the park. The design of any pathway adjoining Chinden Boulevard will need to consider stormwater drainage. Consultation will be required with Idaho Parks and Recreation to verify that the pathway is considered a public recreational use.

### Project Location/Images:



## FHWA REPORT RECOMMENDATIONS/NEEDS IDENTIFIED

The FHWA Bike and Pedestrian Assessment Report (FHWA report) for Chinden Boulevard lists concerns associated with the Glenwood to Kent study area. The lack of a paved sidewalk or pathway between Glenwood Street and Kent Lane leaves a significant gap in Garden City's pedestrian network, and fails to connect Garden City residents to key community amenities. The FHWA report also highlights the lack of ADA accessible pedestrian ramps at intersections as a barrier to vulnerable populations.

The FHWA report recommends closing the gap between Glenwood Street and Kent Lane with a pathway along the front of Lady Bird Park. It also advises connecting the VRT bus pads to existing sidewalks at the intersection of Chinden Boulevard and Kent Lane. Per discussions with COMPASS, Garden City and other project team members, both of these recommendations are incorporated into the Glenwood to Kent project bundle.

## EXISTING BICYCLE AND PEDESTRIAN INFRASTRUCTURE

Currently people walking and biking along Chinden Boulevard between Glenwood Street and Kent Lane cope with limited infrastructure. There are no sidewalks or other separated walkways. A paved shoulder varying between 5' and 10' in width adjoins the south side of Chinden Boulevard. An extruded curb runs along the paved shoulder east from the intersection of Chinden Boulevard and Glenwood Street for approximately 250'. An unpaved, gravel shoulder varying between 3' and 20' in width adjoins the north side of Chinden Boulevard. An extruded curb runs along the unpaved shoulder east from the intersection of Chinden Boulevard and Glenwood Street for approximately 1,070'. There is also an existing 8' paved pathway on the east side of Glenwood Street north of Chinden Boulevard that connects to the Greenbelt and other key community destinations, such as Memorial Stadium and Garden City Hall and Library.



**Existing walkway on the north side of Chinden Boulevard approaching Glenwood Street**

## RECOMMENDED TREATMENTS

This bundle contains two separate projects from the FHWA report:

- A. Lady Bird Park Pathway
- B. VRT Bus Pad Relocation

Potential treatments for both of these projects are described in the following sections.

## Lady Bird Park Pathway

The Lady Bird Park Pathway is a multi-use path that will provide a continuous connection on the north side of Chinden Boulevard between Glenwood Street and Kent Lane. The proposed path is recommended to be at least 10' wide to accommodate two-way bicycle and pedestrian traffic. The actual width should be determined in the design phase of the project. Two alternative alignments for this path were studied to analyze the benefits and constraints associated with different possible alignments of the path:

- Alternative 1 – is located completely within Lady Bird Park
  - Cost estimates for Alternative 1 evaluated an asphalt pathway
- Alternative 2 – uses ITD right-of-way to the extent possible
  - Cost estimates for Alternative 2 evaluated both a concrete sidewalk and an asphalt pathway with extruded curb

### ***Lady Bird Park Pathway – Alternative 1***

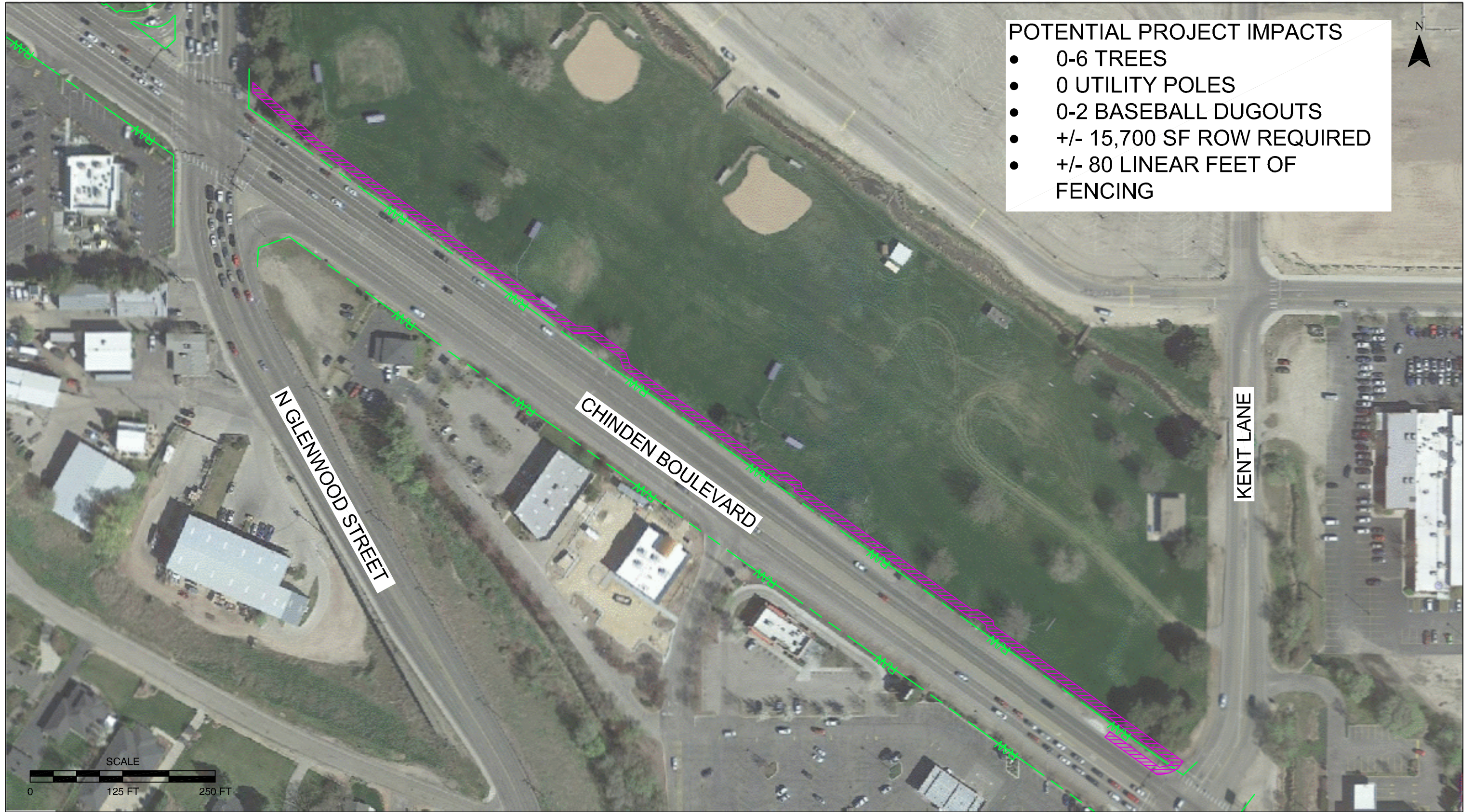
Alternative 1 runs entirely through Lady Bird Park from Kent Lane to Glenwood Street, as shown in Figure 5. The proposed alignment is just north of the fence that separates the park from Chinden Boulevard. The asphalt pathway wraps around the existing chain link fence at the eastern end of the park in order to access the VRT bus stop located on the northern side of Chinden Boulevard. Alternatively, an access directly to the bus stop into the park could be provided by providing an opening in the fence and paving a connection between the bus stop and the pathway. However, such a connection would need to account for the difference in elevation between the bus stop and the park and meet ADA requirements.

Since Alternative 1 runs almost exclusively through Lady Bird Park, the proposed pathway will provide a low stress route for people walking and biking on Chinden Boulevard. This location also avoids challenges associated with utility pole conflicts and stormwater mitigation.

However, as drawn, there are potential conflicts with up to six trees, one baseball dugout, and one bench. All of these features could likely be avoided either by designing the alignment of the pathway to avoid them or by narrowing the pathway in their vicinity.

Figure 5 summarizes the potential impacts of the alignment, while Figure 6 and Figure 7 identify the location of potential project impacts.

The FHWA assessment identified the park fence located at the intersection of Chinden Boulevard and Glenwood Street as a safety concern for pedestrians. The potential relocation of the park fence at this location should be considered in the project design phase.



- POTENTIAL PROJECT IMPACTS**
- 0-6 TREES
  - 0 UTILITY POLES
  - 0-2 BASEBALL DUGOUTS
  - +/- 15,700 SF ROW REQUIRED
  - +/- 80 LINEAR FEET OF FENCING

C:\Users\msanders\Desktop\ladybird\ladybird Park.dwg Sep 29, 2016 - 5:12pm - msanders Layout Tab: Alternative 1

SCALE  
 0 125 FT 250 FT

- POTENTIAL PATHWAY ALIGNMENT
- APPROXIMATE ITD RIGHT-OF-WAY

**LADY BIRD PARK PATHWAY ALIGNMENT  
 ALTERNATIVE 1  
 GARDEN CITY, IDAHO**

Figure 5



PATHWAY JOGS TO AVOID UTILITY POLES

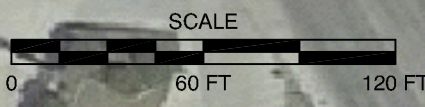
POTENTIAL TREE CONFLICTS DEPENDING ON ALIGNMENT

PATHWAY MAY NEED TO BE NARROWED SLIGHTLY TO AVOID DUGOUT

PATHWAY JOGS TO AVOID UTILITY POLES

N GLENWOOD STREET

CHINDEN BOULEVARD



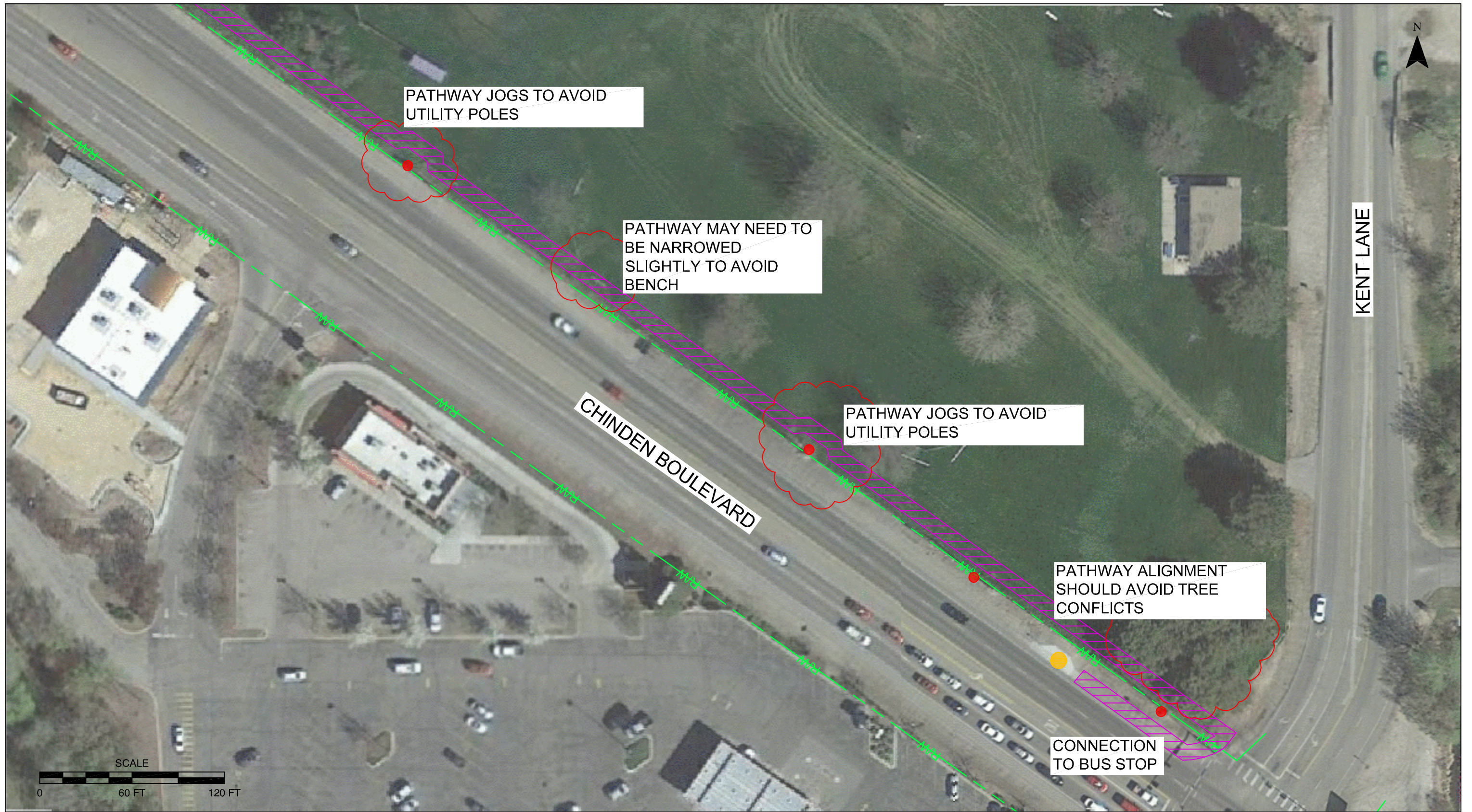
- POTENTIAL PATHWAY ALIGNMENT
- APPROXIMATE ITD RIGHT-OF-WAY
- UTILITY POLE

**LADY BIRD PARK PATHWAY ALIGNMENT  
ALTERNATIVE 1 - WESTERN VIEW  
GARDEN CITY, IDAHO**

Figure  
**6**

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- POTENTIAL PATHWAY ALIGNMENT
- APPROXIMATE ITD RIGHT-OF-WAY
- VRT BUS STOP
- UTILITY POLE

**LADY BIRD PARK PATHWAY ALIGNMENT  
ALTERNATIVE 1 - EASTERN VIEW  
GARDEN CITY, IDAHO**

Figure  
**7**

Finally, Lady Bird Park was originally purchased by Ada County using federal monies from the Land and Water Conservation Fund (LWCF). Land purchased with LWCF assistance is subject to Section 6(f) protections restricting the conversion of land to any use other than public outdoor recreation use (10). Changes to Ladybird Park that would convert any portion of the park to a use other than public outdoor recreation would require National Park Service (NPS) approval. NPS requires an “in-kind swap” of property to replace 6(f) land taken out of public outdoor recreation use with property of reasonably equivalent usefulness and location, and of at least equal fair market value. Based on our conversation with Idaho Department of Parks and Recreation (IDPR) staff, either pathway alternative would qualify as an outdoor recreation use and therefore would not be require a land swap. If either pathway alternative moves forward, IDPR will require a copy of the pathway design so that they can include it in the LWCF file for the park.

### ***Lady Bird Park Pathway – Alternative 2***

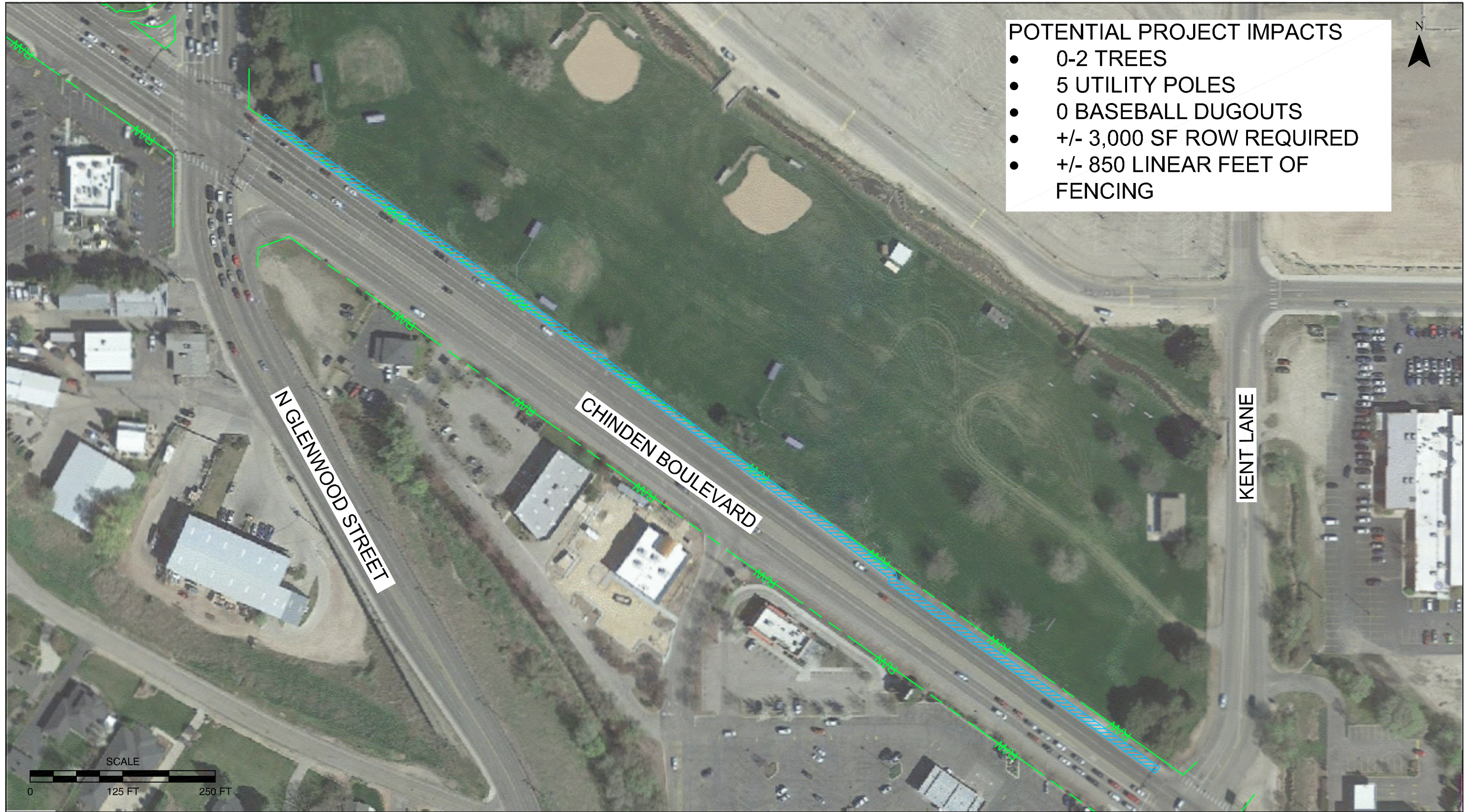
Alternative 2 uses as much of the existing ITD right-of-way along the north side of Chinden Boulevard as possible. This alternative provides a direct, clear route along Chinden Boulevard and connects to the VRT bus stop located on the northern side of Chinden Boulevard. Figure 8 illustrates the proposed pathway alignment for Alternative 2, along with potential project impacts.

This pathway could be constructed as either an asphalt path with extruded curb between the motor vehicle lanes and the pathway (e.g., similar to the existing walkway on the south side of Chinden Boulevard, but wider and possibly with breaks to allow stormwater to flow through), or it could be built as a raised concrete pathway. The raised concrete pathway may be more comfortable for walking and biking than the extruded curb pathway. It would also provide an urban aesthetic. However, this option would not allow stormwater to flow through as it currently does. As a result additional stormwater infrastructure would need to be provided in conjunction with the project.

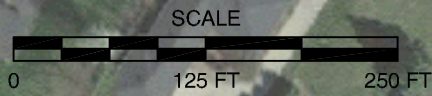


**Existing extruded curb walkway on the south side of Chinden Boulevard near Glenwood Street**

Figure 9 and Figure 10 summarize potential project impacts associated with Alternative 2. Since Alternative 2 runs along the length of a narrow unpaved shoulder, the proposed pathway alignment will require relocating the park fence and may conflict with two trees and five utility poles. The trees could potentially be avoided, depending on the pathway is aligned. Likewise, the utility poles could also be avoided by wrapping the pathway around the north side of them; however, this would incur additional impacts to Lady Bird Park.



- POTENTIAL PROJECT IMPACTS**
- 0-2 TREES
  - 5 UTILITY POLES
  - 0 BASEBALL DUGOUTS
  - +/- 3,000 SF ROW REQUIRED
  - +/- 850 LINEAR FEET OF FENCING



- POTENTIAL PATHWAY ALIGNMENT
- APPROXIMATE ITD RIGHT-OF-WAY

**LADY BIRD PARK PATHWAY ALIGNMENT  
ALTERNATIVE 2  
GARDEN CITY, IDAHO**

Figure  
**8**

C:\Users\msanders\Desktop\ladybird\ladybird Park.dwg Sep 29, 2016 - 5:09pm - msanders Layout Tab: Alternative 1 (2)

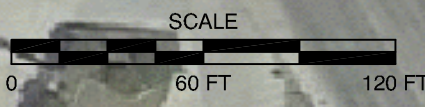





POTENTIAL TREE CONFLICTS  
DEPENDING ON ALIGNMENT

PATHWAY INTERSECTS WITH  
EXISTING CHAIN-LINK FENCE AND  
CROSSES INTO PARK

N GLENWOOD STREET

CHINDEN BOULEVARD



-  - POTENTIAL PATHWAY ALIGNMENT
-  - APPROXIMATE ITD RIGHT-OF-WAY
-  - UTILITY POLE

**LADY BIRD PARK PATHWAY ALIGNMENT  
ALTERNATIVE 2 - WESTERN VIEW  
GARDEN CITY, IDAHO**

Figure  
**9**

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- POTENTIAL PATHWAY ALIGNMENT
- APPROXIMATE ITD RIGHT-OF-WAY
- VRT BUS STOP
- UTILITY POLE

**LADY BIRD PARK PATHWAY ALIGNMENT  
ALTERNATIVE 2 - EASTERN VIEW  
GARDEN CITY, IDAHO**

Figure  
**10**

C:\Users\msanders\Desktop\ladybird\Lady Bird Park.dwg Sep 29, 2016 - 5:11pm - msanders Layout Tab: Zoom\_East\_2

## VRT Bus Stop Relocation

The current VRT bus stop on the south side of Chinden Boulevard is on the west side of the Fred Meyer access. However, the sidewalk into the store is on the east side of the intersection. Additionally, far-side bus stops are preferred by VRT. Two alternative treatments for this relocation were studied to analyze associated benefits and constraints:

- Constructing the new bus stop in a configuration similar to the existing stop (i.e., with the bus stop pad located directly adjacent to the standard width shoulder)
- Constructing the new bus stop with an improved shoulder (i.e., one wide enough to accommodate the entire width of the bus)

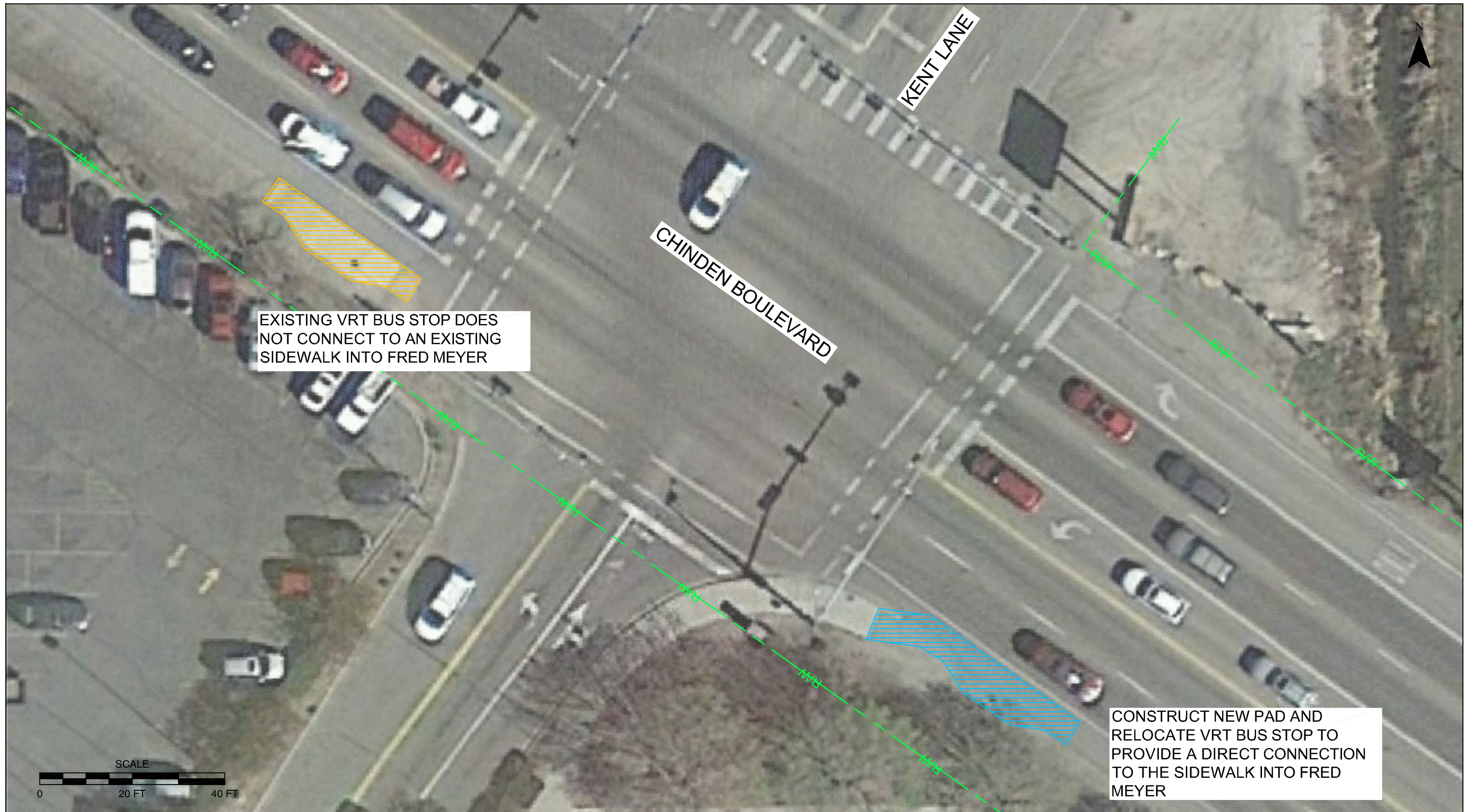


**Existing sidewalk into Fred Meyer**

Figure 11 shows the proposed bus stop relocation without an improved shoulder and Figure 12 shows the proposed bus stop relocation with an improved shoulder. The primary benefit associated with this latter configuration is that it allows the bus to completely pull out of the motor vehicle travel lane to allow passengers to board and alight; thereby allowing motor vehicle traffic flow to continue in the far right lane. Both proposed concrete bus pads and associated 7' sidewalk (the existing width of the nearby sidewalk) should extend to directly connect with the existing sidewalk and curb ramp in the northeast corner of the Kent Lane/Chinden Boulevard intersection. ITD is currently in the process of building new curb ramps at this corner of the intersection.

## PLANNING LEVEL COST-ESTIMATE

Planning level cost estimates were prepared for each of the two pathway alternatives and the relocation of the VRT bus stop. Table 1 summarizes the estimated costs of each potential project. Appendix C provides detailed estimates for each recommended treatment.



EXISTING VRT BUS STOP DOES NOT CONNECT TO AN EXISTING SIDEWALK INTO FRED MEYER

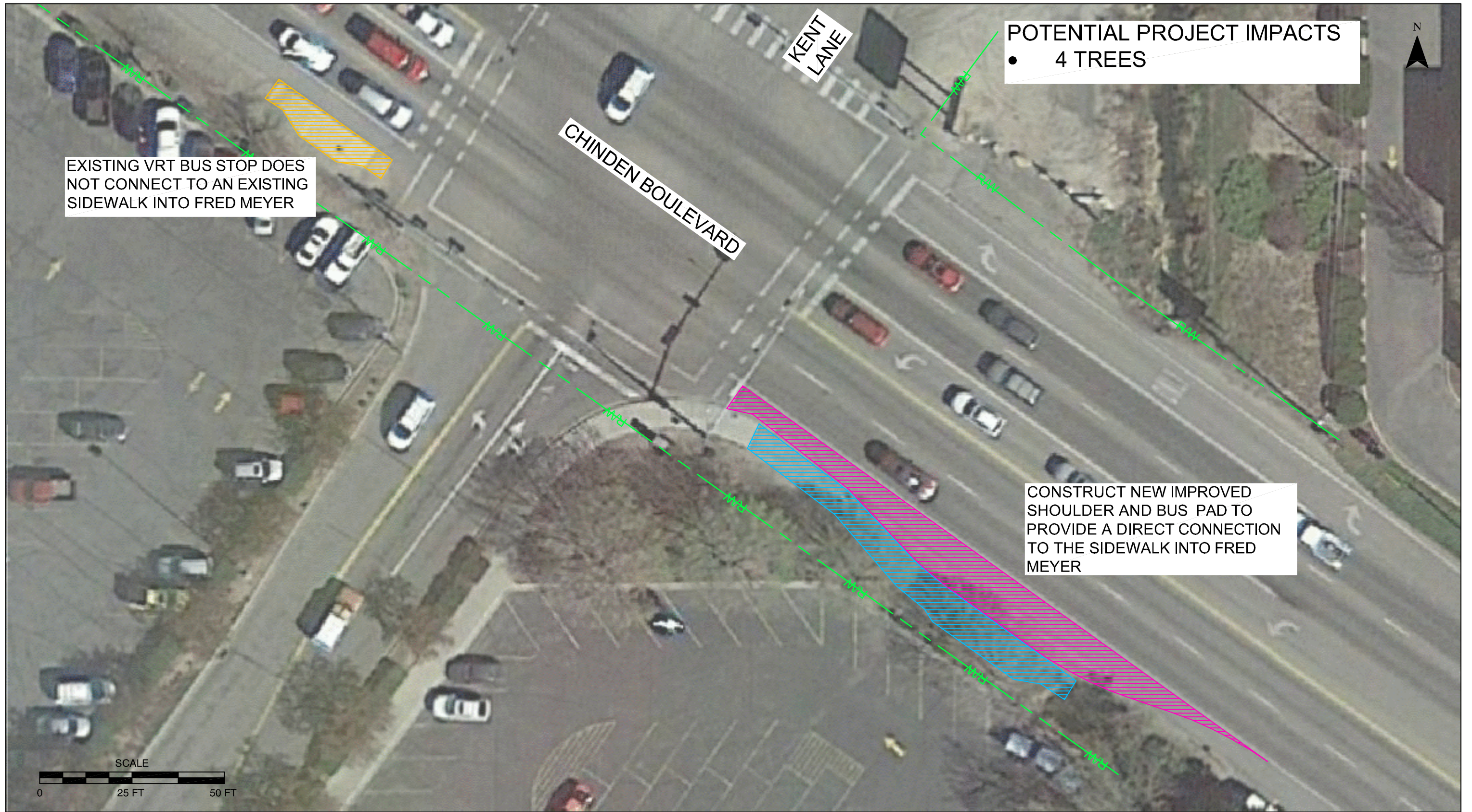
CONSTRUCT NEW PAD AND RELOCATE VRT BUS STOP TO PROVIDE A DIRECT CONNECTION TO THE SIDEWALK INTO FRED MEYER

- EXISTING BUS PAD LOCATION
- PROPOSED BUS PAD LOCATION
- APPROXIMATE ITD RIGHT-OF-WAY

**POTENTIAL VRT BUS PAD RELOCATION  
LADY BIRD PARK  
GARDEN CITY, IDAHO**

Figure  
**11**

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EXISTING VRT BUS STOP DOES NOT CONNECT TO AN EXISTING SIDEWALK INTO FRED MEYER

POTENTIAL PROJECT IMPACTS

- 4 TREES

CONSTRUCT NEW IMPROVED SHOULDER AND BUS PAD TO PROVIDE A DIRECT CONNECTION TO THE SIDEWALK INTO FRED MEYER

SCALE  
0 25 FT 50 FT

- EXISTING BUS PAD LOCATION
- PROPOSED BUS PAD LOCATION
- PROPOSED IMPROVED SHOULDER
- APPROXIMATE ITD RIGHT-OF-WAY

**POTENTIAL VRT BUS PAD RELOCATION WITH IMPROVED SHOULDER  
LADY BIRD PARK  
GARDEN CITY, IDAHO**

Figure  
**12**

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**Table 1 Estimated Project Costs - Glenwood to Kent**

Project	Estimated Cost
Lady Bird Park Pathway Alternatives	
Alternative 1	\$80,000 – 115,000 <sup>1</sup>
Alternative 2 – Concrete Pathway	\$365,000 - \$3,200,000 <sup>2</sup>
Alternative 2 – Asphalt Pathway with Extruded Curb	\$175,000
VRT Bus Stop Relocation	\$4,500 - \$23,500 <sup>3</sup>

<sup>1</sup>The cost estimate for Alternative 1 could vary based on whether or not the pathway width is reduced to avoid conflicting with the baseball dugouts and whether tree impacts are avoided.

<sup>2</sup>The high end of this range assumes that a stormwater trunk line connecting to the nearest line to the northwest is built. The low end of this range assumes no stormwater improvements.

<sup>3</sup>The high end of this range includes the improved shoulder, while the lower end only includes the relocated bus stop pad.

Alternative 1 is expected to have the lowest cost of the potential Lady Bird Park pathway alternatives.

There is a fair amount of uncertainty regarding the cost estimate for the concrete pathway. The high end of the range shown assumes that a new stormwater trunk line is built connecting to the nearest existing line, which is located about 1.5 miles to the northwest. This assumes that the existing facility can support additional stormwater from this section of Chinden Boulevard. If it cannot, other options would need to be explored. It is also possible the other means to properly treat the stormwater could be developed (e.g., a nearby swale, or if the line from the southeast is extended along Chinden Boulevard with other projects), which could result in a cost in the middle of this range. Further analysis of stormwater treatment options would be required if a raised concrete pathway is moved forward as the preferred option.

For the bus stop relocation portion, the option with the improved shoulder is expected to cost about \$19,000 more than building the stop in a similar fashion to the existing one. The higher costs for the improved shoulder option result from having to extend the existing asphalt roadway beyond the current edge of pavement and removing trees that will likely be impacted by the widened shoulder.

## POTENTIAL FUNDING SOURCES

The recommended Glenwood to Kent projects are eligible for local, state and federal funding. Table 2 lists applicable funding sources and eligible projects. Appendix B details the application processes and selection criteria for these funding sources.

**Table 2 Applicable Funding Sources - Glenwood to Kent**

Funding Source	Funding Jurisdiction	Program Administrator	Eligible Projects
Transportation Alternatives Program	Federal	State – ITD Local - COMPASS	<ul style="list-style-type: none"> <li>▪ Lady Bird Park Pathway (Alternative 1)</li> <li>▪ Lady Bird Park Pathway (Alternative 2)</li> <li>▪ VRT Bus Stop Relocation</li> </ul>
Recreational Trails Program	Federal	IDPR	<ul style="list-style-type: none"> <li>▪ Lady Bird Park Pathway (Alternative 1)</li> </ul>
ADA Curb Ramp Program	ITD	ITD	<ul style="list-style-type: none"> <li>▪ Lady Bird Park Pathway (Alternative 2)</li> </ul>
Public Transportation Program	Federal	Regional – VRT Local - COMPASS	<ul style="list-style-type: none"> <li>▪ VRT Bus Stop Relocation</li> </ul>
Communities in Motion Implementation Program	COMPASS	COMPASS	<ul style="list-style-type: none"> <li>▪ Lady Bird Park Pathway (Alternative 1)</li> <li>▪ Lady Bird Park Pathway (Alternative 2)</li> <li>▪ VRT Bus Stop Relocation</li> </ul>
ACHD Community Programs	ACHD	ACHD	<ul style="list-style-type: none"> <li>▪ Lady Bird Park Pathway (Alternative 1)</li> <li>▪ Lady Bird Park Pathway (Alternative 2)</li> </ul>

### Transportation Alternatives Program

The Glenwood to Kent project bundle is eligible for TAP funding at both the statewide and local level (Boise Urbanized Area). Key goals of the CIM 2040 vision met by the project bundle include increasing walkability and transportation options and providing better access to parks. The project is also located within an environmental justice consideration area, increasing the likelihood that the project could receive TAP-TMA funding (12). If Alternative 1 or 2 is adopted in Ada County’s Comprehensive Plan, then the project will be more likely to receive TAP-TMA funding.

### Recreational Trails Program

If the Lady Bird Park Pathway project (Alternative 1) is to be built as a recreational trail and is added to a future iteration of Ada County’s Comprehensive Plan, then the project would be eligible for Recreational Trails Program funding. A completed environmental survey is required to be submitted with all applications for RTP funding.

### ADA Curb Ramp Program

The ADA curb ramps proposed as elements of the Ladybird Park pathways may be eligible for ADA Curb Ramp Program funding. Per ITD’s 2016 Curb Ramp Inventory, the northwest corner of the intersection of Kent Lane and Chinden Boulevard is identified as a high priority location for installing an ADA ramp (13). The northeast corner of the intersection of Glenwood Street and Chinden Boulevard is identified as a low priority location for installing an ADA ramp. Since the northwest corner of the intersection of

Kent Lane and Chinden Boulevard has a high-priority designation, a proposed ADA ramp at this location is more likely to receive ADA Curb Ramp Program funding from ITD.

### Public Transportation Program

The recommended VRT Bus Stop relocation is eligible for Public Transportation Program funding, which is distributed by VRT. Bus stop enhancement projects, including the relocation and installment of bus stops, have been funded by VRT and included in the FY2016-2020 Regional Transportation Improvement Program.

### Communities in Motion Program

The Glenwood to Kent project bundle is eligible for a CIM Implementation Grant, since all three projects provide better access to public transportation, bicycle, and pedestrian facilities. The Lady Bird Park pathway alternatives are estimated to cost more than the amount that recent CIM Implementation Grants have been awarded for. Therefore, this grant should be considered for use as potential matching funds for another funding source or to be paired with local funds.

### ACHD Community Programs

The Lady Bird Park pathway alternatives may be eligible for funding from ACHD. However, this would not be a typical use of these funds and would require approval from the ACHD Commission.

## ENVIRONMENTAL SCAN

An environmental scan was conducted to identify, at a high-level, potential environmental constraints and considerations within the Glenwood to Kent study area. Appendix D provides the detailed environmental scan. Key findings from the environmental scan are as follows:

- The National Register of Historic Places in Idaho from the State Historic Preservation Office (SHPO) indicated there are no listed historic places in the project area
- EPA's Enviromapper program indicated that there are 5 hazardous waste generators located within a ¼-mile of the study area
- IDEQ has identified 17 Underground Storage Tanks (USTs) and 1 leaking Underground Storage Tank (LUSTs) within a ¼-mile of the study area
- The US Fish & Wildlife Service (USFWS) has not identified the project area as proposed critical habitat for local threatened or endangered species
  - Slickspot Peppergrass is a proposed endangered species that may occur in the project area
  - The Yellow-billed Cuckoo is a threatened species that may occur in the project area

- Data from the National Wetlands Inventory database indicated Riverine Wetlands within a ¼-mile of the study area. No wetlands are known to be located in the path of the proposed projects.

## IMPLEMENTATION PROCESS

The following section outlines the general steps that would need to be taken to implement the projects.

### Lady Bird Park Pathway

The following steps should be taken to implement this project:

- Determine which alternative is preferred
- If Alternative 1 is selected:
  - Provide IDPR with a copy of the pathway design so that they can include it in the LWCF file for the Park
  - If Recreational Trails Program funding is to be considered, the pathway will need to be added to Ada County's Comprehensive Plan as a recreational trail
- If Alternative 2 is selected:
  - Determine whether it will be built as a raised concrete pathway or as an asphalt pathway with an extruded curb barrier
    - If it will be a concrete pathway, then determine what stormwater drainage mitigations will be required (this may be done as part of the design process)
- Provide IDPR with a copy of the pathway design so that they can include it in the LWCF file for the Park Determine the appropriate level of public involvement necessary to implement the preferred alternative
  - Alternative 1 may require greater outreach due to its impacts to the park
- Develop grant applications for design through construction in coordination with ITD, Garden City, COMPASS, and Ada County

### VRT Bus Stop Relocation

The following steps should be taken to implement this project:

- Determine if the bus stop relocation will include an improved shoulder
- Determine if the project will require grant funding or if it will be funded by VRT.
  - If grant funding will be required, develop grant applications for design through construction in coordination with ITD, Garden City, COMPASS and VRT.

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## FUTURE CONSIDERATIONS

Notable considerations that will need to be addressed during the implementation phase are highlighted here.

### Lady Bird Park Development Restrictions

Lady Bird Park was originally purchased by Ada County using LWCF funds. Consequently, Lady Bird Park is subject to Section 6(f) protections restricting the conversion of land to any use other than a public outdoor recreation use. The Lady Bird Park pathway alternatives would still provide a public outdoor recreational use and enhance access to the park. IDPR has confirmed that 6(f) mitigation will not be required. If either pathway moves forward, IDPR will require a copy of the pathway design so that they can include it in the LWCF file for the Park.

### Chinden Boulevard Stormwater Treatment Options

According to data provided by ITD staff, this section of Chinden Boulevard does not have stormwater drainage systems. The nearest facilities are on Kent Lane, but are owned by ACHD. The nearest ITD stormwater facilities are located about 1.5 miles to the northwest.

Any project that would result in a change in conditions (i.e., constructing a continuous raised concrete pathway) may trigger the need to provide drainage mitigations. Possible drainage mitigation requirements include installing drainage infrastructure along Chinden Boulevard or directing stormwater from the site vicinity to nearby swales. If a nearby swale cannot be developed, then a connection to the nearest ITD facility 1.5 miles away would likely need to be made.

### Public Involvement

The Lady Bird Park pathway alternatives would impact the current use of the park. As a result, some level of public involvement would likely be needed, depending on the extent to which the park is impacted. More thorough engagement may be needed before the design phase for Alternative 1, which runs entirely through the park, while Alternative 2, which only affects a portion of the park's periphery may not necessitate the same level of effort.

Section 4  
Kent to 50<sup>th</sup>

## KENT TO 50<sup>TH</sup>

The Kent to 50<sup>th</sup> project bundle provides a walkway on the north side of Chinden Boulevard between 50<sup>th</sup> Street and Kent Lane. Figure 13 illustrates the site vicinity for the project bundle. When completed, this project will facilitate an improved walking environment along the corridor. It will improve access to a range of commercial uses, including one of Garden City’s two grocery stores (Fred Meyer, located at Kent Lane), as well as to employment opportunities. When the Glenwood to Kent project bundle is built, the northern terminus of the Kent to 50<sup>th</sup> walkway will improve access to the Lady Bird Park Pathway and relocated VRT bus stop described in the previous section.



**Figure 13 - Kent to 50<sup>th</sup> Site Vicinity Map**

A project prospectus sheet summarizing this project is included in the next page, while more details regarding the project are provided in the following sections.

## KENT TO 50<sup>TH</sup> – WALKWAY ALONG THE NORTH SIDE OF CHINDEN BOULEVARD

**Description:** Construct an asphalt walkway separated from motor vehicle traffic by an extruded curb barrier along the north side of Chinden Boulevard from 50<sup>th</sup> Street to Kent Lane.

**Purpose:** Improve access for people walking, biking, and taking transit to reach several commercial and employment destinations. Moves toward providing a complete walkway from 43<sup>rd</sup> Street (current western terminus of sidewalk on Chinden Boulevard) to Glenwood Street.

<b>Cost:</b> \$70,000	<b>Potential Funding Sources:</b> TAP, CIM Implementation Grants, ACHD Community Programs, Public/Private Partnership
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**Potential Project Partners:** ACHD, COMPASS, Garden City, ITD, Garden City Urban Renewal Agency, Adjacent Businesses

**Considerations:** An extruded curb walkway is recommended due to the lack of existing stormwater infrastructure on Chinden Boulevard. The final design of the walkway will need to ensure that the curbing is designed so it remains a continuation of existing drainage conditions. Frequent, and sometimes long, driveways exist on Chinden Boulevard. The design should look for opportunities to better define and/or consolidate access points when feasible. The improvements proposed are not consistent with Garden City Code or sidewalk policy requirements or the Garden City Comprehensive Plan’s vision of Chinden as a tree-lined boulevard. These improvements are considered an interim solution and the first step toward Garden City’s long-range vision.

### Project Location/Images:





## FHWA RECOMMENDATION/NEEDS IDENTIFIED

The FHWA Bike and Pedestrian Assessment Report for Chinden Boulevard identifies the north side of Chinden Boulevard between 50<sup>th</sup> Street and Kent Lane as a focus area for providing safer bicycle and pedestrian infrastructure. The lack of a safe sidewalk or walkway between 50<sup>th</sup> Street and Kent Lane leaves a major gap in Garden City’s bicycle and pedestrian network. The FHWA report specifically recommends a combination of extruded curb, shoulder, and sidewalk treatments to improve access to destinations along Chinden Boulevard.



**Existing shoulder with open access frontage on Chinden Boulevard east of 50<sup>th</sup> Street**

## EXISTING BICYCLE AND PEDESTRIAN INFRASTRUCTURE

Bicyclists and pedestrians travelling along Chinden Boulevard between 50<sup>th</sup> Street and Kent Lane today utilize limited infrastructure. There are no sidewalks or separated walkways along this section of Chinden Boulevard. Paved shoulders varying between 2’ and 18’ in width adjoin the north side of Chinden Boulevard. Parked motor vehicles have been observed in the paved shoulders, further impeding safe bicycle and pedestrian travel along Chinden Boulevard between 50<sup>th</sup> Street and Kent Lane.

## RECOMMENDED TREATMENT

There are two options for providing a walkway along the north side of Chinden Boulevard from 50<sup>th</sup> Street to Kent Lane: 1) a raised sidewalk (either attached or detached and buffered with a planter strip); or 2) an asphalt walkway separated by an extruded curb.

A sidewalk would provide the more comfortable walking experience of the options. However, a sidewalk would also likely trigger the need for stormwater drainage mitigations. According to data provided by ITD, there is not stormwater infrastructure on this section of Chinden Boulevard. It is likely



**Extruded curb walkway section on Hill Road**  
*Image Source: Google Streetview*

that the installation of sidewalks on this section of Chinden Boulevard would trigger the need to build stormwater infrastructure (e.g., piping, “Green Street” treatments). This would result in increased expenses and project development time.

After consulting with the stakeholder group, given the desire to develop a project concept that could be implemented in the near-term, the recommended treatment presented here is a 5’

wide asphalt walkway buffered by an extruded curb. There is a preference for a 7' walkway, ideally with a landscape buffer, where right-of-way exists. The specific design of any walkway will be determined in the design process. The curb should be designed to allow stormwater to flow across the walkway as it does the shoulder today so there is no change in existing conditions. The improvements proposed are not consistent with Garden City Code or sidewalk policy requirements or the Garden City Comprehensive Plan's vision of Chinden as a tree-lined boulevard. Construction of the extruded curb walkway does not preclude the future implementation of Garden City's long-term vision for Chinden Boulevard, including the addition of sidewalks and street trees. Figure 14 and Figure 15 show the proposed asphalt walkway alignment.

## PLANNING LEVEL COST-ESTIMATE

Planning level cost estimates were prepared for both the recommended extruded curb walkway and concrete sidewalk alternative. Table 3 below summarizes the estimated costs of each potential project. Appendix C provides detailed estimates for each recommended treatment.

**Table 3 Estimated Project Costs - Kent to 50<sup>th</sup>**

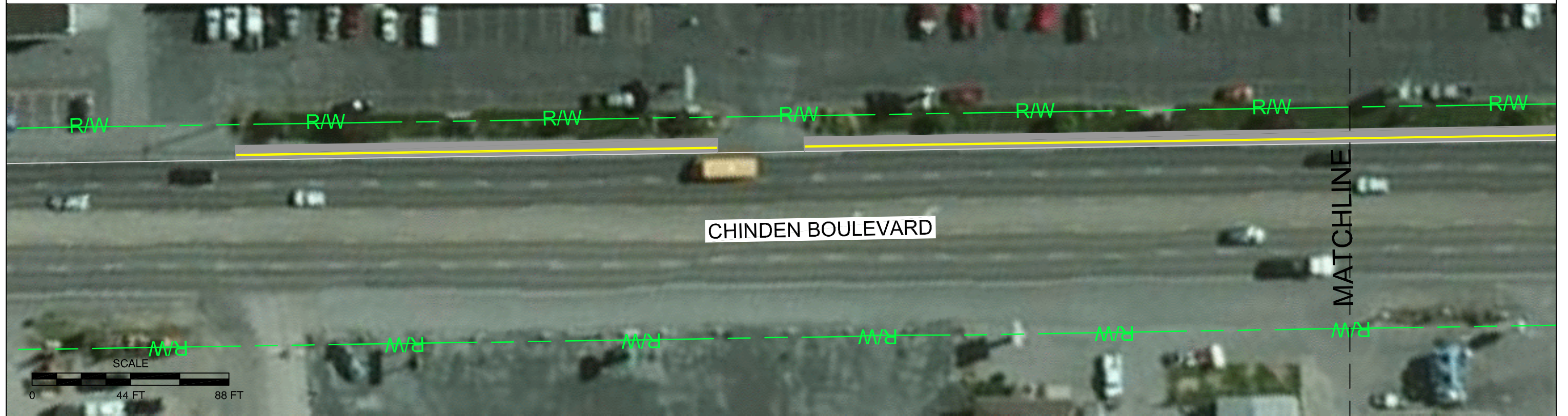
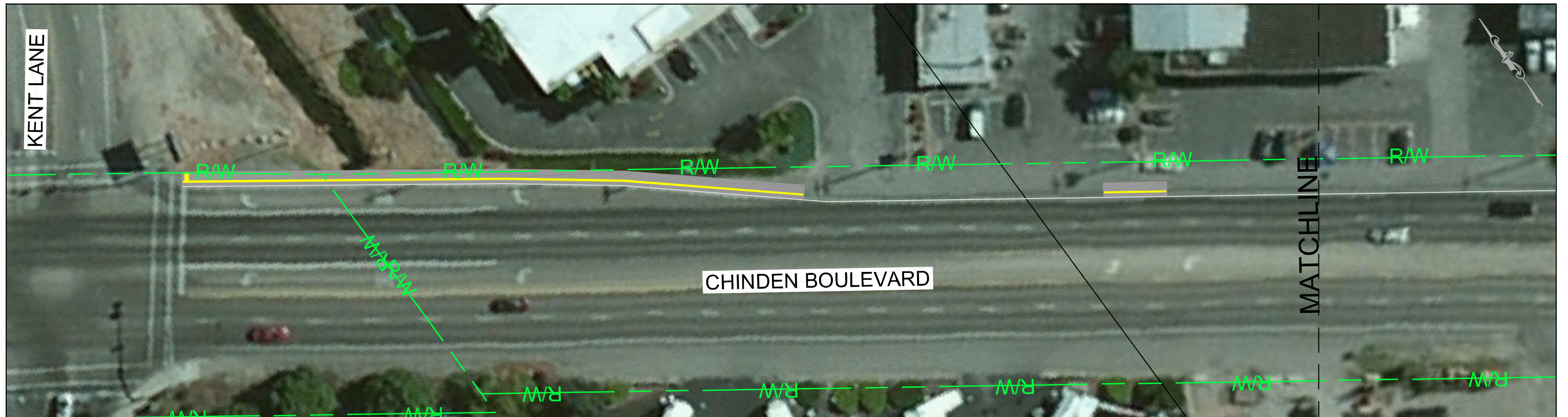
Project	Estimated Cost <sup>1</sup>
Extruded Curb Asphalt Walkway	\$70,000
Attached Concrete Sidewalk	\$1,000,000 - \$2,800,000 <sup>2</sup>

<sup>1</sup>This cost estimate does not include any potential access management that may be desirable (see Future Considerations section for more information).

<sup>2</sup>This cost estimate ranges depending on how far the stormwater trunk line needs to be built. The low end assumes that a new line has already been built to 50<sup>th</sup> Street as part of another project, while the high-end assumes it needs to be built all the way to the existing line at 43<sup>rd</sup> Street.

The primary costs associated with the extruded curb walkway is the curbing itself, as much of the asphalt for the walkway exists today.

There is a fair amount of uncertainty regarding the cost estimate for the concrete pathway. The high end of the range shown assumes that a new stormwater trunk line is built connecting to the nearest existing line, which is located at 43<sup>rd</sup> Street. This assumes that the existing facility can support additional stormwater from this section of Chinden Boulevard. If it cannot, other options would need to be explored. The lower end of the shown estimate assumes that the line only needs to be built for the length of the project (i.e., the existing line has been extended to 50<sup>th</sup> Street as part of another project). Further analysis of stormwater treatment options would be required to continue to develop a plan for adding sidewalk to Chinden Boulevard.

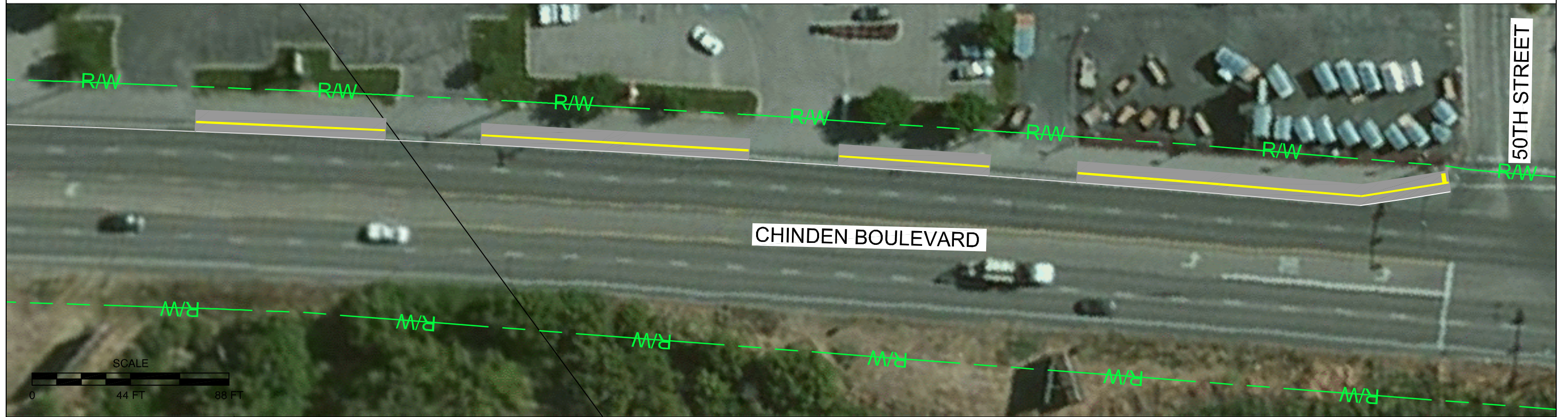
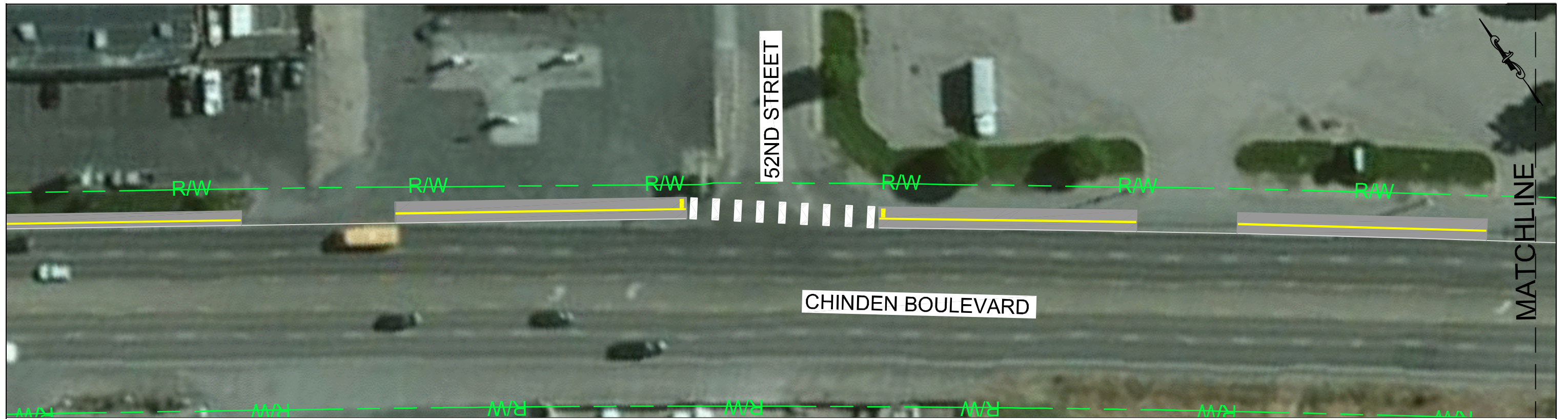


- ASPHALT WALKWAY
- EDGE STRIPE
- DETECTABLE DOMES
- EXTRUDED CURB
- APPROXIMATE ITD RIGHT-OF-WAY

**KENT TO 50TH  
ASPHALT WALKWAY WITH EXTRUDED CURB  
GARDEN CITY, IDAHO**

Figure  
**14**

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- ASPHALT WALKWAY
- EDGE STRIPE
- DETECTABLE DOMES
- EXTRUDED CURB
- APPROXIMATE ITD RIGHT-OF-WAY

**KENT TO 50TH**  
**ASPHALT WALKWAY WITH EXTRUDED CURB**  
**GARDEN CITY, IDAHO**

Figure  
**15**

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## POTENTIAL FUNDING SOURCES

The recommended asphalt walkway is eligible for local, state and federal funding. Since the asphalt walkway is considered an interim measure, it may be less competitive for federal funding. Table 4 lists applicable funding sources and eligible projects. Appendix B details the application processes and selection criteria for these funding sources.

**Table 4 Applicable Funding Sources - Kent to 50<sup>th</sup>**

Funding Source	Funding Jurisdiction	Program Administrator
Transportation Alternatives Program	Federal	State – ITD Local - COMPASS
Communities in Motion Implementation Program	COMPASS	Local - COMPASS
ACHD Community Programs	ACHD	Local - ACHD
Local Business Partners	Local	Local

### Transportation Alternatives Program

The Kent to 50<sup>th</sup> project bundle is eligible for TAP funding at both the statewide and local level (Boise Urbanized Area). Key goals of the CIM 2040 vision met by the project bundle include increasing walkability. The project is also located within an environmental justice consideration area, increasing the likelihood that the project could receive TAP-TMA funding.

### Communities in Motion Program

The Kent to 50<sup>th</sup> project bundle is eligible for a CIM Implementation Grant, since the project provides better access to bicycle and pedestrian facilities. Both walkway alternatives are estimated to cost more than the amount that recent CIM Implementation Grants have been awarded for. Therefore, this grant should be considered for use as potential matching funds for another funding source or to be paired with local funds.

### ACHD Community Programs

The proposed walkway from 50<sup>th</sup> Street to Kent Lane may be eligible for funding from ACHD. However, this would not be a typical use of these funds and would require approval from the ACHD Commission.

### Local Business Partners

The proposed asphalt walkway could benefit from the financial support of local business owners seeking to improve access to their establishments and/or the aesthetic of the street. This could be accomplished through direct financial contributions to the project, or via a more formal government process, such as a local improvement district (LID) or by establishing an urban renewal area; though it is

expected that another urban renewal area would not be established in Garden City for several years at the earliest.

## ENVIRONMENTAL SCAN

An environmental scan was conducted to identify, at a high-level, potential environmental constraints and considerations within the Kent to 50<sup>th</sup> study area. Appendix D provides the detailed environmental scan. Key findings from the environmental scan are as follows:

- The National Register of Historic Places in Idaho from the State Historic Preservation Office (SHPO) indicated there are no listed historic places in the project area
- EPA's Enviromapper program indicated that there are 12 hazardous waste generators located within a ¼-mile of the study area
- IDEQ has identified 23 Underground Storage Tanks (USTs) and 5 Leaking Underground Storage Tank (LUSTs) within a ¼-mile of the study area
- The US Fish & Wildlife Service (USFWS) has not identified the project area as proposed critical habitat for local threatened or endangered species
  - Slickspot Peppergrass is a proposed endangered species that may occur in the project area
  - The Yellow-billed Cuckoo is a threatened species that may occur in the project area
- Data from the National Wetlands Inventory database indicated Riverine Wetlands and Freshwater Emergent Wetlands within a ¼-mile of the study area. No wetlands are known to be located in the path of the proposed project bundle.

## IMPLEMENTATION PROCESS

The following section outlines the general steps that would need to be taken to implement the project:

- Conduct property and business owner outreach necessary to implement the preferred project, including discussions regarding better defining open access frontages
- Develop grant applications for design through construction in coordination with ITD, Garden City, COMPASS, and possibly ACHD and local business owners

## FUTURE CONSIDERATIONS

Notable considerations that will need to be addressed during the implementation phase are highlighted here.

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## Chinden Boulevard Stormwater Treatment Options

According to data provided by ITD staff, this section of Chinden Boulevard does not have stormwater drainage systems. The nearest facilities are on Kent Lane, but are owned by ACHD. The nearest ITD stormwater facilities are at 43<sup>rd</sup> Street.

Any project that would result in a change in conditions (i.e., constructing a continuous raised sidewalk) may trigger the need to provide drainage mitigations. Possible drainage mitigation requirements include installing drainage infrastructure along Chinden Boulevard or directing stormwater from the site vicinity to nearby swales. If a nearby swale cannot be developed, then a connection to the nearest ITD facility at 43<sup>rd</sup> Street would likely need to be made.

## Chinden Boulevard Driveway Access

The paved shoulders on the north side of this section of Chinden Boulevard are intersected by nine access driveways and wider access “frontages.” These access points limit the amount of coverage that any type of walkway can provide and present conflict points for people walking and driving. Opportunities to better define and consolidate driveway access points along Chinden Boulevard should be considered during the project design and construction phase. This will require additional coordination with local business and property owners.

Section 5  
50<sup>th</sup> to 43<sup>rd</sup>



# 50<sup>TH</sup> TO 43<sup>RD</sup>

## PROJECT AREA

The 50<sup>th</sup> to 43<sup>rd</sup> project includes a walkway on the north side of Chinden Boulevard between 43<sup>rd</sup> Street and 50<sup>th</sup> Street. Figure 16 illustrates the site vicinity for the project bundle. This project will provide improved access for people walking and biking to reach commercial, employment, and key community destinations. The walkway will also connect to the existing sidewalk network, which runs southwest along Chinden Boulevard from 43<sup>rd</sup> Street to Garden City limits where additional sidewalk connections are available to the Greenbelt and Boise via Garden Street and the Main Street/Fairview Avenue couplet. If the Kent to 50<sup>th</sup> project bundle is built, the 50<sup>th</sup> to 43<sup>rd</sup> Street walkway will improve access to one of Garden City's two grocery stores (Fred Meyer, located at Kent Lane).

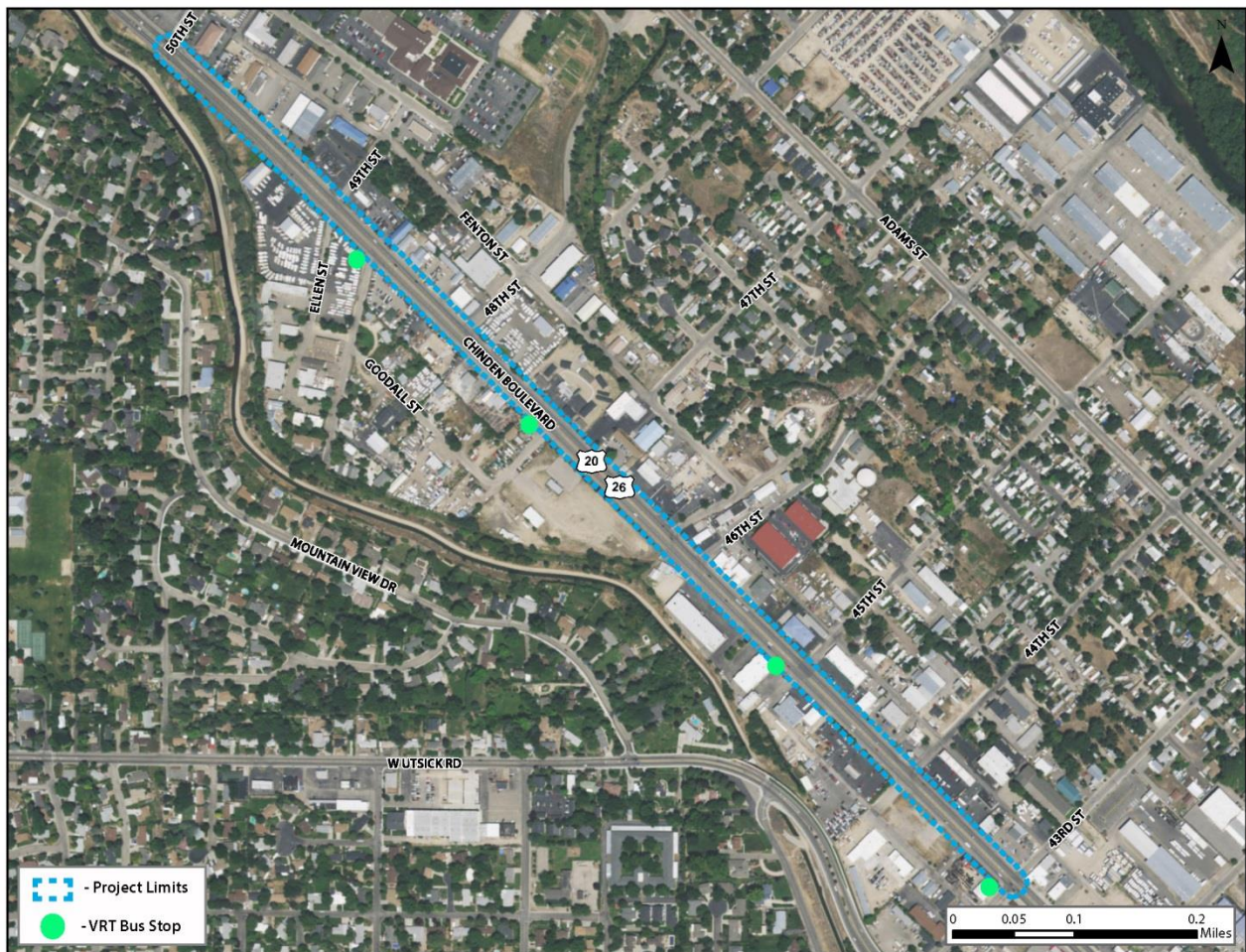


Figure 16 – 50<sup>th</sup> to 43<sup>rd</sup> Site Vicinity Map

A project prospectus sheet summarizing this project is included in the next page, while more details regarding the project are provided in the following sections.

## 50<sup>TH</sup> TO 43<sup>RD</sup> – WALKWAY ALONG THE NORTH SIDE OF CHINDEN BOULEVARD

**Description:** Construct an asphalt walkway separated from motor vehicle traffic by an extruded curb barrier along the north side of Chinden Boulevard from 43<sup>rd</sup> Street to 50<sup>th</sup> Street.

**Purpose:** Improve access for people walking, biking, and taking transit to reach several commercial and employment destinations. Moves toward providing a complete walkway from 43<sup>rd</sup> Street (current western terminus of sidewalk on Chinden Boulevard) to Glenwood Street.

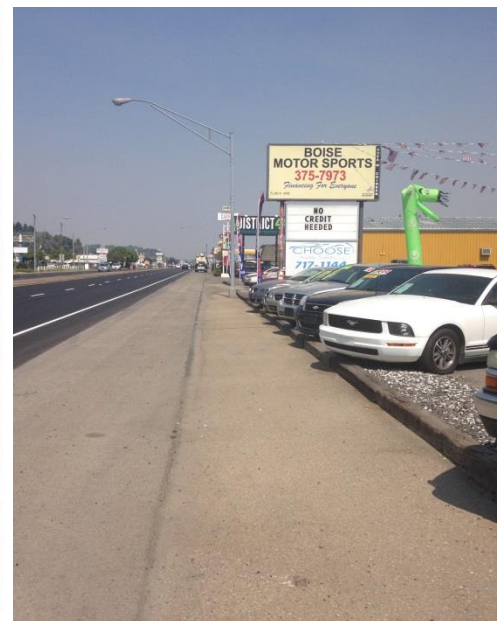
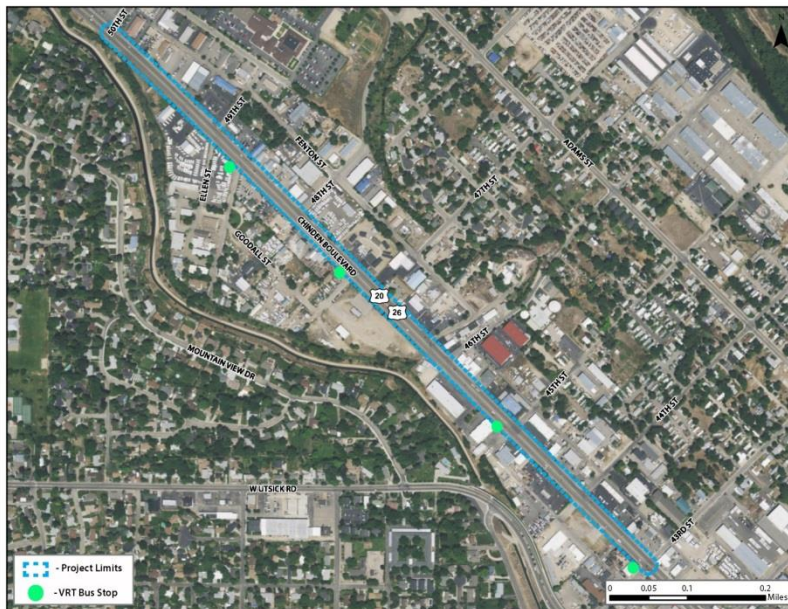
**Cost:** \$130,000

**Potential Funding Sources:** TAP, CIM Implementation Grants, ACHD Community Programs, Public/Private Partnership

**Potential Project Partners:** ACHD, COMPASS, Garden City, ITD, Adjacent Businesses

**Considerations:** An extruded curb walkway is recommended due to the lack of existing stormwater infrastructure on Chinden Boulevard. The final design of the walkway will need to ensure that the curbing is designed so it remains a continuation of existing drainage conditions. Frequent, and sometimes long, driveways exist on Chinden Boulevard. The design should look for opportunities to better define and/or consolidate access points when feasible. The improvements proposed are not consistent with Garden City Code or sidewalk policy requirements or the Garden City Comprehensive Plan's vision of Chinden as a tree-lined boulevard. These improvements are considered an interim solution and the first step toward Garden City's long-range vision.

### Project Location/Images:



## FHWA RECOMMENDATION/NEEDS IDENTIFIED

The FHWA Bike and Pedestrian Assessment Report for Chinden Boulevard identifies the north side of Chinden Boulevard between 43<sup>rd</sup> Street and 50<sup>th</sup> Street as a focus area for providing safer bicycle and pedestrian infrastructure. The lack of a separated walkway between 43<sup>rd</sup> Street and 50<sup>th</sup> Street leaves a major gap in Garden City's bicycle and pedestrian network. The FHWA report specifically recommends the use of a combination of extruded curb, shoulder, and sidewalk treatments to improve access to destinations along Chinden Boulevard.

## EXISTING BICYCLE AND PEDESTRIAN INFRASTRUCTURE

Bicyclists and pedestrians travelling along Chinden Boulevard between 43<sup>rd</sup> and 50<sup>th</sup> Street today utilize limited infrastructure. There are no sidewalks or separated walkways along this section of Chinden Boulevard. Paved shoulders varying between 5' and 20' in width adjoin the north side of Chinden Boulevard, and paved shoulders varying between 7' and 20' adjoin the south side of Chinden Boulevard.

VRT bus stops are located on the western corner of the intersection of Chinden Boulevard and 43<sup>rd</sup> Street, the western corner of the intersection of Chinden Boulevard and 45<sup>th</sup> Street, the western corner of the intersection of Chinden Boulevard and 47<sup>th</sup> Street, and the western corner of the intersection of Chinden Boulevard and Murray Street. These bus stops must be accessed via existing paved shoulders.



Existing shoulder on Chinden Boulevard west of 43<sup>rd</sup> Street

## RECOMMENDED TREATMENT



Extruded curb walkway section on State Street  
Image Source: Google Streetview

There are two options for providing a walkway along the north side of Chinden Boulevard from 43<sup>rd</sup> Street to 50<sup>th</sup> Street: 1) a raised sidewalk (either attached or detached and buffered with a planter strip); or 2) an asphalt walkway separated by an extruded curb.

A sidewalk would provide the more comfortable walking experience of the options. However, a sidewalk would also likely trigger the need for stormwater drainage mitigations. According to data provided by ITD, there is not stormwater

infrastructure on this section of Chinden Boulevard. It is likely that the installation of sidewalks on this section of Chinden Boulevard would trigger the need to build stormwater infrastructure (e.g., piping, “Green Street” treatments). This would result in increased expenses and project development time.

After consulting with the stakeholder group, given the desire to develop a project concept that could be implemented in the near-term, the recommended treatment presented here is a 5’ wide asphalt walkway buffered by an extruded curb. There is a preference for a 7’ walkway, ideally with a landscape buffer, where right-of-way exists. The specific design of any walkway will be determined in the design process. The curb should be designed to allow stormwater to flow across the walkway as it does the shoulder today so there is no change in existing conditions. The improvements proposed are not consistent with Garden City Code or sidewalk policy requirements or the Garden City Comprehensive Plan’s vision of Chinden as a tree-lined boulevard. Construction of the extruded curb walkway does not preclude the future implementation of Garden City’s long-term vision for Chinden Boulevard, including the addition of sidewalks and street trees. Figure 17, Figure 18, Figure 19 and Figure 20 show the proposed asphalt walkway alignment.

## PLANNING LEVEL COST-ESTIMATE

Planning level cost estimates were prepared for both the recommended extruded curb walkway and concrete sidewalk alternative. Table 5 below summarizes the estimated costs of each potential project. Appendix C provides detailed estimates for each recommended treatment.

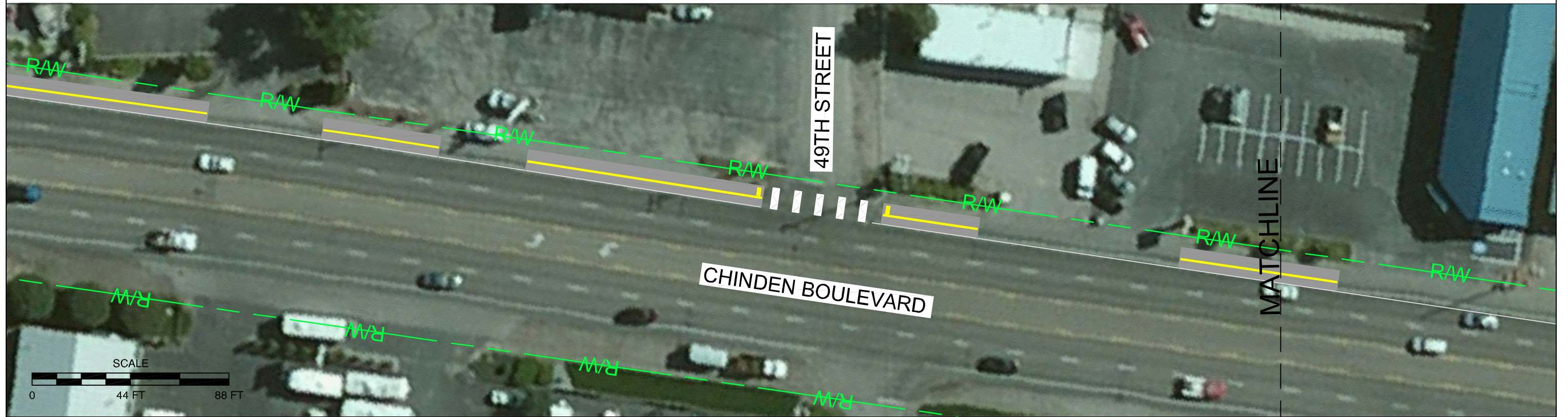
**Table 5 Estimated Project Costs - 50<sup>th</sup> to 43<sup>rd</sup>**

Project	Total Estimated Cost <sup>1</sup>
Extruded Curb Asphalt Walkway	\$130,000
Attached Concrete Sidewalk	\$2,100,000

<sup>1</sup>This cost estimate does not include any potential access management that may be desirable (see Future Considerations section for more information).

The primary costs associated with the extruded curb walkway is the curbing itself, as much of the asphalt for the walkway exists today.

The largest reason for the difference in cost between the two options is the additional stormwater infrastructure that would likely be required with construction of sidewalk. The sidewalk cost estimate assumes the construction of a new stormwater trunk line for the length of the project that connects to the existing stormwater facility at 43<sup>rd</sup> Street. There could be additional costs associated with this if the existing facility requires expansion to accommodate the new connection.

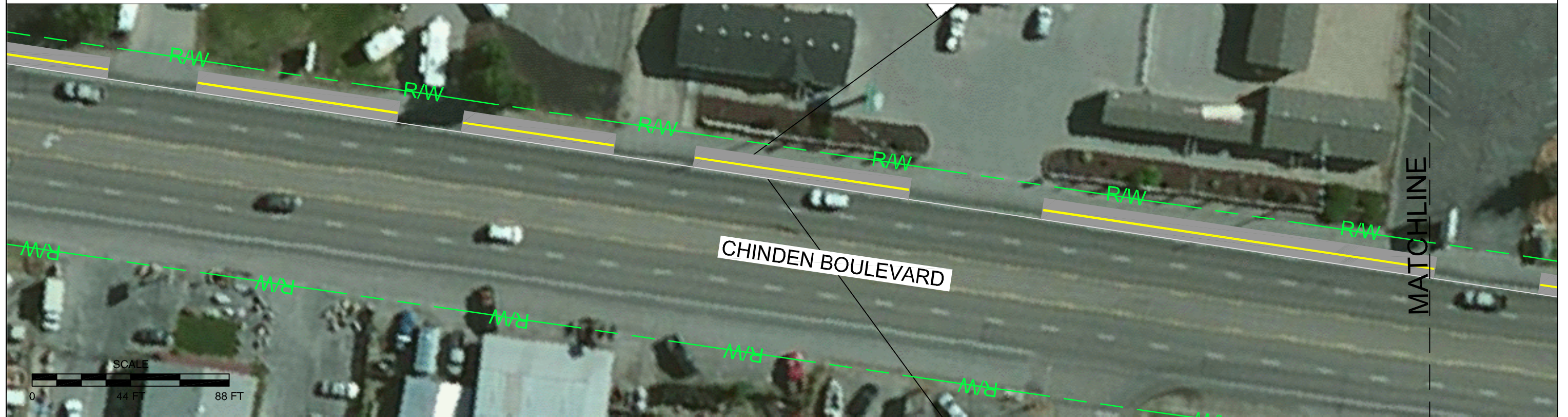
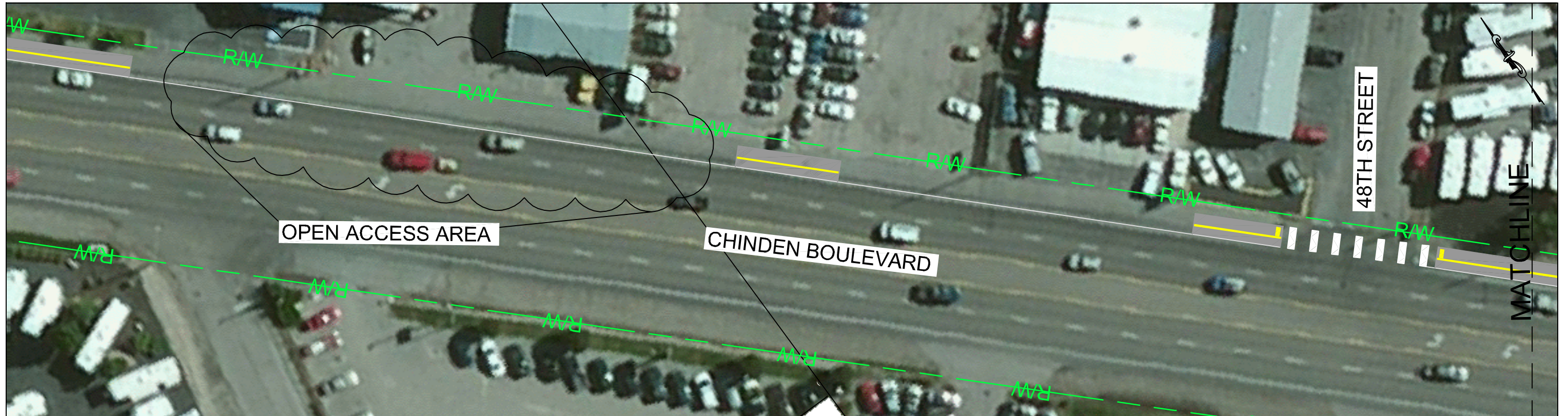


- ASPHALT WALKWAY
- EDGE STRIPE
- DETECTABLE DOMES
- EXTRUDED CURB
- APPROXIMATE ITD RIGHT-OF-WAY

**50TH TO 43RD  
ASPHALT WALKWAY WITH EXTRUDED CURB  
GARDEN CITY, IDAHO**

Figure  
**17**

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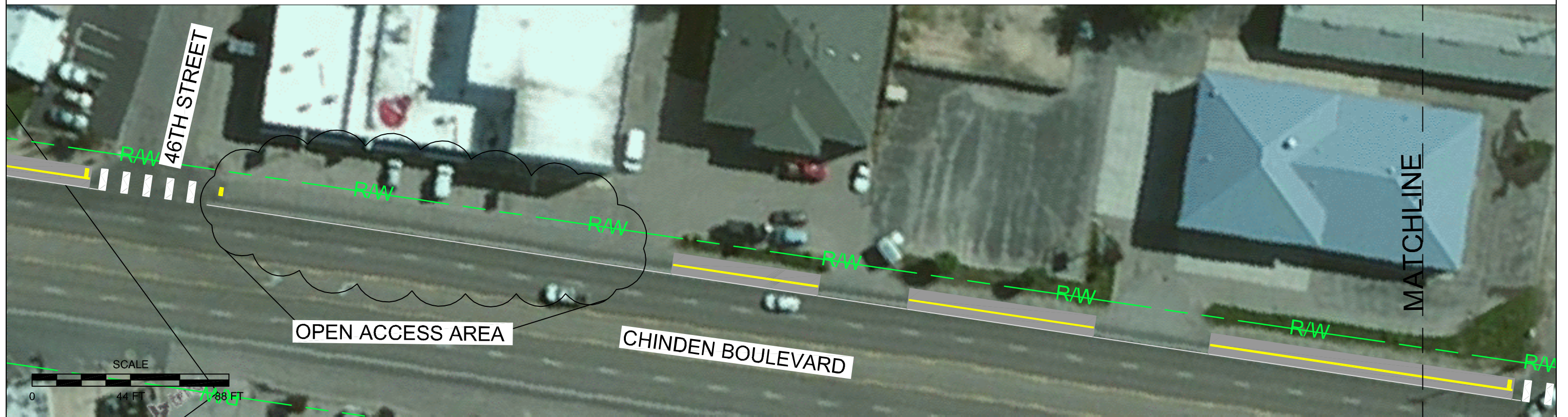
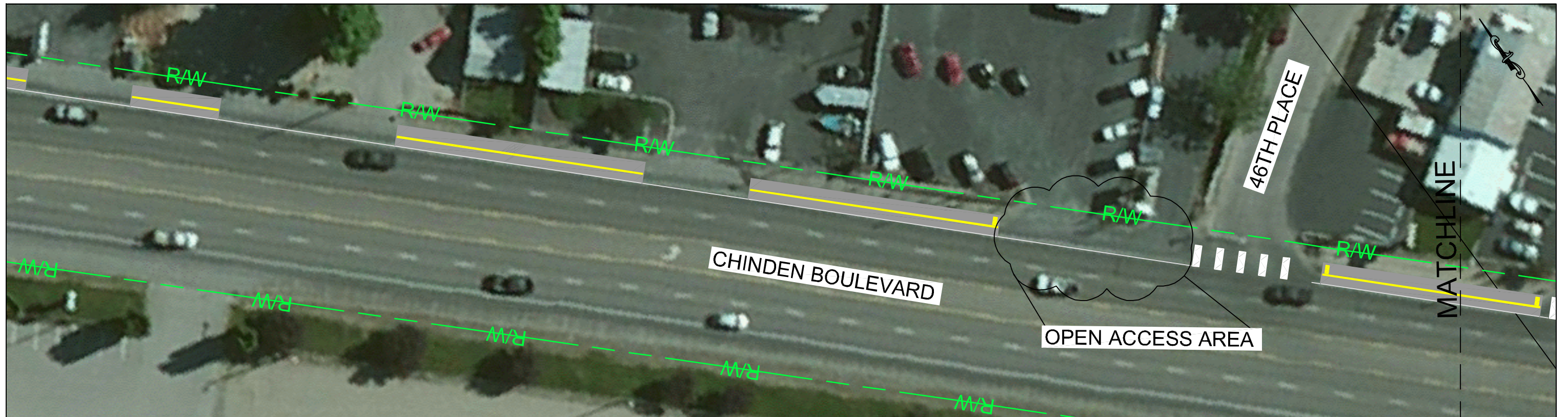


- ASPHALT WALKWAY
- EDGE STRIPE
- DETECTABLE DOMES
- EXTRUDED CURB
- APPROXIMATE ITD RIGHT-OF-WAY

**50TH TO 43RD  
ASPHALT WALKWAY WITH EXTRUDED CURB  
GARDEN CITY, IDAHO**

Figure  
**18**

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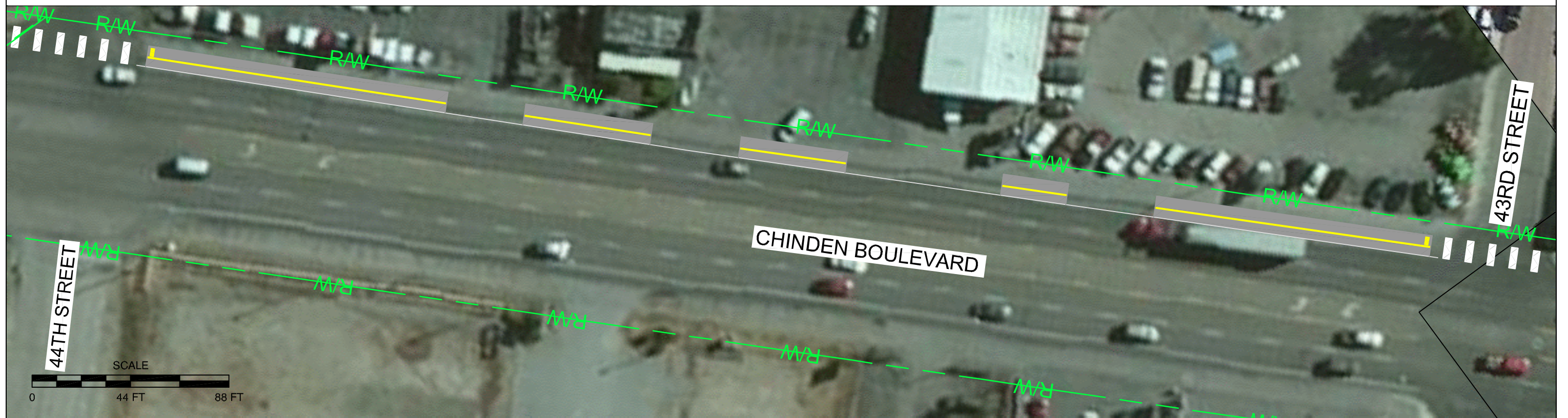
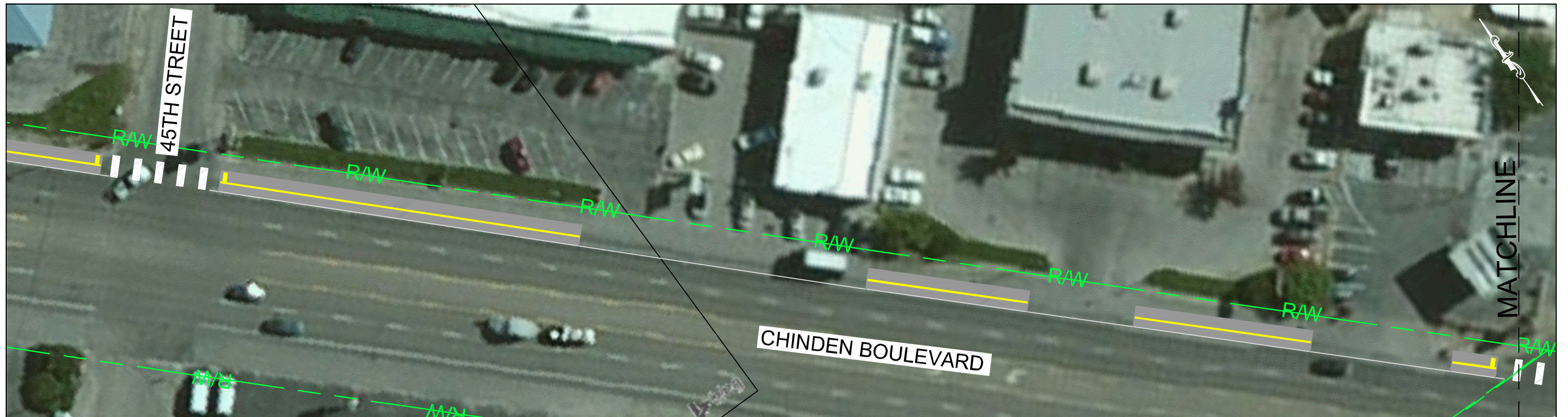


- ASPHALT WALKWAY
- EDGE STRIPE
- DETECTABLE DOMES
- EXTRUDED CURB
- APPROXIMATE ITD RIGHT-OF-WAY

**50TH TO 43RD  
ASPHALT WALKWAY WITH EXTRUDED CURB  
GARDEN CITY, IDAHO**

Figure  
**19**

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- ASPHALT WALKWAY
- EDGE STRIPE
- DETECTABLE DOMES
- EXTRUDED CURB
- APPROXIMATE ITD RIGHT-OF-WAY

**50TH TO 43RD**  
**ASPHALT WALKWAY WITH EXTRUDED CURB**  
**GARDEN CITY, IDAHO**

Figure  
**20**

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## POTENTIAL FUNDING SOURCES

The recommended asphalt walkway is eligible for local, state and federal funding. Since the asphalt walkway is considered an interim solution, it may be less competitive for federal funding Table 6 lists applicable funding sources and eligible projects. Appendix B details the application processes and selection criteria for these funding sources.

**Table 6 Applicable Funding Sources – 50<sup>th</sup> to 43<sup>rd</sup>**

Funding Source	Funding Jurisdiction	Program Administrator
Transportation Alternatives Program	Federal	State – ITD Local - COMPASS
ADA Curb Ramp Program	ITD	State - ITD
Communities in Motion Implementation Program	COMPASS	Local - COMPASS
ACHD Community Programs	ACHD	Local - ACHD
Local Business Partners	Local	Local

### Transportation Alternatives Program

The 50<sup>th</sup> to 43<sup>rd</sup> project bundle is eligible for TAP funding at both the statewide and local level (Boise Urbanized Area). Key goals of the CIM 2040 vision met by the project bundle include increasing walkability. The project is also located within an environmental justice consideration area, increasing the likelihood that the project could receive TAP-TMA funding.

### Communities in Motion Program

The 50<sup>th</sup> to 43<sup>rd</sup> project bundle is eligible for a CIM Implementation Grant, since the project provides better access to bicycle and pedestrian facilities. Both walkway alternatives are estimated to cost more than the amount that recent CIM Implementation Grants have been awarded for. Therefore, this grant should be considered for use as potential matching funds for another funding source or to be paired with local funds.

### ACHD Community Programs

The proposed walkway from 43<sup>rd</sup> Street to 50<sup>th</sup> Street may be eligible for funding from ACHD. However, this would not be a typical use of these funds and would require approval from the ACHD Commission.

### Local Business Partners

The proposed asphalt walkway could benefit from the financial support of local business owners seeking to improve access to their establishments and/or the aesthetic of the street. This could be accomplished through direct financial contributions to the project, or via a more formal government process, such as a local improvement district or by establishing an urban renewal area; though it is

expected that another urban renewal area would not be established in Garden City for several years at the earliest.

## ENVIRONMENTAL SCAN

An environmental scan was conducted to identify, at a high-level, potential environmental constraints and considerations within the 50<sup>th</sup> to 43<sup>rd</sup> study area. Appendix D provides the detailed environmental scan. Key findings from the environmental scan are as follows:

- The National Register of Historic Places in Idaho from the State Historic Preservation Office (SHPO) indicated there are no listed historic places in the project area
- EPA's Enviromapper program indicated that there are 20 hazardous waste generators located within a ¼-mile of the study area
- IDEQ has identified 12 Underground Storage Tanks (USTs) and 8 Leaking Underground Storage Tank (LUSTs) within a ¼-mile of the study area
- The US Fish & Wildlife Service (USFWS) has not identified the project area as proposed critical habitat for local threatened or endangered species
  - Slickspot Peppergrass is a proposed endangered species that may occur in the project area
  - The Yellow-billed Cuckoo is a threatened species that may occur in the project area
- Data from the National Wetlands Inventory database indicated Riverine Wetlands, Freshwater Emergent Wetlands and Freshwater Forested/Shrub Wetlands within a ¼-mile of the study area. Riverine Wetlands intersect with the project site at Chinden Boulevard and 46<sup>th</sup> Street.

## IMPLEMENTATION PROCESS

The following section outlines the general steps that would need to be taken to implement the project:

- Conduct property and business owner outreach necessary to implement the preferred project, including discussions regarding better defining open access frontages
- Develop grant applications for design through construction in coordination with ITD, Garden City, COMPASS, and possibly ACHD and local business owners

## FUTURE CONSIDERATIONS

Notable considerations that will need to be addressed during the implementation phase are highlighted here.

### Chinden Boulevard Stormwater Treatment Options

According to data provided by ITD staff, this section of Chinden Boulevard does not have stormwater drainage systems. The nearest ITD stormwater facilities are at 43<sup>rd</sup> Street.

Any project that would result in a change in conditions (i.e., constructing a continuous raised sidewalk) may trigger the need to provide drainage mitigations. A likely stormwater treatment option for this section of Chinden Boulevard would be to install a new trunk line that connects to the existing stormwater facility at 43<sup>rd</sup> Street. However, further analysis would be required to determine the feasibility of this connection.

### Chinden Boulevard Driveway Access

The paved shoulders on the north side of this section of Chinden Boulevard are intersected by 29 access driveways and wider access “frontages.” These access points limit the amount of coverage that any type of walkway can provide and present conflict points for people walking and driving. Opportunities to better define and consolidate driveway access points along Chinden Boulevard should be considered during the project design and construction phase. This will require additional coordination with local business and property owners.

Section 6  
Pedestrian Crossing at 43<sup>rd</sup> Street

## PEDESTRIAN CROSSING AT 43<sup>RD</sup> STREET

### PROJECT AREA

This project aims to improve crossing Chinden Boulevard at 43<sup>rd</sup> Street. Figure 21 illustrates the site vicinity for this project bundle. When completed, the pedestrian crossing will complete the missing link in a continuous route between Ustsick Road and the Greenbelt along 43<sup>rd</sup> Street, providing an alternative parallel route to Veterans Memorial Parkway/Curtis Road. In doing so, the crossing will also improve access to a local school (Anser Charter School) and the Boys and Girls Club.



**43<sup>rd</sup> Street Connection to the Greenbelt**  
*Image Source: Google Streetview*

A project prospectus sheet summarizing this project is included in the following pages, while more details regarding the project are provided in the following sections.

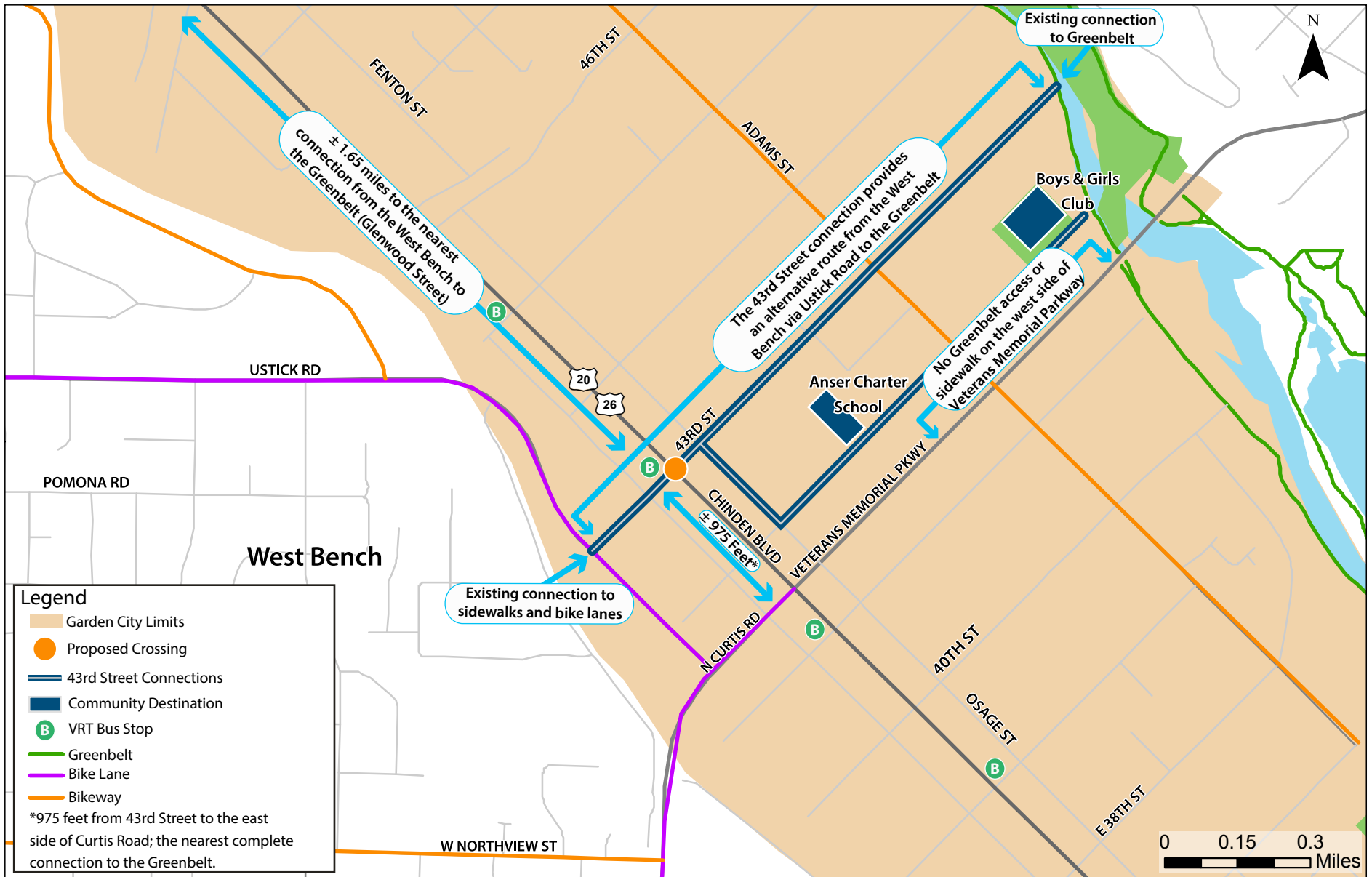
### FHWA RECOMMENDATION/NEEDS IDENTIFIED

The FHWA Bike and Pedestrian Assessment Report for Chinden Boulevard singled out the 43<sup>rd</sup> Street intersection as a focus area for implementing pedestrian crossing treatments. The lack of safe crossing options severely limits bicycle and pedestrian mobility along the Chinden Boulevard corridor. The FHWA report also highlights the lack of ADA accessible pedestrian ramps at Chinden Boulevard intersections as a barrier to vulnerable populations.

The FHWA report recommends constructing a pedestrian crossing at or near the intersection of Chinden Boulevard and 43<sup>rd</sup> Street.

### EXISTING BICYCLE AND PEDESTRIAN INFRASTRUCTURE

There are no crossing treatments for people walking or biking at the intersection. The nearest crosswalk that provides a complete sidewalk connection to the Greenbelt is approximately 975' to the east on the east side of the Veterans Memorial Parkway/Chinden Boulevard intersection (the sidewalk is not continuous on the west side of Veterans Memorial Parkway). To reach this crossing, people must walk along roads with relatively high motor vehicle volumes (i.e., Chinden Boulevard, Curtis Road, and/or Veterans Memorial Parkway). Due to the presence of a right-turn lane and double left-turn lanes on Chinden Boulevard at Veterans Memorial Parkway, the crossing is longer than it would be at 43<sup>rd</sup> Street, leaving people walking and biking exposed for greater periods of time while crossing Chinden Boulevard. A VRT bus stop is also located at the western corner of the intersection of Chinden Boulevard and 43<sup>rd</sup> Street.



**Key Biking & Walking Connections  
Pedestrian Crossing at 43rd Street  
Garden City, Idaho**

Figure  
**21**

## PEDESTRIAN CROSSING AT 43<sup>RD</sup> STREET

**Description:** Install a pedestrian hybrid beacon (PHB) controlled crossing of Chinden Boulevard at the 43<sup>rd</sup> Street intersection.

**Purpose:** Improve access for people walking, biking, and taking transit to reach Anser Charter School, the Boys and Girls Club, commercial and employment destinations, and the Greenbelt. Makes 43<sup>rd</sup> Street a more viable alternative route to Veterans Memorial Parkway for people walking and biking.

**Cost:**  
\$74,000 - \$78,500

**Potential Funding Sources:** TAP, CIM Implementation Grants, ACHD Community Programs

**Potential Project Partners:** ACHD, COMPASS, Garden City, ITD

**Considerations:** There is currently not enough crossing activity to meet MUTCD warrants for a PHB, but there is latent demand for the crossing given existing destinations near 43<sup>rd</sup> Street and the continuous connection it would provide. A more detailed engineering study may need to be completed prior to entering the design phase of this project.

### Project Location/Images:



## RECOMMENDED TREATMENT

A crossing controlled by a pedestrian hybrid beacon (PHB) is recommended for the east side of 43<sup>rd</sup> Street at Chinden Boulevard. The proposed crossing consists of two pedestrian hybrid signal poles and advance stop bars located on both eastern and western approaches to the intersection, a continental crosswalk at the eastern approach to the intersection, a crosswalk on the northern leg of the intersection, and ADA treatments on the northern side of the street (ITD is currently rebuilding the pedestrian ramps on the south side). Figure 22 shows the existing conditions at the 43<sup>rd</sup> Street intersection and Figure 23 shows a rendering of the 43<sup>rd</sup> Street intersection with the recommended pedestrian hybrid beacon and associated improvements.

This treatment was arrived at using National Cooperative Highway Research Program (NCHRP) Report 562 *Improving Pedestrian Safety at Unsignalized Crossings procedure*. NCHRP Report 562 provides guidance on the type of treatments that should be considered for an unsignalized crossing given a number of factors, including the speed limit of the roadway being crossed, pedestrian volumes, motor vehicle traffic volumes, length of the crossing, walk time, and expected compliance of motor vehicle drivers. Treatment categories include no treatment, crosswalk, active/enhanced (measures such as rectangular rapid flashing beacon) and signal.

### Crossing Demand and MUTCD Warrant

The treatment recommended by the NCHRP Report 562 analysis is based in part on existing demand. Existing pedestrian crossing volumes were observed during one weekday p.m. peak hour in July 2016. During this time only one person crossing Chinden Boulevard was observed. A previous bicycle count completed by the Treasure Valley Cycling Alliance (TVCA) observed 14 people biking on 43<sup>rd</sup> Street south of Ustick Road; however it is not clear if these people crossed Chinden Boulevard as part of their trip. Even if all of the people biking did cross Chinden Boulevard, the number of crossings would still be below what is needed to meet the PHB warrant in Section 4F of the Manual on Uniform Traffic Control Devices (MUTCD) (14), which has a lower threshold of 20 crossings in a single hour.

Agencies will install PHBs even when the MUTCD warrant is not met when surrounding land-uses and the existing roadway suggest there may be latent or future demand for a crossing (e.g., near a school, in an area expected to develop/redevelop). Indeed, the project team observed that some people walking along 43<sup>rd</sup> Street approached Chinden Boulevard, decided not to cross there, and instead traveled further east to cross at Veterans Memorial Parkway. Given the potential for 43<sup>rd</sup> street to serve as an alternate route to Veterans Memorial Parkway, the presence of Anser Charter School (a supporting e-mail from the school is provided in Appendix E), and potential latent demand, it is possible that improvements at the intersection would increase pedestrian crossings. Consequently, a pedestrian hybrid beacon is the recommended crossing treatment for the intersection. The results of the NCHRP Report 562 analysis are included in Appendix E.





Figure 22 – 43<sup>rd</sup> Street Intersection Existing Conditions (Looking East)



Figure 23 - Proposed Pedestrian Hybrid Beacon at 43<sup>rd</sup> Street Intersection (Looking East)

## Crossing Placement

As shown in Figure 23, the PHB is proposed to be located at the 43<sup>rd</sup> Street/Chinden Boulevard intersection. Section 4F.02 of the MUTCD recommends that the pedestrian hybrid beacon be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs. It is written in the MUTCD as a “should” statement, so it is not a requirement. Many agencies do not follow this recommendation and choose to install PHBs directly at intersections, because this is where the crossing demand often is. There are several examples of such installations throughout the Treasure Valley on local roads and on ITD highways (i.e., State Highway 44/Highlands Drive in Middleton and State Highway 45/Colorado Avenue in Nampa).



**SH 44/Highlands Drive Pedestrian Hybrid Beacon**  
*Image Source: Google Streetview*

## Signal Coordination

Section 4F.02 of the MUTCD also recommends that pedestrian hybrid beacons be coordinated with nearby signals when they are present. ACHD operates traffic signals in Ada County. According to ACHD staff, the signal controller at the nearby Veterans Memorial Parkway intersection should be able to be interconnected with a PHB at 43<sup>rd</sup> Street and there is already conduit and fiber in place to facilitate this connection.

The expected benefit of coordinating the PHB with the signal at Veterans Memorial Parkway is that it could reduce the build-up of motor vehicle queues along westbound Chinden Boulevard. A planning-level analysis of potential queuing on Chinden Boulevard at the PHB was conducted to investigate the likelihood that queues could stack up from 43<sup>rd</sup> Street to the Veterans Memorial Parkway intersection. Based on this analysis, queues are typically expected to be about 7 vehicles (i.e., approximately 175 feet) per lane on westbound Chinden Boulevard during the weekday p.m. peak hour when the PHB is activated, assuming a coordinated operation. This is less than the approximately 850 feet of storage space that exists between the two intersections. There are several low-volume driveways on Chinden Boulevard that would be blocked for a short time while the pedestrian hybrid beacon is activated during peak time periods. The affected businesses have alternate access to Garden City’s roadway network via alleys running on the north and south sides of Chinden Boulevard, so the pedestrian hybrid beacon should have minimal disruptive effects on surrounding businesses. More details on this analysis are included in Appendix E.

## PLANNING LEVEL COST-ESTIMATE

Two planning level cost estimates were prepared for the proposed pedestrian crossing. The first cost estimate includes the costs associated with installing an uncoordinated PHB, and the second cost estimate includes costs associated with installing a coordinated PHB. Table 7 below summarizes the

estimated cost of the project. Appendix C provides a detailed estimate for the recommended treatment.

**Table 7 Estimated Project Costs – Pedestrian Crossing at 43<sup>rd</sup> Street**

Project	Total Estimated Cost
Pedestrian Hybrid Beacon and Crosswalk Markings	\$74,000 - \$79,000 <sup>1</sup>

<sup>1</sup>The higher end of this range accounts for coordinated operation with the signal at Veterans Memorial Parkway

The main costs associated with the PHB include the cost of the beacon, utility cabinet, and associated pavement markings. Additional costs associated with the coordinated PHB include the installation of an interconnect splice vault and increased engineering design and construction management requirements. If necessary, the proposed PHB could potentially be built at another comparable location on Chinden Boulevard intersection with a similar cost.

## POTENTIAL FUNDING SOURCES

The recommended pedestrian hybrid beacon is eligible for local, state and federal funding. Table 8 lists applicable funding sources and eligible projects. Appendix B details the application processes and selection criteria for these funding sources.

**Table 8 Applicable Funding Sources – Pedestrian Crossing at 43<sup>rd</sup> Street**

Funding Source	Funding Jurisdiction	Program Administrator
Transportation Alternatives Program	Federal	State – ITD Local - COMPASS
ADA Curb Ramp Program	ITD	State - ITD
Highway Safety Improvement Program	Federal	State - ITD
Communities in Motion Implementation Program	COMPASS	Local - COMPASS
ACHD Community Programs	ACHD	Local - ACHD

### Transportation Alternatives Program

The 43<sup>rd</sup> Street Crossing project is eligible for TAP funding at both the statewide and local level (Boise Urbanized Area). Key goals of the CIM 2040 vision met by the project bundle include increasing walkability and transportation options. The project is also located within an environmental justice consideration area, increasing the likelihood that the project could receive TAP-TMA funding.

## Highway Safety Improvement Program

The proposed pedestrian hybrid beacon and associated pavement markings and signage are eligible for HSIP funding. Projects located in areas with high crash rates are more likely to receive HSIP funding. Per LHTAC's Local Road Crash Database, four crashes have occurred in the vicinity of the 43<sup>rd</sup> Street intersection between 2010 and 2014 (15). Three of the crashes involved property damage, and one crash involved a C injury accident. Since none of these crashes were fatal, and the 43<sup>rd</sup> Street has experienced relatively few crashes compared to larger, adjoining intersections, it is less likely that the proposed PHB and associated improvements will receive funding from the HSIP program.

## Communities in Motion Program

The proposed pedestrian hybrid beacon is eligible for a CIM Implementation Grant, since the project increases walkability and provides better access to public transportation. The crossing is estimated to cost more than the amount that recent CIM Implementation Grants have been awarded for. Therefore, this grant should be considered for use as potential matching funds for another funding source or to be paired with local funds.

## ACHD Community Programs

The proposed crossing may be eligible for funding from ACHD. However, this would not be a typical use of these funds and would require approval from the ACHD Commission. This funding source may be more likely for this project than the walkways given that the crossing would potentially serve children traveling to and from the ANSER Charter School who would be walking along an ACHD roadway (i.e., 43<sup>rd</sup> Street). Further, the current ACHD Commission has shown interest in funding crossings of Chinden Boulevard in the recent past.

## ENVIRONMENTAL SCAN

An environmental scan was conducted to identify, at a high-level, potential environmental constraints and considerations within the study area. Appendix D provides the detailed environmental scan. Key findings from the environmental scan are as follows:

- The National Register of Historic Places in Idaho from the State Historic Preservation Office (SHPO) indicated there are no listed historic places in the project area
- EPA's Enviromapper program indicated that there are 11 hazardous waste generators located within a ¼-mile of the study area
- IDEQ has identified 21 Underground Storage Tanks (USTs) and 6 Leaking Underground Storage Tank (LUSTs) within a ¼-mile of the study area
- The US Fish & Wildlife Service (USFWS) has not identified the project area as proposed critical habitat for local threatened or endangered species
  - Slickspot Peppergrass is a proposed endangered species that may occur in the project area

- The Yellow-billed Cuckoo is a threatened species that may occur in the project area
- Data from the National Wetlands Inventory database indicated Riverine Wetlands and Freshwater Emergent Wetlands within a ¼-mile of the study area. No wetlands are known to be located in the path of the proposed project bundle.

## IMPLEMENTATION PROCESS

The following section outlines the general steps that would need to be taken to implement the project:

- Work with ITD to determine what level of additional analysis will be required prior to implementing the project
  - Section 4F of the MUTCD recommends that pedestrian hybrid beacons be considered on the basis of an engineering study that considers major-street volumes, speeds, widths, and gaps in conjunction with pedestrian volumes, walking speeds, and delay.
- Work with ITD to determine whether the beacon will operate in isolation (e.g., “hot” activation where the beacon begins within a few seconds of the button being depressed) or if it will be coordinated with the Veterans Memorial Parkway intersection
  - PHBs typically operate in isolation so that they activate shortly after the pedestrian call comes in. Coordinating the PHB may result in long delays after the pushbutton is activated, resulting in noncompliance with the “Don’t Walk” indication and a beacon that is stopping traffic for a person who has already crossed if a gap appears earlier.
- Develop grant applications for design through construction in coordination with ITD, Garden City, COMPASS and ACHD.
- If the beacon is planned to be coordinated with the Veterans Memorial Parkway intersection, work with ACHD to interconnect the beacon with the Veteran’s Memorial Parkway signal and develop timing plans specifying how the pedestrian hybrid beacon will fit within the coordinated signal system.

## FUTURE CONSIDERATIONS

Notable considerations that will need to be addressed during the implementation phase are highlighted here.

### Impacts to Traffic Operation

If implemented, the pedestrian hybrid beacon will affect motor vehicle traffic operations along Chinden Boulevard. This project has completed a planning-level queuing analysis, and determined based on this analysis, that it is not likely that queuing from the PHB on westbound Chinden Boulevard will extend back to the Veterans Memorial Parkway intersection during the weekday p.m. peak hour. Further

detailed analysis could be completed as part of any engineering study that may be required before the crossing is designed.

### 43<sup>rd</sup> Street Sidewalks

There is not a complete sidewalk connection on 43<sup>rd</sup> Street between Ustick Road and Chinden Boulevard. This does not necessarily impact people who are bicycling on 43<sup>rd</sup> Street, but it does detract from the walking environment on this section of 43<sup>rd</sup> Street. If the pedestrian hybrid beacon is implemented, ACHD should consider a sidewalk project on 43<sup>rd</sup> Street south of Chinden Boulevard to improve this connection for people walking to/from Ustick Road.

Section 7  
References

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Appendix A Phase I Project Grouping  
Memorandum



# KITTELSON & ASSOCIATES, INC.

TRANSPORTATION ENGINEERING / PLANNING

101 S Capitol Boulevard, Suite 301, Boise, ID 83702 P 208.338.2683 F 208.338.2685

## MEMORANDUM

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Date: May 5, 2016 Project #: 18833  
To: Tom Laws, COMPASS  
From: Andy Daleiden, PE; Nick Foster, AICP; and Meredyth Sanders  
Project: Chinden Boulevard Corridor Project Development  
Subject: Project Grouping

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This memorandum summarizes the results of our project bundling and ranking processes for recommended action items from the 2015 Federal Highway Administration (FHWA) Bike and Pedestrian Assessment Report for Chinden Boulevard. It concludes by describing the projects that will be moved forward into the next phase of this project.

### PROJECT BACKGROUND

The Bike and Pedestrian Assessment Report for Chinden Boulevard was completed in May 2015 by FHWA in partnership with several agencies, including the Idaho Transportation Department (ITD), Ada County Highway District (ACHD), Garden City, the Community Planning Association of Southwest Idaho (COMPASS), and Valley Regional Transit (VRT). The purpose of the assessment was to identify common barriers and issues that affect the mobility and safety of people walking and biking on Chinden Boulevard. The completed report resulted in a number of recommended action items to improve walking and biking on Chinden Boulevard.

Garden City has now leveraged funding and support from the COMPASS Project Development Program in order to continue moving forward with implementing action items from the FHWA report. This project will develop logical project bundles out of the action items from the FHWA report, prioritize the project bundles, and develop the highest ranked bundles into more clearly defined project scopes. This memorandum summarizes the draft results of the first two steps in this process.

### PROJECT BUNDLING AND RANKING

Preliminary project bundles and ranking criteria were developed with the input of COMPASS, ACHD, Ada County, and Garden City staff. The processes used to group and rank the FHWA report's action items are described in the following sections.

## Project Bundling Process

Most of the individual action items from the FHWA report were organized into logical “project bundles.” Action items that are expected to be completed by an upcoming ITD mill and inlay project (ITD Key Number 13928) and projects that are the sole responsibility of ACHD, which is working through its action items in its own processes, were not included. The projects were grouped primarily based on geographic location.

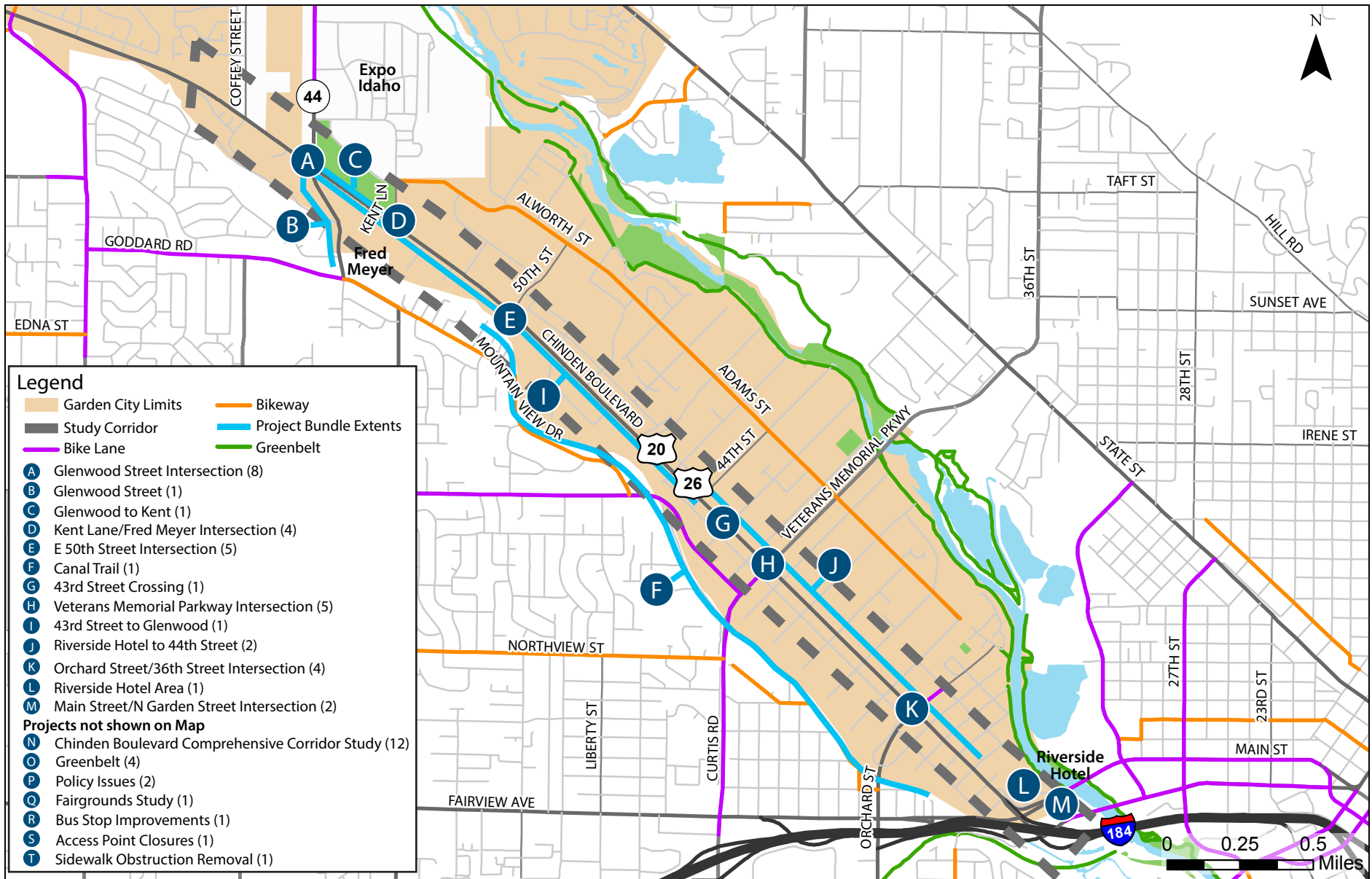
Many of the individual project recommendations applied to specific intersections or roadway segments. There were also several corridor-wide recommendations. Some of these recommendations were applied across multiple relevant location-specific projects (e.g., modifying access points was recommended corridor-wide and is also included in some of the location-specific bundles), while others were grouped into corridor-wide project bundles. Figure 1 summarizes the location of the project bundles. Attachment “A” contains descriptions of the action items in each bundle.

## Project Ranking Process

Individual projects were ranked based on six criteria:

- A. Access/Connectivity
- B. Ease of Implementation
- C. Economic Development Potential
- D. Impacts to Motor Vehicle Capacity
- E. Safety
- F. Vulnerable Populations

Each project was assigned a score of zero, one, or two for each criteria based on how effectively each project met the intent of the criteria in question, with a higher score indicating the project better met the criteria. Table 1 summarizes the scoring criteria and thresholds used in this process.



**Proposed Project Bundles  
Garden City, Idaho**

**Figure  
1**

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**Table 1 Project Ranking Criteria**

Criteria	Basis for Scoring	Score Thresholds		
		Score of 0	Score of 1	Score of 2
Access/Connectivity	Number of key destination points located within walking distance of the project <sup>1</sup>	Few key destination points	Moderate number of key destination points	High number of key destination points
Ease of Implementation	Predicted ease with which the project could be implemented <sup>2</sup>	Highly difficult to implement	Moderately difficult to implement	Easy to implement
Economic Development Potential	Number of key revitalization areas located within walking distance of the project <sup>3</sup>	Few key revitalization areas	Moderate number of key revitalization areas	High number of key revitalization areas
Impacts to Motor Vehicle Capacity	Potential effect of project on motor vehicle capacity	Moderate reduction in motor vehicle capacity	Low reduction in motor vehicle capacity	No reduction in motor vehicle capacity
Safety	Number of bicycle and pedestrian crashes located within walking distance of the project and predicted ability of the project to address a known risk factor <sup>4</sup>	Few crash incidents/no known risk factors addressed	Moderate number of crash incidents/known risk factor addressed	High number or crash incidents/known risk factor addressed
Vulnerable Populations	Number of vulnerable populations living within 1/4 mile of the project <sup>5</sup>	No vulnerable population groups	One vulnerable population group	Two vulnerable population groups

<sup>1</sup>Key destination points pulled from "Walking Priority Destinations" shapefile provided by COMPASS. Walking distance is defined as a 1/2-mile buffer around the project area. Key destination points within 1/4 mile of the project are given greater weight than key destination points located 1/4 to 1/2 mile from the project.

<sup>2</sup>Factors taken into consideration include cost, construction disruption, number of agencies involved, maintenance requirements, and consistency with adopted ordinances/plans/studies. Rough cost estimates were established for each individual project to help determine ease of implementation.

<sup>3</sup>Key revitalization areas are defined as areas identified for redevelopment in Garden City's 2006 Comprehensive Plan and Land Use Map. Walking distance is defined as a 1/2-mile buffer around the project area. Key revitalization areas within 1/4 mile of the project are given greater weight than key revitalization areas located 1/4 to 1/2 mile from the project.

<sup>4</sup>A known risk factor is defined as a factor that has contributed to past bike/ped crash incident in the area. Crash data sourced from "Bike/Ped Crash" shapefile provided by COMPASS showing crashes from 2007 to present. Walking distance is defined as a 1/2-mile buffer around the project area. Crash incidents within 1/4 mile of the project are given greater weight than crash incidents located 1/4 to 1/2 mile from the project.

<sup>5</sup>Vulnerable population groups are defined by age and income. Census data from the 2014 American Community Survey was used to establish the percent of vulnerable populations living in each census block group in Garden City. If more than 25% of the population living within a census block group was made up of individuals under the age of 18 and over the age of 65, then the census block group contained a vulnerable population group. If more than 50% of families living within a census block group fell into the bottom 25% of incomes earned in Ada County, then the census block group contained a vulnerable population group.

## RESULTS

Individual projects within each of the project bundles were scored based on the six project ranking criteria. The overall rankings of the bundles are summarized in Table 2 and shown in Figure 2. The score for each criterion for each project within the bundle is included in Attachment "B." Table 2 also

includes our recommendation for the bundles that the project team should consider moving into the next phase of this project. These recommendations have been revised from those in the draft memorandum based on feedback from the project team.

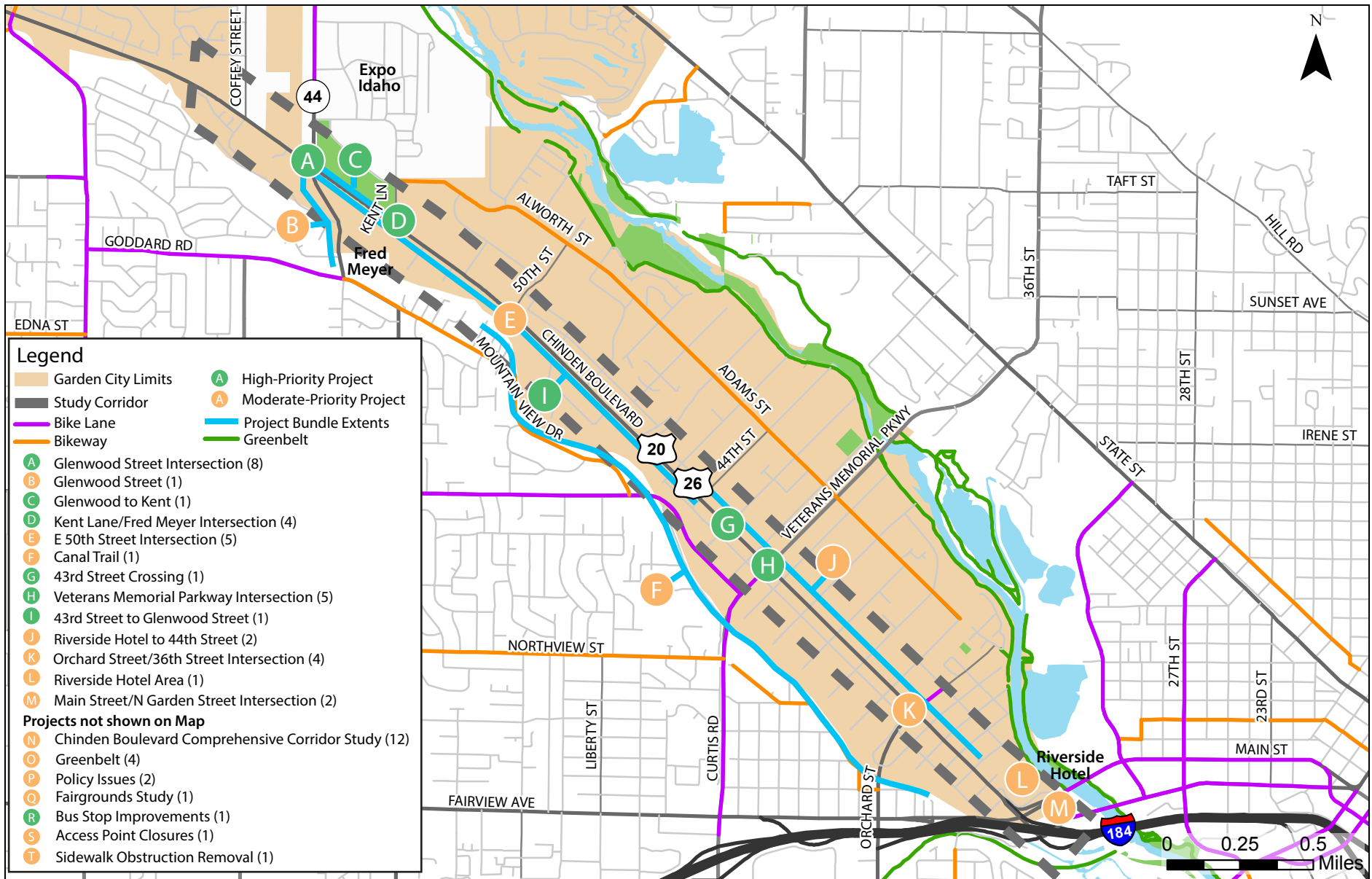
**Table 2 Revised Ranking Results of Project Bundles**

	Bundle	Average Score	Recommended for Consideration for Next Phase
A	Glenwood Street Intersection	8	Yes
B	Glenwood Street	10	No <sup>1</sup>
C	Glenwood to Kent	8	Yes
D	Kent Lane/Fred Meyer Intersection	8	Yes
E	E 50th Street Intersection	7	No
F	Canal Trail	10 <sup>1</sup>	No <sup>1</sup>
G	43 <sup>rd</sup> Street Crossing	9	Yes
H	Veterans Memorial Parkway Intersection	9	Yes
I	43 <sup>rd</sup> Street to Glenwood Street	10	Yes
J	Riverside Hotel to 44th Street	11	No <sup>2</sup>
K	Orchard Street/36th Street Intersection	6	No
L	Riverside Hotel Area	5	No
M	Main Street/N Garden Street Intersection	6	No
N	Chinden Boulevard Comprehensive Corridor Study	7	No <sup>2</sup>
O	Greenbelt	9	No <sup>3</sup>
P	Policy Issues	12	No <sup>2</sup>
Q	Fairgrounds Study	9	No <sup>2</sup>
R	Bus Stop Improvements	12	Yes
S	Access Point Closures	9	No <sup>1</sup>
T	Sidewalk Obstruction Removal	11	No <sup>1</sup>

<sup>1</sup>The potential cost and steps necessary to implement these projects may make them more difficult than the current prioritization criteria shows.

<sup>2</sup>These bundles primarily contain policy or study related items and therefore may not be suitable for the next phase of this project.

<sup>3</sup>Many elements of this project bundle have already been addressed by Garden City and ACHD.



**Prioritized Project Bundles  
Garden City, Idaho**

**Figure  
2**

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## PHASE II PROJECTS

Project team members have reviewed the project bundles and their associated rankings. Based on their feedback, the following projects have been selected to move forward for further development in Phase II of this project:

- A. Glenwood to Kent (Bundle C)
  - a. Consideration will also be given to a connection to the existing bus stop
- B. 43<sup>rd</sup> Street to Glenwood Street (Bundle I)
  - a. This will be broken into two separate projects to facilitate implementation: 43<sup>rd</sup> Street to 50<sup>th</sup> Street and 50<sup>th</sup> Street to Glenwood Street
- C. 43<sup>rd</sup> Street Crossing (Bundle G)

These projects were selected because the project team believes they have the potential for near-term implementation and provide a significant benefit to walking and biking along the corridor.

The exact scope of Phase II of this project will be verified with COMPASS before work begins.

Attachment A FHWA Action Items Spreadsheet

KAI Number	Location	FHWA Recommendation	Priority	Within Project limits of Key Number 13928 (Mill & Inlay)?	ITD Priority	ITD Response	Garden City Priority	Garden City Response	Action Items
<b>A. Glenwood Street Intersection</b>									
A1	Main Street/N. Garden Street Intersection	In general, there are too many access points along Chinden Boulevard and many are unused. Close unused access points to consolidate access.		Yes	Low	Access Points are reviewed when a permit is applied for.	High	The number of uncontrolled access points are dangerous. Chinden is already developed, yet more traffic is being added to Chinden. Closures of access points are not currently being requested by ITD at the time of redevelopment.	ITD and Garden City will work together when redevelopment occurs to demonstrate support or access closures where appropriate.
A2	Glenwood Street Intersection	Provide ADA accessible features at all corners of the intersection.		Yes	Low	None of the corners of this intersection show up on the deficient list of ADA ramps.	Medium		
A3	Orchard Street/36th Street Intersection	At bus stops, improve signing including additional bus route information. Add benches.		Yes	n/a	VRT jurisdiction.	Medium	Garden City would request that VRT work with Garden City to determine appropriateness and viability with current and future land use.	Garden City is following up with VRT.
A4	Glenwood Street Intersection	Review value of all free rights and remove unnecessary ones.	Low	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		How is value judged? The separate free rights on Glenwood at Chinden accommodate turning movements in excess of 90 degrees. The free right to Orchard Avenue southbound is an otherwise standard 4-leg intersection.	High		New D3 Traffic Engineer to review status of free-running right turn lanes on Chinden. Prior D3 Traffic Engineer recommended keeping free-running right turn lanes when a transition lane is provided; this is the case at Chinden/Glenwood but not for Orchard.
		Add Pedestrian Crossing signs and advance warning signs for crosswalks in free-running rights.	Yes	High	Could add as part of project Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184. Or done directly by District 3.	High	ITD District 3 Traffic Engineer will review along with review of all free running right turns identified in the corridor.		
A5	Glenwood Street Intersection	Remove right turn lane.		Yes	Low	ITD does not concur with removing free running right turn lanes that flow into auxiliary/receiving lanes such as those exiting Glenwood Street.	Medium		ITD D3 Traffic Engineer will review status of free-running right turn lanes on Chinden. Prior D3 Traffic Engineer recommended keeping free-running right turn lanes when a transition lane is provided; this is the case at Chinden/Glenwood but not for Orchard.
		As the prior three photos show, bike lanes should be provided between the right turn lanes and the through lanes.	Yes	Low	Insufficient R/W to do both bicycle lane and right turn lane. There is no marked bike lane on this roadway segment.	High	This recommendation is referring to the southbound outside lane on Glenwood that connects to Chinden. The group discussed this and did not identify a solution at this time.		
A6	Glenwood Street Intersection	This pathway needs better maintenance. The corner needs protection from turning vehicular movements. Currently there is no barrier and the turning radius is too wide so vehicles turn right at fairly high turning speeds. Consider removing right turn and adding a bulbout to make waiting pedestrians and bicyclists more visible. Currently pedestrians stay out of the sight triangle due to pavement encroachment onto pathway and thus are not seen.		Yes	Low	The right turn lane easily meets the right turn lane warrant found in the Traffic Manual. The park fence is actually what affects the sight triangle.	High	This intersection has an elevated number of users including Revolutions Concert House, Fair, Capital High School Students; etc. People are crossing to go to restaurants or parking. The pedestrians include children and sometimes inebriated pedestrians. This intersection receives numerous community complaints, and the police note this as a very dangerous intersection.	In the short term, Garden City will contact about Ada County to request that they trim the trees and move the fence at the corner. The group thought these two actions would increase the visibility of pedestrians at the corner. The group discussed this at length and thought that more information was needed to understand if there is a larger problem with the infrastructure at that corner.
A7	General - Chinden Blvd	Align pedestrian crossing signals, curb ramps and crosswalks so that they are accessible and logical.	High	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Overly generic recommendation. Ensure proper placement of pedestrian signal activation buttons.	High		ITD has inventoried existing curb ramps and corners in the corridor and will be addressing those out of compliance in Project Key Number 13928. Not all corners without existing curb ramps will be address in this project.
A8	Glenwood Street Intersection	The sign prohibiting pedestrians on the southeast side of Glenwood Street should be moved closer to the intersection; additional signing/guidance for pedestrians should be installed.	No	n/a	ACHD jurisdiction.	low		ACHD will work with Garden City regarding this request in their community programs yearly request	
<b>B. Glenwood Street</b>									
B1	General - Chinden Blvd and Glenwood St.	Construct continuation of pathway on the East side of Glenwood Street as a shoulder pathway or sidewalk.	Medium	No		This would have to be on Ada County property. Insufficient R/W on Chinden in the vicinity of the intersection with Glenwood Street.	High		No specific action identified.
<b>C. Glenwood to Kent</b>									
C1	General - Chinden Blvd	Develop pathway along front of Lady Bird Park parallel to Chinden Boulevard and on the bridge on Kent Lane	Medium	No		Same as issue #6. This would provide a separate bike/ped pathway north of Chinden outside ITD R/W. Would not provide solution for issue #7.	High		No specific action identified.
<b>D. Kent Lane/Fred Meyer Intersection</b>									
D1	Kent Lane / Fred Meyer Intersection	As the prior two photos show, the bus pads should be connected to sidewalks. The bus signs should indicate the days and times of operation.		Yes	Low/High	VRT constructed two bus stops disconnected from a paved pathway.	High		Garden City will contact VRT about extending sidewalk from both bus stop pads to the corners.
D2	Kent Lane / Fred Meyer Intersection	As the prior two photos show, ADA features need to be added at this intersection. This is a heavily used crossing. Create sidewalk or safe pathway for pedestrians using this crossing.	Yes	Low	Photos don't address what particular improvements are necessary.	High	There are a high number of non motorist and ADA users at this location.		Garden City will contact VRT about extending sidewalk from bus stop pad on the northeast side to the northeast corner. ITD could then address the ADA compliance issues at the corner with a curb ramp. ACHD will follow-up to determine if Kent Lane is within their jurisdiction and the potential to provide sidewalk along Kent Lane.
D3	General - Chinden Blvd	Construction (sp) sidewalk along the North and South sides of Chinden Boulevard from Glenwood past Kent Lane connecting to the bus stops. Adjust the light/pedestrian crossing at Kent Lane / Fred Meyer as a safety project.	Medium	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		This item references page 21 which is limited to the Kent Lane intersection. With the exception of ACHD ped-light timing changes, all issues emanate from the installation of the two disconnected VRT bus stops. The south side stop merges directly on to the junction of two crosswalks. The north side stop is an island unconnected from all pavement and lacks a safety barrier on its north side. A sidewalk should connect this stop to the intersection.	High		Joint ITD-VRT financed project. Garden City to contact VRT about connecting floating bus stop pads to the corners at Kent Lane. Following that ITD could construct ADA curb ramp on the northeast corner of Kent Lane and Chinden. ITD and ACHD are reviewing traffic light timing to determine if adjustments to the light cycle are needed for pedestrians crossing. No other action identified to address sidewalk on North and South sides of Chinden from the bus stops by Kent Lane to the Chinden/Glenwood intersection.
D4	General - Chinden Blvd	Align pedestrian crossing signals, curb ramps and crosswalks so that they are accessible and logical.	High	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Overly generic recommendation. Ensure proper placement of pedestrian signal activation buttons.	High		ITD has inventoried existing curb ramps and corners in the corridor and will be addressing those out of compliance in Project Key Number 13928. Not all corners without existing curb ramps will be address in this project.
<b>E. E 50th Street Intersection</b>									
E1	Main Street/N. Garden Street Intersection	In general, there are too many access points along Chinden Boulevard and many are unused. Close unused access points to consolidate access.		Yes	Low	Access Points are reviewed when a permit is applied for.	High	The number of uncontrolled access points are dangerous. Chinden is already developed, yet more traffic is being added to Chinden. Closures of access points are not currently being requested by ITD at the time of redevelopment.	ITD and Garden City will work together when redevelopment occurs to demonstrate support or access closures where appropriate.
E2	Orchard Street/36th Street Intersection	At bus stops, improve signing including additional bus route information. Add benches.		Yes	n/a	VRT jurisdiction.	Medium	Garden City would request that VRT work with Garden City to determine appropriateness and viability with current and future land use.	Garden City is following up with VRT.
E3	General - Chinden Blvd and 50th Street	Partner with ITD on 50th Street pedestrian connection from existing sidewalks.	High	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Primary issue is on the ACHD side of this intersection. Placing a curb structure on the northwest corner would provide some protection to the wood power pole and metal signal pole. The wood power pole had been struck within the last week and larger splinters were still visible.	High		Group discussed this intersection at length. Redevelopment of the northwest corner plot by West Vet will include curb, gutter and sidewalk along 50th and Chinden. Garden City will provide most recent development plans to ITD to allow for coordination on any improvements to the northeast corner (removing obstructions and addressing lack of pedestrian area along Chinden). ACHD and Garden City also discussed the possibility of moving the pedestrian crossing to a different location on 50th (to the North) to provide a safer crossing.
E4	E. 50th Street Intersection	The pedestrian push button on the northwest side on intersection should be raised to meet ADA standards.		Yes	High	This can be a part of project Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184	low		ITD will address this as part of Project Key Number 13928

KAI Number	Location	FHWA Recommendation	Priority	Within Project limits of Key Number 13928 (Mill & Inlay)?	ITD Priority	ITD Response	Garden City Priority	Garden City Response	Action Items
E5	E. 50th Street Intersection	Illumination limited in this rural segment. Recommend increasing illumination as development occurs.		Yes	Low	Consider as part of a larger corridor planning effort.		Note: "Redevelopment" is unlikely. This area is already developed with new development. 50th Street is one of the main streets of Garden City.	Group discussed doing a corridor plan for the entire Chinden corridor within Garden City to develop clear and consistent plan for the corridor to address landscaping, drainage, sidewalks, lighting, etc. Garden City will follow-up with request to COMPASS to do a corridor plan
<b>F. Canal Trail</b>									
F1	General - Chinden Blvd	Explore possibility of a pathway along the canal bank on the south side of Chinden Boulevard from 50th Street. Connect this into the Greenbelt at The Riverside Hotel.	n/a	No		Non-ITD issue.	Medium	This is in planning documents	Identified in Garden City planning documents, but no specific action identified.
<b>G. 43rd Street Crossing</b>									
G1	General - Chinden Blvd	Construct crossings near 31st - 33rd, near 38th - 39th and near 43rd Streets. Explore:					High		ACHD is evaluating crossings at 33rd & 35th during the 2015 Scoping process. Scoping from Brown to the Greenbelt
		--- Mid-block crossings with concrete pad and fences, Rectangular Rapid Flashing Beacons, pavement markings and signs.	Medium	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Possible	High		Same as above
		---HAWK (High-Intensity Activated crossWalk beacon) signals with ramps pavement markings and signage.	Medium	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Possible	High		Same as above
		---Full traffic signal providing vehicle access.	Low	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		No data to warrant any additional traffic signal installations.	High	FTA funding has been identified as a potential funding source	Same as above
<b>H. Veterans Memorial Parkway Intersection</b>									
H2	Veterans Memorial Parkway (VMP) Intersection	Add ADA features at each corner of intersection.		Yes	High	These will be a part of project Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184	High		ITD will address ADA compliance issues as part of Project Key Number 13928
H3	Veterans Memorial Parkway (VMP) Intersection	The shoulders approaching VMP are very narrow; investigate narrowing lanes to accommodate bike lanes.		Yes	Low	Need to maintain design consistency in the corridor.	High	Chinden serves a high volume of non motorized users and is a road that runs through the City's Center. The road should accommodate all users and the community	ITD will look at potential to "shave" sidewalk to increase shoulder width in this area.
H4	Orchard Street/36th Street Intersection	At bus stops, improve signing including additional bus route information. Add benches.		Yes	n/a	VRT jurisdiction.	Medium	Garden City would request that VRT work with Garden City to determine appropriateness and viability with current and future land use.	Garden City is following up with VRT.
H5	Veterans Memorial Parkway (VMP) Intersection	Relocate mailbox in sidewalk.		Yes	Low	Mailbox is blocking sidewalk and could be moved to the back of the sidewalk. Coordinate with property owner and USPS.	High	Garden City has contacted USPS about non compliance. Garden City has also requested ITD's pertinent codes and policies from ITD. Garden City will formally enforce when we receive the codes from ITD.	Garden City and ITD will coordinate with USPS
<b>I. 43rd Street to Glenwood Street</b>									
I1	General - Chinden Blvd	Create a safer north side walking space from 44th Street to the west. Explore possibility of adding a combination of extruded curb, shoulder, sidewalk walkway from 44th Street west to Glenwood Street on the north side of Chinden Boulevard (similar to the pathway on State Street).	Low	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Unsure why only one side of the street was targeted. The recommendation might result in the need to install urban stormwater facilities.	High		No specific action identified.
<b>J. Riverside Hotel to 44th Street</b>									
J1	Chinden Boulevard and The Riverside Hotel	Smooth the paved asphalt sidewalk adjacent to concrete section (roto-mill-fill) from approximately The Riverside Hotel to 44th Street. Repair or smooth all curb ramp access at intersections.		Yes	High	Encourage Garden City to apply for grants to replace the bituminous strips with concrete.	Medium	Garden City would like this to be the location of the sidewalk or landscaped. If this is Garden City's responsibility, will Garden City be allowed to do this? Can the asphalt be removed during the Rotomill and Inlay project?	Garden City has requested an agreement with ITD regarding future redevelopment to address landscape/sidewalk specifications
J2	Veterans Memorial Parkway (VMP) Intersection	In general, remove obstructions in the sidewalk from The Riverside Hotel to 44th Street.	Maybe		Low	There is not a list of these general obstructions. In the walk through, the issues I remember were all on E 36th Street.		Need list. Otherwise Code Enforcement will be directed to enforce as they identify issues.	Obstructions need to be catalogued for Garden City Code Enforcement to address
<b>K. Orchard Street/36th Street Intersection</b>									
K1	Main Street/N. Garden Street Intersection	In general, there are too many access points along Chinden Boulevard and many are unused. Close unused access points to consolidate access.		Yes	Low	Access Points are reviewed when a permit is applied for.	High	The number of uncontrolled access points are dangerous. Chinden is already developed, yet more traffic is being added to Chinden. Closures of access points are not currently being requested by ITD at the time of redevelopment.	ITD and Garden City will work together when redevelopment occurs to demonstrate support or access closures where appropriate.
K2	Orchard Street/36th Street Intersection	At bus stops, improve signing including additional bus route information. Add benches.		Yes	n/a	VRT jurisdiction.	Medium	Garden City would request that VRT work with Garden City to determine appropriateness and viability with current and future land use.	Garden City is following up with VRT.
K3	General - Chinden Blvd	Review value of all free rights and remove unnecessary ones.	Low	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		How is value judged? The separate free rights on Glenwood at Chinden accommodate turning movements in excess of 90 degrees. The free right to Orchard Avenue southbound is an otherwise standard 4-leg intersection.	High		New D3 Traffic Engineer to review status of free-running right turn lanes on Chinden. Prior D3 Traffic Engineer recommended keeping free-running right turn lanes when a transition lane is provided; this is the case at Chinden/Glenwood but not for Orchard.
		To improve visibility, move the existing crosswalk to the west, and install MUTCD compliant pedestrian crossing signs and advance warning signs. Replace the BIKE ROUTE sign with a wayfinding sign.		Yes	Medium	Part of a larger issue of whether to maintain the free running right turn lane on to Orchard Street southbound.	High	How many pedestrians/ bikes use this? What would be the delay if altered?	ITD D3 Traffic Engineer will review status of free-running right turn lanes on Chinden. Prior D3 Traffic Engineer recommended keeping free-running right turn lanes when a transition lane is provided; this is the case at Chinden/Glenwood but not for Orchard.
K4	General - Chinden Blvd	Align pedestrian crossing signals, curb ramps and crosswalks so that they are accessible and logical.	High	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Overly generic recommendation. Ensure proper placement of pedestrian signal activation buttons.	High		ITD has inventoried existing curb ramps and corners in the corridor and will be addressing those out of compliance in Project Key Number 13928. Not all corners without existing curb ramps will be address in this project.
<b>L. Riverside Hotel Area</b>									

KAI Number	Location	FHWA Recommendation	Priority	Within Project limits of Key Number 13928 (Mill & Inlay)?	ITD Priority	ITD Response	Garden City Priority	Garden City Response	Action Items
L1	Chinden Boulevard and The Riverside Hotel	Create landscape strip to buffer pedestrians from motor vehicles and as green space for infiltration. Short term: Add potted trees on the outside concrete sidewalk section.		Yes	Low	Develop landscaping plan prior to funding search. Encourage Garden City to apply for grants to remove existing concrete sidewalks and replace with vegetation.	Medium	A draft plan has been created. Additionally, Garden City's Comprehensive Plan identifies Chinden with landscaping and detached sidewalks. Garden City looks to ITD for permission to allow landscaping and sidewalks in ITD's ROW. Garden City requests the documentation necessary to facilitate this during redevelopment. Does ITD have a drainage plan for Chinden?	Group discussed doing a corridor plan for the entire Chinden corridor within Garden City to develop clear and consistent plan for the corridor to address landscaping, drainage, sidewalks, lighting, etc. Garden City will follow-up with request to COMPASS to do a corridor plan.
<b>M. Main Street/N Garden Street Intersection</b>									
M1	Main Street/N. Garden Street Intersection	In general, there are too many access points along Chinden Boulevard and many are unused. Close unused access points to consolidate access.		Yes	Low	Access Points are reviewed when a permit is applied for.	High	The number of uncontrolled access points are dangerous. Chinden is already developed, yet more traffic is being added to Chinden. Closures of access points are not currently being requested by ITD at the time of redevelopment.	ITD and Garden City will work together when redevelopment occurs to demonstrate support or access closures where appropriate.
M2	General - Chinden Blvd	Align pedestrian crossing signals, curb ramps and crosswalks so that they are accessible and logical.	High	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Overly generic recommendation. Ensure proper placement of pedestrian signal activation buttons.	High		ITD has inventoried existing curb ramps and corners in the corridor and will be addressing those out of compliance in Project Key Number 13928. Not all corners without existing curb ramps will be address in this project.
<b>N. Chinden Boulevard Comprehensive Corridor Study</b>									
N1	Main Street/N. Garden Street Intersection	In general, there are too many access points along Chinden Boulevard and many are unused. Close unused access points to consolidate access.		Yes	Low	Access Points are reviewed when a permit is applied for.	High	The number of uncontrolled access points are dangerous. Chinden is already developed, yet more traffic is being added to Chinden. Closures of access points are not currently being requested by ITD at the time of redevelopment.	ITD and Garden City will work together when redevelopment occurs to demonstrate support or access closures where appropriate.
N2	General - Chinden Blvd	Explore implementing lower speed limits traveling from VMP to the east.	Low	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Speed study would be required. Speed study may indicate a higher speed limit is necessary.	High	If a speed study only looks at capacity and not other systems it may be an improper tool to utilize	No specific action identified. Although speed limit is set at 35MPH, vehicles travel faster than the posted limit. Higher traveling speeds impact the safety (perceived and real) of bike and pedestrian users in the corridor. Faster traveling speeds also impact the downtown character of Garden City. Consider design options to change driver expectations in the corridor.
N2	General - Chinden Blvd	Explore traffic calming for Chinden Boulevard to encourage safe 35 MPH travel.	Medium	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Overly generic recommendation. What options do they have in mind?	High		Same as above
N3	General - Chinden Blvd	Restripe Chinden Boulevard and narrow travel lanes to 11 feet.	Medium	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Standard Drawing I-21-A shows a lane width of 12 feet for a standard cross-section. Change will require ITD/Local cooperation. Current striping is approximately 14 foot outside lanes, 12 foot inside lanes and a 14 foot painted median/TWLT.	Medium	Garden City would request that ITD explore this.	ITD D3 Traffic Engineer will review as part of Project Key Number 13928
N4-N6	Chinden Boulevard and The Riverside Hotel	Create landscape strip to buffer pedestrians from motor vehicles and as green space for infiltration. Short term: Add potted trees on the outside concrete sidewalk section.		Yes	Low	Develop landscaping plan prior to funding search. Encourage Garden City to apply for grants to remove existing concrete sidewalks and replace with vegetation.	Medium	A draft plan has been created. Additionally, Garden City's Comprehensive Plan identifies Chinden with landscaping and detached sidewalks. Garden City looks to ITD for permission to allow landscaping and sidewalks in ITD's ROW. Garden City requests the documentation necessary to facilitate this during redevelopment. Does ITD have a drainage plan for Chinden?	Group discussed doing a corridor plan for the entire Chinden corridor within Garden City to develop clear and consistent plan for the corridor to address landscaping, drainage, sidewalks, lighting, etc. Garden City will follow-up with request to COMPASS to do a corridor plan.
N7-N9	General - Chinden Blvd	Use additional space to add bike lanes along both sides of Chinden Boulevard. Recommend 5 - 6 foot bike lanes on both sides of Chinden Boulevard. At a minimum, stripe a wider shoulder to provide refuge for bicyclists and pedestrians (if space is not available).	Low	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Curb to curb width from 44th Street to Jct I-184 is 70 feet (see M-7103(001) dated 1974). Current striping is approximately 14 foot outside lanes, 12 foot inside lanes and a 14 foot painted median/TWLT. This leaves about a 2-foot distance from fog line to curb. Reducing the outside lane width to 12 feet makes for a four foot shoulder.	High		ITD D3 Traffic Engineer will review as part of Project Key Number 13928
N10-N12	General - Chinden Blvd	Consider installing medians on Chinden Boulevard with turn lanes in the median where necessary. The center turn lane currently runs the entire length of the corridor, but it is not needed and it decreases safety for bicyclists and pedestrians. Medians can also double as green space for storm water drainage.	Low	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		There is no data I know of that says the center turn lane is not needed. I don't know what design vehicle was used for the median u-turn movements on Eagle Road. However, Eagle Road has 12' lanes and a 17' median structure or an 11' left-turn lane with 6' for an attenuated median structure. Narrowing lanes per recommendations #1 and #2 would increase the probability of median u-turn movements entering the new bike lanes. Using the median as green space for storm water drainage requires either urban stormwater facilities or altering the crown of the cross-section from centerline to edge of pavement.	High	Studies and data may be helpful to demonstrate that the center lane is needed.	Group proposed a comprehensive corridor study to identify and establish clear consistent vision for the Chinden corridor. Garden City will follow-up with COMPASS to request planning study for Chinden corridor.
<b>O. Greenbelt</b>									
O1	General - Greenbelt	Bridge the Greenbelt gap at 52nd Street	n/a	No		OFF-SYSTEM. Non-ITD issue.	Medium	Garden City has approached the owner of the adjacent property a number of times. At this point in time, the connection is not feasible. Garden City will continue efforts.	Garden City is working on this.
O2	General - Greenbelt	Develop MOU or other agreement to clarify maintenance and operational responsibilities along this multi-jurisdictional section of the Greenbelt (where the Greenbelt crosses the river by traversing the island just east of the racetrack and west of N. Plantation Drive) (i.e., repair, plowing, and clean-up).	n/a	No		OFF-SYSTEM. Non-ITD issue.	High	There is a draft agreement between Ada County, Boise and Garden City.	Draft agreement in process, but stalled as none of the parties are completely satisfied with it.
O3	General - Greenbelt	Add lighting to Greenbelt for safer night travel.	n/a	No		OFF-SYSTEM. Non-ITD issue.	low	Garden City policies conflict with this recommendation.	No specific action identified as this recommendation conflicts with Garden City policy about night time travel on the Greenbelt.
O4	General - Greenbelt	There are several points of access to the Greenbelt from local roads in Garden City that have barriers, are not well signed, and are not ADA compliant. Fix all the issues around the points of access to the Greenbelt.	n/a	No		OFF-SYSTEM. Non-ITD issue.	High		No specific action identified.
<b>P. Policy Issues</b>									
P1	General - Chinden Blvd	Implement clean-up strategies on all roadways and sidewalks in Garden City.	n/a	Maybe		I can understand sweeping sidewalks but I am unsure how this translates to roadways beyond current ITD street sweeping.	High	Noted to Garden City Code Enforcement	Garden City has informed the Code Enforcement section of this issue.
P2	General - Chinden Blvd	Begin enforcing restrictions on sidewalk obstructions on all roadways and sidewalks in Garden City.	High	Maybe		Make corrections on ITD jurisdiction sidewalks.	High	Garden City has requested ITD regulations and policies to assist in enforcement in ITD right-of-ways.	ITD will send Garden City appropriate codes and policies regarding obstructions in ROW

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<b>Q. Fairgrounds Study</b>									
Q1	General - Chinden Blvd	Examine pedestrian issues that come up around time period of heavy use of fairgrounds (summer and fall).	n/a	No		OFF-SYSTEM. Ada County only issue.	High		No specific action identified.
<b>R. Bus Stop Improvements</b>									
R1	Orchard Street/36th Street Intersection	At bus stops, improve signing including additional bus route information. Add benches.		Yes	n/a	VRT jurisdiction.	Medium	Garden City would request that VRT work with Garden City to determine appropriateness and viability with current and future land use.	Garden City is following up with VRT.
<b>S. Access Point Closures</b>									
S1	Main Street/N. Garden Street Intersection	In general, there are too many access points along Chinden Boulevard and many are unused. Close unused access points to consolidate access.		Yes	Low	Access Points are reviewed when a permit is applied for.	High	The number of uncontrolled access points are dangerous. Chinden is already developed, yet more traffic is being added to Chinden. Closures of access points are not currently being requested by ITD at the time of redevelopment.	ITD and Garden City will work together when redevelopment occurs to demonstrate support or access closures where appropriate.
<b>T. Sidewalk Obstruction Removal</b>									
T1	Veterans Memorial Parkway (VMP) Intersection	In general, remove obstructions in the sidewalk from The Riverside Hotel to 44th Street.		Maybe	Low	There is not a list of these general obstructions. In the walk through, the issues I remember were all on E 36th Street.		Need list. Otherwise Code Enforcement will be directed to enforce as they identify issues.	Obstructions need to be catalogued for Garden City Code Enforcement to address
<b>Projects Not Considered for Advancement</b>									
	Adams Street	Adams Street is the only street that offers a nearly through connection other than Chinden Boulevard. Consider making Adams		No	n/a	ACHD jurisdiction.	High	This will be done during redevelopment. FACTS may be able to approach the property owner for a	This is a longer term action that Garden City and ACHD are both aware of.
	Adams Street	Retime light at Adams Street and VMP to allow more time for pedestrian crossing.		No	n/a	ACHD jurisdiction.	Medium		ACHD will review pedestrian signal crossing times for possible change.
	Chinden Boulevard and The Riverside Hotel	Consider wayfinding signage to Osage Street for cyclists who prefer to not ride on Chinden Boulevard.		Yes	Low	Only after Osage Street is identified as a bicycle route in the Ada County Bike Map.	Medium	Ideally, Garden City would like to see Osage as access to businesses with their Chinden access closed. Garden City would also like to see Osage utilized by a mix of users, and be utilized as an economic development tool. Garden City requests that ACHD evaluate the ability for Garden City to add treatments similar to the Basque Block in Boise. For the time being, Adams Street or the Greenbelt may be a better alternative.	Garden City has requested ACHD to develop an Artisan Path using asphalt treatment similar to the Basque Block in Boise. The City has received feedback that there are businesses whose patrons would like to choose non motorized modes of transportation, but do not feel comfortable navigating the roadways. Garden City Park's Committee has suggested an 'arts and history' pathway, to focus on Garden City's economic development strategies and link businesses that have increased bike and pedestrian usage such as the wine district, breweries, and entertainment venues to the Greenbelt. The proposed path centers on Osage in locations between Main and 37th Streets and between 42nd and 44th.
	E. 50th Street Intersection	Add ADA features at existing pedestrian crossings.		Yes	High	These will be a part of project Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184.	High		ITD will address this as part of Project Key Number 13928
	E. 50th Street Intersection	Long term: Control or consolidate business accesses in the rural section.		Yes	Low	Access Points are reviewed when a permit is applied for.		Closures of access points are not currently being requested by ITD at the time of redevelopment.	ITD and Garden City will work together when redevelopment occurs to demonstrate support or access closures where appropriate.
	E. 50th Street Intersection	As the prior five photos show, existing sidewalks should be extended and connected to the crosswalks and to any extruded curb shoulder walkways that may be added.		No	n/a	ACHD jurisdiction.	High	Garden City requests ACHD to consider scoping a crosswalk on 50th Street so that users do not have to access Chinden to cross. This is marked as a high priority due to current construction of West Vet. There may be some savings if done in conjunction.	Group discussed this intersection at length. Redevelopment of the northwest corner plot by West Vet will include curb, gutter and sidewalk along 50th and Chinden. Garden City will provide most recent development plans to ITD to allow for coordination on any improvements to the northeast corner (removing obstructions and addressing lack of pedestrian area along Chinden). ACHD and Garden City also discussed the possibility of moving the pedestrian crossing to a different location on 50th (to the North) to provide a safer crossing.
	E. 50th Street Intersection	Remove the obstructions.		No	n/a	ACHD jurisdiction.	Medium	50th street is one of the most comfortable streets in Garden City. It is landscaped and has continuous sidewalk from the River to Chinden with the exception of the Moxie site. This should be a high priority, however, the Moxie Java is not likely to redevelop. This leaves Garden City without means to have the obstructions removed.	Group discussed this intersection at length. Redevelopment of the northwest corner plot by West Vet will include curb, gutter and sidewalk along 50th and Chinden. Garden City will provide most recent development plans to ITD to allow for coordination on any improvements to the northeast corner (removing obstructions and addressing lack of pedestrian area along Chinden). ACHD and Garden City also discussed the possibility of moving the pedestrian crossing to a different location on 50th (to the North) to provide a safer crossing.
	E. 50th Street Intersection	Few crashes in the segment from 43rd Street to E. 50th Street due to limited access to bench and little residential development.		Yes	n/a	Observation			Observation. No action specified
	General - Adams Street	Connect Adams Street between 37th and 36th Streets with a bike and pedestrian facility as soon as possible. This is a missing link in the bike and pedestrian network and would serve as a major connection to the Greenbelt.	n/a	No		OFF-SYSTEM. ACHD only issue.	High		Garden City has requested ACHD (as part of their community programs) to remove the center lane on Adams, add bike route on Adams, and as part of the scope, to identify bike / pedestrian connection to connect 36th and 37th streets. FY2016 ACHD is conducting a concept evaluation on Allsworth/Adams
	General - Alworth Street	Explore bike lanes instead of a two-way left turn lane on Alworth Street; implement at next overlay or seal.	n/a	No		OFF-SYSTEM. ACHD only issue.	High		No specific action identified.
	General - Chinden Blvd	Adjust/lengthen light cycle for pedestrians along full corridor to improve their level of service. The highest priority is the light cycle at Fred Meyer. This is the only grocery store in the corridor. Most residents of Garden City frequent the Fred Meyer. Many employees of Fred Meyer walk to work. Also, there is a nearby senior citizen home. Many seniors and people with disabilities cross at this light on foot or in a wheelchair or motorized cart.	Medium	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		ACHD jurisdiction.	High		ITD D3 Traffic Engineer will review as part of Project Key Number 13928 and work with ACHD to coordinate
	General - Chinden Blvd	Adopt the Garden City Livable Streets Plan.	n/a	No		ACHD only issue. The ACHD website has the Garden City Livable Streets Plan project page from 2013 but does not link to the Garden City Livable Streets Plan.	High		No specific action identified.
	General - Chinden Blvd	Add Garden City to ACHD bike map.	n/a	No		Non-ITD issue.	Medium	Garden City has requested ACHD to add Garden City	Garden City has requested ACHD to designate Garden City as an enlargement to the ACHD bike map. ACHD will consider this request during its next iteration of the plan in 2017
	General - Greenbelt	Implement wayfinding/bike network signage and improve Greenbelt connections to the street network so the connections are clear and accessible for bicycles and pedestrians.	n/a	Maybe		Some directional signage might be placed on state facilities. Same as #10.	Medium		Garden City has requested ACHD to add wayfinding signage throughout the network, including connections between the street network and the Greenbelt.
	Glenwood Street Intersection	Replace crosswalk markings on Chinden Boulevard with continental style markings.		Yes	High	These will be a part of project Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184	low		ITD will address this as part of Project Key Number 13928
	Glenwood Street Intersection	On the path west of Expo Idaho, replace existing BIKE ROUTE signing with wayfinding signage.		Yes	Medium	ACHD jurisdiction.		Ada County	Garden City has requested wayfinding signages. See Recommendations tab #10
	Glenwood Street Intersection	Retime light at Glenwood Street and Chinden Boulevard to allow more time for pedestrian crossing.		Yes	n/a	District 3 Traffic Engineer to determine re-timing and forward to ACHD.	High		ITD D3 Traffic Engineer will review pedestrian signal crossing times for possible change. Recommendation to be sent to ACHD.
	Kent Lane / Fred Meyer Intersection	Retime light at Kent Lane and Chinden Boulevard to allow more time for pedestrian crossing.		Yes	Medium	District 3 Traffic Engineer to determine re-timing and forward to ACHD.	High		ITD D3 Traffic Engineer will review pedestrian signal crossing times for possible change. Recommendation to be sent to ACHD.

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	Main Street/N. Garden Street Intersection	In general, add wayfinding signage for bike and pedestrians along Chinden Boulevard and on adjacent roads to key destinations like the Greenbelt.		Maybe	Medium	Same as Recommendation #10 (improve wayfinding signage) and Garden City #5 (implement wayfinding signage).	Medium	Garden City would suggest that this could be a part of the mill and inlay project. A separate list of wayfinding signs is provided.	Garden City has requested wayfinding signages. See Recommendations tab #10
	Main Street/N. Garden Street Intersection	Replace the BIKE ROUTE sign on Main St. with a wayfinding sign directing cyclist to the Greenbelt, Chinden Boulevard and Fairview Avenue. Remove the BIKE LANE ENDS sign.	No		n/a	OFF-SYSTEM. AHCD issue.	Medium	As there is a current ACHD / Boise project Garden City suggests this should be a high priority.	Garden City has requested wayfinding signages. See Recommendations tab #10
	Main Street/N. Garden Street Intersection	On Garden Street, replace BIKE ROUTE signs with wayfinding signs.	No		n/a	OFF-SYSTEM. AHCD issue.	Medium	As there is a current ACHD / Boise project Garden City suggests this should be a high priority.	Garden City has requested wayfinding signages. See Recommendations tab #10
	Main Street/N. Garden Street Intersection	Close the Main Street access to Joe's Crab Shack and utilize the Garden Street Access.	No		n/a	OFF-SYSTEM. AHCD issue.	Medium	Garden City recommends to ACHD to explore if this can be done with the current Boise Bike Path project	Garden City has requested ACHD to create a curb cut for greenbelt access at Main Street and to consider closing Joe's Crabshack Main Street entrance (there is an existing access on Garden Street).
	Main Street/N. Garden Street Intersection	For cyclists entering west bound Fairview Avenue, create a bike phase or install a bike signal face, as shown above, with the required Bicycle Signal sign. Note: Interim Approval is required from FHWA to use the bike signal face.	No		n/a	OFF-SYSTEM. AHCD issue.	NA	Garden City Supports this, but it is not in Garden City's jurisdiction	ACHD is exploring this option. Initial inquiries have indicated that a bike signal would be in conflict with the Idaho Stop Law.
	Main Street/N. Garden Street Intersection	Extend bike lane markings from Main Street to Fairview Avenue.	No		n/a	OFF-SYSTEM. AHCD issue.	NA	Garden City Supports this, but it is not in Garden City's jurisdiction	ACHD will follow up with this request in partnership with the city of Boise
	Main Street/N. Garden Street Intersection	Include signal detection for bikes.	No		n/a	OFF-SYSTEM. AHCD issue.	NA	Garden City Supports this, but it is not in Garden City's jurisdiction	ACHD will follow up with this request in partnership with the city of Boise
	Main Street/N. Garden Street Intersection	Chinden Boulevard on ramp (as shown) - Use the right lane as a bike lane and retain the left on-ramp lane as a general purpose lane.	No		n/a	OFF-SYSTEM. AHCD issue.		This is not in Garden City's jurisdiction. However, Garden City notes an additional option to extend the bike markings to Fairview and also to Garden Street to deter bikes from Chinden.	ACHD will follow up with this request in partnership with the city of Boise
	Main Street/N. Garden Street Intersection	The Team witnessed numerous riders violating markings/signing: riding contrary to lane use (counter flow). This is because there is no decent way to head northeast or left towards Boise from this location. Recommend converting this short segment of separated bike lane (between Whitewater Park Boulevard and ending just past here) to a two-way cycle-track. This conveys cyclists to Whitewater Park Boulevard where they can safely cross and access the bike lane on Fairview Avenue.	No		n/a	OFF-SYSTEM. AHCD issue.	Medium	For both Garden City and Boise, this area is an activity area where there are many cyclist. Garden City requests that ACHD scope this.	Garden City has requested ACHD to construct a 2-way cycle track between Garden/Main and Whitewater Park Blvd./Main. Is this one ACHD has agreed to do already?
	Main Street/N. Garden Street Intersection	On Main Street, make a curb cut at the end of the concrete barrier to allow cyclists to enter and exit bike lane.	No		n/a	OFF-SYSTEM. AHCD issue.	Medium		ACHD follow-up? Was this one that will be handled during maintenance?
	Main Street/N. Garden Street Intersection	A curb cut is also needed to access the North side Greenbelt from Main Street.	No		n/a	OFF-SYSTEM. AHCD issue.	NA	Garden City Supports this, but it is not in Garden City's jurisdiction	ACHD will follow up with this request in partnership with the city of Boise
	Main Street/N. Garden Street Intersection	Good illumination at intersection. It could be better by adding a luminaire on southeast corner (near car lot).	No		n/a	OFF-SYSTEM. AHCD issue.	NA	Garden City supports this, but it is not in Garden City's jurisdiction	ACHD will follow up with this request in partnership with the city of Boise
	Main Street/N. Garden Street Intersection	Good practice: ITD published the Street Smarts guide	No		n/a	ITD HQ publication.			Identified good practice
	Marigold and Glenwood Streets	Connection to pathway on the southeast corner needs improvement.	No		n/a	Picture appears to be the northwestern corner.	Medium	Investigate sharrow to the greenbelt	ACHD will follow up
	Marigold and Glenwood Streets	Improve signage to show Greenbelt access is under the bridge.	No		n/a	Or access is from the parking lot on the northeastern corner. Non-ITD jurisdiction.	Medium		Garden City has requested wayfinding signages. See Recommendations tab #10
	Orchard Street/36th Street Intersection	Replace marked island with bike lane if installing bike lanes the entire length of the corridor.	Yes		Low	Must make separate determination of marking bike lanes or not.	High	Reallocate existing space to be a functional component of the transportation or city systems	Will be considered as part of ITD D3 review of free-running right turn lanes.
	Orchard Street/36th Street Intersection	Retime light at 36th Street/Orchard Street and Chinden Boulevard to allow more crossing time for pedestrians	Yes		High	District 3 Traffic Engineer to determine re-timing and forward to ACHD.	High		ITD D3 Traffic Engineer will review pedestrian signal crossing times for possible change. Recommendation to be sent to ACHD.
	Orchard Street/36th Street Intersection	Replace the existing Orchard Street guide sign with an Intersection Warning sign with a street name plaque.	No		n/a	ACHD jurisdiction.	High	Where this is an easy fix, it should be prioritized.	Garden City has requested wayfinding signages. See Recommendations tab #10
	Orchard Street/36th Street Intersection	General comment for corridor: Add bike lanes between through lanes and right turn lanes.	Yes		Low	Insufficient R/W to do both bicycle lane and right turn lane. Part of corridor wide connectivity for bike lanes.	Medium		ITD is reviewing potential for bike lanes in Chinden corridor as part of Project Key Number 13928
	Orchard Street/36th Street Intersection	Refresh deteriorated pavement markings.	Maybe		High	These will be a part of project Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184	Medium		ITD will refresh pavement markings as part of Project Key Number 13928
	Orchard Street/36th Street Intersection	General comment for corridor: Use continental style crosswalk markings, similar to those used by ACHD on the side streets.	Yes		High	These will be a part of project Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184	low	Agree	ITD will restripe with continental style markings in all crosswalks in the Chinden corridor as part of the Project Key Number 13928 (to the extent of project limits).
	Orchard Street/36th Street Intersection	As the prior two photos show, the marked shoulder on north bound Orchard Street ends before the right turn lane. As the next photo shows, there are bike lanes on the north side of the intersection. Provide bike lane continuity by adding a bike lane on the southeast side of Orchard Street and remove the free right turn northbound on Orchard Street.	No		n/a	ACHD jurisdiction.	Medium	Garden City requests that ACHD scope this project	Garden City has requested that ACHD scope this project this Fall (2015). ACHD follow-up?
	Orchard Street/36th Street Intersection	To improve sight distance, remove the utility trailer on the east side of Orchard Street.	No		Low	ACHD jurisdiction.	Low	Garden City requests ACHD to explore adding a no parking sign	ACHD follow-up? Garden City also requests ACHD to add a no parking sign.
	Orchard Street/36th Street Intersection	Good practice: Good roadway illumination on urban section of corridor.	Maybe		n/a	Compliment			Identified good practice
	Osage and Stockton Streets	Explore using Osage and Stockton Streets as a bike and pedestrian dominate routes off of Chinden Boulevard. Enhance lighting along these routes. Restrict through traffic, sign access points.	No		n/a	ACHD jurisdiction.	Medium	Garden City requests that ACHD scope this project. Garden City is specifically interested in an 'Art/History' path.	Garden City has requested ACHD to consider adding Osage and Stockton to designated bike routes
	Veterans Memorial Parkway (VMP) Intersection	Add wayfinding signing to indicate that the sidewalk on the east side of VMP is a bike lane.	No		n/a	ACHD jurisdiction.	Medium	This will be included in a list of wayfinding requests to ACHD	Garden City has requested wayfinding signages. See Recommendations tab #10
	Veterans Memorial Parkway (VMP) Intersection	Improve signage on VMP to indicate how to transition to the Greenbelt.	No		n/a	ACHD jurisdiction.	Medium	This will be included in a list of wayfinding requests to ACHD	Garden City has requested wayfinding signages. See Recommendations tab #10
	Veterans Memorial Parkway (VMP) Intersection	Refresh green paint on Curtis Road bike lane	No		n/a	ACHD jurisdiction.	low	Is this anticipated in a maintenance plan?	Garden City has requested ACHD to refresh paint designating bike lanes on VMP/Curtis
	Veterans Memorial Parkway (VMP) Intersection	Good practice: Good roadway illumination at intersection and along corridor.	Maybe		n/a	Compliment	Medium		Identified good practice
	Veterans Memorial Parkway (VMP) Intersection	Good practice: Wayfinding/network signs on Curtis Road.	No		n/a	Compliment		Compliments	Identified good practice
	Veterans Memorial Parkway (VMP) Intersection	Good practice: Green paint used to designate bike lanes on north bound Curtis Road.	No		n/a	Compliments on ACHD segments.		Compliments	Identified good practice

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	Veterans Memorial Parkway (VMP) Intersection	Good practice: Well executed bike lanes on Curtis Road.		No	n/a	Compliments on ACHD segments.		Compliments	Identified good practice
	Veterans Memorial Parkway (VMP) Intersection	Good practice: SHARE the ROAD sign and wayfinding sign north bound on Curtis Road.		No	n/a	Compliments on ACHD segments.		Compliments	Identified good practice
	General - Chinden Blvd	Improve and add wayfinding signage along entire corridor and adjacent streets; especially highlighting connections to the Greenbelt as well as other key destinations and routes.	Medium	Yes, Key Number 13928 in FY2016. Mill & Inlay from Branstetter St to Jct I-184		Concur. Same as Garden City - 5.	High		<p>Garden City has requested ACHD to install change wayfinding signage in several locations and ACHD has agreed to address during upcoming maintenance. These include:</p> <p><b>High Priority</b>  Chinden &amp; Garrett- East (North) noting: Greenbelt, West Bridge  Chinden &amp; Coffey-West (South)- Bench/ Capital High School (via Mnt View /Sorrento/ Brynwood)  Chinden &amp; Coffey- East (North) noting: Marigold Street; City Hall, Library, Post Office, River Point Park  Chinden &amp; 50th East (North) noting: Police Department, Greenbelt  Chinden &amp; 43rd West (South) noting: Bench; Mountain View Elementary (via Mnt. View/ Morton)  Chinden &amp; 42nd East (North) noting: Greenbelt, Boys and Girls Club, Riverfront Park, Anser Charter School, Parkway Station  Chinden &amp; 36th East (North) noting: 36th Street Bridge to Pleasanton Ave, Whittier Elementary, Learning Lab, Head Start  Duck Lake at Greenbelt-West (South)- Bench connection (via Garrett)  Strawberry Glenn (south of River) at Greenbelt -West (South)- Connection to Bench (via Coffey)  Coffey &amp; Marigold West (South)- Connection to Bench; East to City Hall  42nd at Greenbelt West (South): Bench access (via 43rd), Boys and Girls Club, Riverfront Park, Anser Charter School, Parkway Station  Adams &amp; 43rd West (South): Bench access  36th at Greenbelt West (South) noting: Bench Access, Learning Lab, Head Start</p> <p><b>Medium Priority</b>  Replace the Bike Route sign at Garden and Main with a standardized wayfinding sign  Replace the Bike Route sign at West of Expo Idaho with a standardized wayfinding sign  Chinden 48th East (North) noting: Greenbelt, Mystic Cove Park  Chinden 34th East (North) noting: Greenbelt, White Water Wave, Training Centers, Surel's Place (via Clay)  Marigold/ Glenwood noting: Greenbelt access under bridge</p> <p><b>Other Signage</b>  VMP bike path shares sidewalk  Public Parking' directional sign pointing east Chinden/ 36th Street  Remove Bike Lane Ends sign at Garden and Main  Replace Orchard Street sign with an Intersection Warning sign with name plaque.</p>



## Attachment B Project Bundles, Scores and Rankings

KAI Number	Name	Project Description	Access/Connectivity	Ease of Implementation	Economic Development Potential	Impacts to Motor Vehicle Capacity	Safety	Vulnerable Populations	Overall Score
<b>A. Glenwood Street Intersection</b>									
A1	Access Point Closures	Work with developers to close unnecessary access points along Chinden Boulevard.	1	0	1	1	1	2	6
A2	ADA-accessible Intersection	Add ADA features at existing pedestrian crossings.	1	2	1	2	1	2	9
A3	Bus Stop Improvements	Add new signage at bus stops (include route information).	1	2	1	2	1	2	9
		Add benches at bus stops.	1	2	1	2	1	2	9
A4	Enhance or Remove Free Right Turns	Review value of all free rights and remove unnecessary ones.	1	0	1	1	1	2	6
		Add Pedestrian Crossing signs and advance warning signs for crosswalks in free-running rights.	1	2	1	1	1	2	8
A5	New Bike Lanes	Construct southbound bike lanes on Glenwood Street between Lorimer Lane and Chinden Boulevard (intersection approach).	2	0	2	1	2	2	9
A6	New Curb Extension	Construct curb extension at the northeast corner of the intersection. Consider removing right turn and adding a bulbout to make waiting pedestrians and bicyclists more visible.	1	1	1	1	1	2	7
A7	Pedestrian Crossing Improvements	Align pedestrian crossing signals, curb ramps and crosswalks so that they are accessible and logical.	1	1	1	2	1	2	8
A8	Signage Relocation	Move sign prohibiting pedestrians on the southeast side of Glenwood Street closer to the intersection.	1	2	1	2	1	2	9
		Install additional signage to help pedestrians navigate around the prohibited area.	1	2	1	2	1	2	9
<b>B. Glenwood Street</b>									
B1	New Sidewalk	Construct continuation of southbound sidewalk on the East side of Glenwood Street between Chinden Boulevard and Mountain View Drive.	2	0	2	2	2	2	10
<b>C. Glenwood to Kent</b>									
C1	New Pathway	Develop pathway along the front of Lady Bird Park (parallel to Chinden Boulevard) between Glenwood Street and Kent Lane.	2	0	1	2	1	2	8
<b>D. Kent Lane/Fred Meyer Intersection</b>									
D1	Bus Stop Improvements	Connect bus pads to existing sidewalks and improve signage (include route information).	2	2	1	2	1	2	10
D2	New Sidewalk and ADA-Accessible Intersection	Construct new eastbound and westbound sidewalks along Chinden Boulevard between Glenwood Street and Kent Lane.	2	0	1	2	1	2	8
D3	New Sidewalk	Construct northbound sidewalk on the east side of Kent Lane between Chinden Boulevard and Fairpark Lane.	1	0	0	2	1	2	6
D4	Pedestrian Crossing Improvements	Align pedestrian crossing signals, curb ramps and crosswalks so that they are accessible and logical.	2	1	1	2	1	2	9
<b>E. E 50th Street Intersection</b>									
E1	Access Point Closures	Work with developers to close unnecessary access points along Chinden Boulevard.	0	0	1	1	0	2	4
E2	Bus Stop Improvements	Add new signage at bus stops (include route information).	0	2	1	2	0	2	7
		Add benches at bus stops.	0	2	1	2	0	2	7
E3	Pedestrian Crossing Improvements	Construct sidewalk improvements on E. 50th Street at the intersection of E. 50th and Chinden Boulevard	0	0	1	2	0	2	5
E4	Pedestrian Push Button Improvements	The pedestrian push button on the northwest side of the intersection should be raised to meet ADA standards.	0	2	1	2	0	2	7
E5	Roadway Lighting Improvements	Illumination limited in this rural segment. Work with developers to add additional lighting as applicable.	0	0	1	2	0	2	5
<b>F. Canal Trail</b>									
F1	New Walkway	Develop a pathway along the canal bank on the south side of Chinden Boulevard from 50th Street to 31st Street. Connect this into the Greenbelt at The Riverside Hotel.	2	0	2	2	2	2	10
<b>G. 43rd Street Crossing</b>									
G1	New crossing near 43rd Street	Construct mid-block crossing including some combination of concrete pad and fences, rectangular rapid flashing beacons, pavement markings, signage, HAWK signals with ramp pavement markings, full and/or a traffic signal providing vehicle access.	2	0	2	1	2	2	9
<b>H. Veterans Memorial Parkway Intersection</b>									
H1	Access Point Closures	Work with developers to close unnecessary access points along Chinden Boulevard.	1	0	1	1	2	2	7
H2	ADA-accessible Intersection	Add ADA features at existing pedestrian crossings.	1	2	1	2	2	2	10

KAI Number	Name	Project Description	Access/Connectivity	Ease of Implementation	Economic Development Potential	Impacts to Motor Vehicle Capacity	Safety	Vulnerable Populations	Overall Score
H3	Bike Lane Expansion	Decrease travel lane widths or shave existing sidewalk to accommodate bike lanes on shoulder approaching Veterans Memorial Parkway.	1	0	1	1	2	2	7
H4	Bus Stop Improvements	Add new signage at bus stops (include route information).	1	2	1	2	2	2	10
		Add benches at bus stops.	1	2	1	2	2	2	10
H5	Sidewalk Obstruction Removal	Relocate mailbox obstructing sidewalk.	1	2	1	2	2	2	10
<b>I. 43rd Street to Glenwood Street</b>									
I1	New Sidewalk	Construct sidewalk along the north side of Chinden Boulevard between 44th Street and Glenwood Street.	2	0	2	2	2	2	10
		Construct ADA-accessible curb ramps at all applicable intersections along the north side of Chinden Boulevard between 44th Street and Glenwood streets	2	0	2	2	2	2	10
<b>J. Riverside Hotel to 44th Street</b>									
J1	Pavement Improvements	Smooth the paved asphalt sidewalk adjacent to concrete section (roto-mill-fill) from approximately The Riverside Hotel to 44th Street.	2	0	2	2	2	2	10
J2	Sidewalk obstruction removal	Remove obstructions in the sidewalk from The Riverside Hotel to 44th Street.	2	2	2	2	2	2	12
<b>K. Orchard Street/36th Street Intersection</b>									
K1	Access Point Closures	Work with developers to close unnecessary access points along Chinden Boulevard.	1	0	1	1	1	0	4
K2	Bus Stop Improvements	Add new signage at bus stops (include route information).	1	2	1	2	1	0	7
		Add benches at bus stops.	1	2	1	2	1	0	7
K3	Enhance or Remove Free Right Turns	Review value of all free rights and remove unnecessary ones.	1	0	1	1	1	0	4
		To improve visibility, move the existing crosswalk to the west.	1	2	1	2	1	0	7
		Install MUTCD-compliant pedestrian crossing signs and advance warning signs.	1	2	1	2	1	0	7
		Replace existing "Bike Route" sign with a wayfinding sign.	1	2	1	1	0	6	
K4	Pedestrian Crossing Improvements	Align pedestrian crossing signals, curb ramps and crosswalks so that they are accessible and logical.	1	1	1	2	1	0	6
<b>L. Riverside Hotel Area</b>									
L1	New Landscaped Buffer	Install 3' wide landscaped buffer between Garden Street and 32nd Street.	1	0	1	1	1	1	5
<b>M. Main Street/N Garden Street Intersection</b>									
M1	Access Point Closures	Work with developers to close unnecessary access points along Chinden Boulevard.	1	0	1	1	1	1	5
M2	Pedestrian Crossing Improvements	Align pedestrian crossing signals, curb ramps and crosswalks so that they are accessible and logical.	1	1	1	2	1	1	7
<b>N. Chinden Boulevard Comprehensive Corridor Study</b>									
N1	Access Point Closures	Work with developers to close unnecessary access points along Chinden Boulevard.	2	0	2	1	2	2	9
N2	Chinden Boulevard Speed Limits	Explore traffic calming for Chinden Boulevard to encourage safe 35 MPH travel. Explore implementing lower speed limits traveling from VMP to the east.	2	1	2	1	2	2	10
N3	Chinden Boulevard Travel Lane Restriping	Restripe Chinden Boulevard and narrow travel lanes to 11 feet.	2	0	2	0	2	2	8
N4	New Landscaped Buffer - Glenwood to E. 50th	Create landscape strip to buffer pedestrians from motor vehicles and as green space for infiltration. Short term: Add potted trees on the outside concrete sidewalk section.	1	0	1	1	1	2	6
N5	New Landscaped Buffer - E. 50th to Veterans Memorial Parkway	Create landscape strip to buffer pedestrians from motor vehicles and as green space for infiltration. Short term: Add potted trees on the outside concrete sidewalk section.	1	0	1	1	1	2	6
N6	New Landscaped Buffer - Veterans Memorial Parkway to Garden Street	Create landscape strip to buffer pedestrians from motor vehicles and as green space for infiltration. Short term: Add potted trees on the outside concrete sidewalk section.	2	0	2	1	2	2	9
N7	New Bike Lanes - Glenwood to E. 50th Street	Construct 5 - 6 foot bike lanes on both sides of Chinden Boulevard between Coffey Street and Garden Street. At a minimum, stripe a wider shoulder to provide refuge for bicyclists and pedestrians (if space is not available).	1	0	1	0	1	2	5
N8	New Bike Lanes - E. 50th to Veterans Memorial Parkway	Construct 5 - 6 foot bike lanes on both sides of Chinden Boulevard between Coffey Street and Garden Street. At a minimum, stripe a wider shoulder to provide refuge for bicyclists and pedestrians (if space is not available).	1	0	1	0	1	2	5

KAI Number	Name	Project Description	Access/Connectivity	Ease of Implementation	Economic Development Potential	Impacts to Motor Vehicle Capacity	Safety	Vulnerable Populations	Overall Score
N9	New Bike Lanes - Veterans Memorial Parkway to Garden Street	Construct 5 - 6 foot bike lanes on both sides of Chinden Boulevard between Coffey Street and Garden Street. At a minimum, stripe a wider shoulder to provide refuge for bicyclists and pedestrians (if space is not available).	2	0	2	0	2	2	8
N10	New Medians - Glenwood to E. 50th Street	Consider installing medians along Chinden Boulevard between Garden Street and Coffey Street with turn lanes in the median where necessary. Medians can also double as green space for storm water drainage.	1	0	1	1	1	2	6
N11	New Medians - E. 50th to Veterans Memorial Parkway	Consider installing medians along Chinden Boulevard between Garden Street and Coffey Street with turn lanes in the median where necessary. Medians can also double as green space for storm water drainage.	1	0	1	1	1	2	6
N12	New Medians - Veterans Memorial Parkway to Garden Street	Consider installing medians along Chinden Boulevard between Garden Street and Coffey Street with turn lanes in the median where necessary. Medians can also double as green space for storm water drainage.	2	0	2	1	2	2	9
<b>O. Greenbelt</b>									
O1	E 52nd Street/Greenbelt Connection	Build a pathway connecting the greenbelt gap at 5nd Street.	0	0	0	2	0	2	4
O2	Greenbelt Maintenance	Develop MOU or other agreement to clarify maintenance and operational responsibilities along this multi-jurisdictional section of the Greenbelt.	2	0	2	2	2	2	10
O3	Illuminating the Greenbelt	Add lighting along the Greenbelt for safer night travel.	2	0	2	2	2	2	10
O4	New Greenbelt Connections	Add signage wherever necessary to safely direct cyclists to the Greenbelt.	2	2	2	2	2	2	12
		Construct all necessary sidewalk connections between local roads and the Greenbelt.	2	0	2	2	2	2	10
		Add ADA curb ramps at all applicable connections to the Greenbelt	2	0	2	2	2	2	10
<b>P. Policy Issues</b>									
P1	Garden City Clean-Up Policy	Implement clean-up strategies on all roadways and sidewalks in Garden City.	2	2	2	2	2	2	12
P2	General - Chinden Blvd	Begin enforcing restrictions on sidewalk obstructions on all roadways and sidewalks in Garden City.	2	2	2	2	2	2	12
<b>Q. Fairgrounds Study</b>									
Q1	Fairgrounds Impact Analysis	Examine pedestrian issues that come up around time period of heavy use of the Fairgrounds (summer and fall).	1	2	1	2	1	2	9
<b>R. Bus Stop Improvements</b>									
R1	Bus Stop Improvements	Add new signage at bus stops (include route information).	2	2	2	2	2	2	12
		Add benches at bus stops.	2	2	2	2	2	2	12
<b>S. Access Point Closures</b>									
S1	Access Point Closures	Work with developers to close unnecessary access points along Chinden Boulevard.	2	0	2	1	2	2	9
<b>T. Sidewalk Obstruction Removal</b>									
T1	Sidewalk obstruction removal	Remove obstructions in the sidewalk along Chinden Boulevard	2	1	2	2	2	2	11

Appendix B Project Funding Processes and  
Criteria

<b>Statewide TAP Funding</b>	
<b>Funding amount available: \$500K (Infrastructure) and \$60K (Non-Infrastructure)</b>	
<b>Application deadline: Biannually in the Spring (2018)</b>	
<b>Application Process</b>	
1	Consult District 3 TAP Coordinator to review if project is suitable for TAP funding
2	Coordinate with COMPASS to have project reviewed and approved
3	Submit TAP Application to ITD Headquarters
4	Application will be distributed to and scored by the TAP Recommendation Committee
5	Approved applications will be recommended to the ITD Board to be included in the Idaho Transportation Investment Program (ITIP)
<b>Application Requirements</b>	
1	Application Form
2	Budget (including match)
3	Evaluation Phase Project Charter (ITD 0332)
4	Site map(s)
5	Letter(s) of Support
6	Endorsement letter - Mayor, City Council or County Commissioners
7	Endorsement letter - COMPASS
8	Match commitment letter
9	Project Delivery Schedule
10	Right of Way Certification for infrastructure projects (ITD 1983)
11	Environmental Screening (ITD 0211)
12	Site Checklist - Endorsed by District TAP Coordinator
<b>Application Criteria</b>	
1	Needs - To demonstrate need, an applicant must identify the goals the project will address, the alternative solutions considered, how the solution will address the goal, and that the proposed project is supported by the community.
2	Benefits - To demonstrate benefits, an applicant should identify how their project addresses one or more of the following items: <ul style="list-style-type: none"> <li>- Mobility – Preserves or expands access to key destinations within the community (i.e. schools, health care, jobs, shopping, and recreation) for populations that have limited transportation options (i.e. elderly, school children, environmental justice communities, mobility impaired, and/or populations with limited access to fresh foods).</li> <li>- Safety – Improves safety within the local mobility system by addressing transportation or environmental hazards. The applicant can demonstrate the extent of benefit by noting the anticipated reduction in crashes, traveler discomfort, and/or adverse health</li> <li>- Economic Opportunity – Benefits that result in an increase in long term employment opportunities, increase in tourism revenue, attraction of new businesses or employees to the community, positive impact on an investment opportunity such as a component of a main street redevelopment, reduction in health care costs or transportation costs for residents.</li> </ul>
3	Feasibility - To demonstrate feasibility, the applicant should provide evidence that project meets the following criteria: <ul style="list-style-type: none"> <li>- Stakeholder Support – Demonstrated by support letters from impacted stakeholders (i.e. adjacent property owners, target population groups, etc.).</li> <li>- Site Checklist – Sponsor has collaborated with the District TAP Coordinator in order to complete the Site Checklist and has endorsed the project.</li> <li>- Project Sustainability – Demonstrated by a long term plan to maintain the project once completed.</li> <li>- Financial Commitment – Documented by a commitment letter highlighting local cash match.</li> <li>- Technical Feasibility – Demonstrated by providing a detailed project development schedule and a detailed project budget</li> <li>- Legal Feasibility – Demonstrated by providing adequate proof that the sponsor has legal rights to execute project activities (i.e. right-of-way access, sponsorship eligibility, etc.).</li> </ul>

<b>TAP-TMA Funding</b>	
<b>Funding amount available: \$450K</b>	
<b>Application deadline: November 30th (annual)</b>	
<b>Application Process</b>	
1	Consult District 3 TAP Coordinator to review if project is suitable for TAP funding
2	Submit project application to COMPASS
3	Application will be distributed to and scored by the Regional Technical Advisory Committee, who will recommend project priorities for COMPASS Board Approval
4	Approved applications will be recommended to COMPASS and the ITD Board to be included in the COMPASS Transportation Investment Program (TIP)
5	After COMPASS Board approval, only those projects that can be funded with the available amount of funding will move forward for programming
<b>Application Requirements</b>	
1	Application Form
2	Resolution or similar agency document supporting the project, confirming commitment of local match, and committing to maintain the project once complete.
3	Checklist for project development
4	Proposed project schedule
5	Project Cost Summary Sheet, ITD Form 1150
6	Local Federal-Aid Project Request, ITD Form 2435
7	Sub-Awardee Reporting for the Federal Funding Accountability and Transparency Act (FFATA), ITD Form 0141, if applicable
8	Maps and/or photos, if applicable
<b>Application Criteria<sup>1</sup></b>	
1	Is the project consistent with CIM 2040?
2	How does the project meet the CIM 2040 Vision, goals, or strategies?
3	Has the sponsor committed available local match through a formal action, such as a resolution or meeting minutes?
4	Has the sponsor committed to paying operating or maintenance costs through a formal action, such as a resolution or meeting minutes?
5	Is the project located in an economically distressed area?
6	Is the project located in an environmental justice consideration area?
7	Did the environmental suitability analysis identify potential environmental considerations in the project area?
8	Does this application include additional funds for an existing project?
9	Does the project include a partnership with another agency?
10	Will the sponsor provide match above the minimum requirement?
11	Will the project eliminate or lessen safety hazards?
12	Is there demonstrated support from the general public, local agencies, and/or non-profit organizations for the project?
13	Does the project have dedicated right-of-way, or will it need to be purchased?
14	Does the project have a local or regional scope?
15	Does the project benefit the existing transportation system?
16	Is the project identified in an adopted local plan specifically?
17	If seeking federal funds, has the agency discussed this project with ITD District 3 TAP Coordinator for suggestions about the budget and timeline?
18	What CIM 2040 Performance Measures are relevant? How?
<sup>1</sup> When scoring the project application, the scoring committee (RTAC) will consider these criteria	

<b>Recreational Trail Program Funding</b>	
<b>Funding amount available: \$1.5 million</b>	
<b>Application deadline: January 29th (annual)</b>	
<b>Application Process</b>	
1	Include/reference trail in Idaho's Statewide Comprehensive Outdoor Recreation and Tourism Plan
2	Contact regional Grant Specialist and applicable RTP Committee member before completing the grant application
3	Complete and submit IDPR Grant Application
4	IDPR advisory committee evaluates and rates applications
5	IDPR Park Board approves grants for award
6	Federal Partners reviews and approves applications for RTP Funding
7	Grants awarded to successful applicants
<b>Application Requirements</b>	
1	Completed Application Form
2	Budget (including 20% match)
3	Proof of ownership/management status of the project site
4	Completed environmental survey
5	Letter(s) of Support
6	Proof of public involvement
7	Construction drawings/conceptual plans
8	Match commitment letter
9	Site location map
<b>Application Criteria</b>	
1	Credibility: Degree to which project reflects the purpose of the program or fund and benefits a full range of users contributing to the specific program fund
2	Assessment of Need <ul style="list-style-type: none"> <li>- Degree of urgency due to potential resource damage, or health and safety concerns that may cause an opportunity to be lost if no action is taken</li> <li>- Degree to which the project creates new recreational opportunities not currently available in the area</li> <li>- Degree to which project is reflected as a user need in current comprehensive outdoor recreation plans or surveys</li> </ul>
3	Scope of Work <ul style="list-style-type: none"> <li>- Degree of quality in project planning, design, organization, and coordination with IDPR staff and respective advisory committees</li> <li>- Degree of overall quality and importance of the project as demonstrated to the Advisory Committee</li> <li>- Degree to which project is reflected as a user need in current comprehensive outdoor recreation plans or surveys</li> </ul>
4	Commitment <ul style="list-style-type: none"> <li>- Degree to which applicant has committed to the ongoing maintenance of the facility or continuation of the service</li> <li>- Degree of matching funds from applicant and other applicant sources or investment in the project as demonstrated by the applicant</li> <li>- Degree of statewide user group support for the project</li> </ul>
5	Feasibility: Degree to which project costs are reasonable and accurate and relate to project benefits



<b>Large and Small Urban Areas Public Transportation Funding</b>	
<b>Funding amount available: \$343K<sup>1</sup></b>	
<b>Application deadline: November 30th (annual)</b>	
<b>Application Process</b>	
1	Submit project application to VRT
2	A subcommittee of VRT's Regional Coordination Council (RCC) will score the applications and recommend projects for VRT Board of Directors approval
3	The RCC recommendation will also be forwarded to RTAC for consideration and recommendation to the COMPASS Board
4	After priority recommendations are decided by the COMPASS and VRT Boards, those projects that can be funded with the available amount of funding will move forward for programming.
<b>Application Requirements</b>	
1	Application Form
2	Resolution or similar agency document supporting the project, confirming commitment of local match, and committing to maintain the project once complete.
3	Budget
4	Proposed project schedule
5	Project map, if applicable
<b>Application Criteria</b>	
1	Support and Maintain Successful/Critical Service Operation: <ul style="list-style-type: none"> <li>- How does the project support the existing transportation services?</li> <li>- What are the primary trip purposes (nutrition, shopping, health, employment, civic engagement, recreation, all other) for the project?</li> <li>- If you are seeking vehicle replacement, do you have a capital replacement plan that supports your application for a new vehicle?</li> </ul>
2	Maximize the Use of Available Resources <ul style="list-style-type: none"> <li>- Modes: Is the project the most effective transportation mode(s) for the situation?</li> <li>- Cost efficiency: is the proposed project the most cost efficient way to meet the need?</li> <li>- Ridership: Are the proposed services structured to accommodate multiple passengers?</li> <li>- Sustainability: Is it a one-time project? If not, what is the plan for ongoing funding and operations?</li> </ul>
3	Support Affordable Transportation Options <ul style="list-style-type: none"> <li>- Affordability: Will the anticipated costs to the targeted customers be the most affordable option compared to other optional transportation modes?</li> </ul>
4	Support Accessible Transportation Options <ul style="list-style-type: none"> <li>- Does the project improve accessible transportation options for persons with disabilities?</li> <li>- Does the project provide mode choice?</li> </ul>
5	Expand Service Operations <ul style="list-style-type: none"> <li>- Is the project supported through an existing planning document such as valleyconnect or <i>Communities in Motion 2040</i>?</li> <li>- Does the project enhance or provide connections to existing services?</li> <li>- Is the project supported by one or more strategies in the Transportation Service Coordination Plan for Ada and Canyon Counties?</li> </ul>
6	Improve Safety and Security <ul style="list-style-type: none"> <li>- How does the project improve or maintain safety and security of the transportation system?</li> </ul>
7	Improve Customer Service <ul style="list-style-type: none"> <li>- How will the project improve customer service and mobility support?</li> </ul>
<sup>1</sup> Funds are used first for necessary operations, maintenance, and capital needs of the existing public transportation system in the region. Remaining funds, if any, are available for other agencies and organizations through the application process.	

<b>Highway Safety Improvement Program (HSIP)</b>	
<b>Funding amount available: \$16.6 million annually over 5 years</b>	
<b>Typical application time: March 18th (annual)</b>	
<b>Application Process</b>	
1	Create a Project Charter through the Project Scheduling System (PSS)
2	Project Charter and associated application reviewed by ITD
3	ITD forwards a funding request to FHWA-ID
4	State Highway District place approved HSIP projects in the Early Development (ED) program as the State Highway HSIP allocations are distributed under the strategic initiatives program.
<b>Application Requirements</b>	
1	Project Charter
2	Project Objective Statement and Scope of Work
3	Project Timeline
4	HSIP Justification Information
<b>Application Criteria</b>	
1	<p>How is the project safety-driven?</p> <ul style="list-style-type: none"> <li>- Base answers upon the Strategic Highway Safety Plan</li> <li>- Site statistics and results such as the basis of crash experience, crash potential, crash rate, or other data-supported means</li> </ul>
2	<p>How does the project align with and help implement the strategies found in the Strategic Highway Safety Plan?</p> <ul style="list-style-type: none"> <li>- Pinpoint safety problems either through a site analysis or systematic approach</li> <li>- Identify counter measures to address those problems</li> </ul>
3	<p>How does the project eliminate death and serious injury?</p> <ul style="list-style-type: none"> <li>- Address identified safety issues within a highway safety corridor or a spot location</li> <li>- Each district has a corridor map outlining safety corridors. Review these maps for pertinent system-wide safety corridor analysis.</li> </ul>

<b>ADA Curb Ramp Funding</b>	
<b>Funding amount available: \$500K (up to \$60K per applicant)</b>	
<b>Application deadline: April 1 (annual)</b>	
<b>Application Process</b>	
1	Submit application to ITD
2	Application reviewed by panel consisting of staff from ITD, FHWA (Idaho Division) and LHTAC
3	Recommendations for award presented to ITD Board
4	Project Awards announced
<b>Application Requirements</b>	
1	Completed Application Form
2	Information on curb ramp location, priority and cost
<b>Application Criteria</b>	
1	<p>The need to improve a curb ramp will be evaluated based on the following criteria:</p> <ul style="list-style-type: none"> <li>- ITD Transition Plan Priority: this plan prioritizes each non-compliant curb ramp based on location relative to places of interest and the physical characteristics of the ramp related to compliance.</li> <li>- Previous Awardee History: Applicants that have not met the requirements of prior Cooperative Agreements will be ineligible for funding.</li> <li>- New Applicants: Applicants that have not previously been awarded funds will receive preferred status</li> </ul>

<b>Communities in Motion Project Funding</b>	
<b>Funding amount available: \$50K</b>	
<b>Application deadline: September 5 (annual)</b>	
<b>Application Process</b>	
1	Submit CIM Implementation Grant Application to COMPASS
2	COMPASS reviews and prioritizes applications, makes a recommendation to Regional Technical Advisory Committee (RTAC)
3	RTAC makes a recommendation to the COMPASS Board
4	The COMPASS Board approves annual budget and program allocation, and awards grants
<b>Application Requirements</b>	
1	Application Form
2	Project costs, estimate sources, amount requested, and available match (cash and in-kind)
3	Commitment/support letter(s)
4	Proposed project schedule
5	Maps and/or photos, if applicable
<b>Prioritization Criteria</b>	
1	<p>To what level does the project address the following?</p> <ul style="list-style-type: none"> <li>- Relation to CIM 2040 goals and performance measures</li> <li>- Relation to CIM 2040 tasks (provide better access to public transportation, bike and pedestrian facilities to offset congestion, invest in town centers, main streets, and existing infrastructure, and develop specific area plans for activity centers consistent with CIM 2040 and with planned integration of alternative transportation systems)</li> <li>- Relation to CIM 2040 Vision, major activity centers or approved comprehensive plans/downtown area plans</li> <li>- Previous attempts to secure funding</li> </ul>
2	<p>The following criteria will be used by a subcommittee of RTAC to prioritize applications:</p> <ul style="list-style-type: none"> <li>- How well does the project fit the goals/intent of the CIM Implementation Grant Program?</li> <li>- Is the project clearly contributing to the goals and performance measures for CIM 2040?</li> <li>- Does the project clearly fit within a defined downtown area or major activity center?</li> <li>- Is there demonstrated support from the general public and other agencies or organizations?</li> <li>- Is the project part of an identified local plan?</li> <li>- Does the supplemental information provided by the applicant adequately address the appropriate questions?</li> <li>- Is the project leveraging other funds?</li> </ul>

<b>ACHD Community Programs</b>	
<b>Funding amount available: \$2.5 million</b>	
<b>Application Deadline: Ongoing</b>	
<b>Application Process</b>	
1	Submit completed application to ACHD
2	Project reviewed and selected by ACHD
3	Funds awarded to successful applicants
<b>Application Requirements</b>	
1	Completed Application Form
2	Signed signature support forms from all impacted property owners
3	Conceptual Plans/drawings identifying project site, boundaries, requested improvements and significant geographical features
4	Site location map (including parcel numbers) and photos
<b>Application Criteria</b>	
1	Distance to schools
2	Traffic volume of the street
3	Outside funding
4	Improve mobility for the disabled

<b>TIGER Discretionary Grant Program</b>	
<b>Funding amount available: \$500 million (minimum total project cost must be \$6.25 million)</b>	
<b>Application deadline: April 29th (annual)</b>	
<b>Application Process</b>	
1	Complete the Grants.gov registration process (2-4 weeks)
2	Submit TIGER Project Information form and associated attachments via Grants.gov
3	USDOT reviews all applications and announced funding recipients
4	Successful applicants negotiate, sign and execute grant agreements with USDOT
<b>Application Requirements</b>	
1	Grants.org registration
2	Benefit-Cost Analysis
3	Matching funds (TIGER funds may cover up to 80% of project costs)
4	Evidence of project readiness: technical feasibility, financial feasibility, project schedule, required approvals, assessment of project risks and mitigation strategies
5	Attachments Form and TIGER Project Information Sheet (201XTIGERinfo.xlsx)
6	Application for Federal Assistance (SF-424)
<b>Application Criteria</b>	
<i>Primary Selection Criteria</i>	
1	Safety - what is the project's ability to foster a safe, connected, accessible transportation system for the multimodal movement of goods and people?
2	State of Good Repair - is a sustainable source of revenue available for operations and maintenance of the project? Is the project consistent with relevant plans to maintain transportation facilities or systems in a state of good repair and address current and projected vulnerabilities?
3	Economic Competitiveness - will the project decrease transportation costs and improve access for Americans through reliable and timely access to key destinations? Will the project increase the economic productivity of land, capital, or labor at specific locations? Will the project result in long-term job creation and other economic opportunities?
4	Quality of Life - will the project further the six "Livability Principles" developed by DOT with the Department of Housing and Urban Development (HUD) and the Environmental Protection Agency (EPA) as part of the Partnership for Sustainable Communities?
5	Environmental Sustainability - will the project reduce energy use and air or water pollution? Will the project avoid adverse environmental impacts to air or water quality, wetlands, and endangered species?
<i>Secondary Selection Criteria</i>	
6	Innovation - will the project use innovative technology to pursue long-term outcomes? Does the project incorporate innovations in transportation funding and finance? To what extent does the project utilize innovative practices in contracting, congestion management, safety management, asset management, or long-term operations and maintenance?
7	Partnership - does the project demonstrate strong collaboration among a broad range of stakeholders? Is the project a product of a robust, inclusive planning process?

**Ineligible Funding Sources**

Funding Number	Funding Source	Reason for project ineligibility
1	<b>Idaho Community Development Block Grant</b>	The beneficiaries of CDBG public facilities funding must be comprised of at least 51% low- and moderate-income persons. Garden City's population is composed of 45%-46% low- and moderate-income persons. The proposed project bundles must be associated with an "anchor development" that serves an at-need population in Garden City, or must be located within the limits of an approved Downtown Redevelopment Area Plan to be eligible for CDBG economic development or community facility funding.
2	<b>Statewide Planning and Research or Metropolitan Planning Funds</b>	Planning funds must be used for planning purposes, including: system maps and GIS, safety education and awareness, safety program technical assessments, and bicycle and pedestrian system planning training.
3	<b>NHTSA 402: State and Community Highway Safety Grant Program</b>	NHTSA 402 funds must be used for safety education activities, programs, training, positions, enforcement and assessments that are specifically included in the State's Highway Safety Plan.
4	<b>NHTSA 405: National Priority Safety Programs (non-motorized safety)</b>	NHTSA 405 funds must be used for safety education activities, training and enforcement projects that are specifically included in the State's Highway Safety Plan.
5	<b>Transportation Infrastructure Finance and Innovation Act (TIFIA)</b>	Any TIFIA project's eligible costs must be reasonably anticipated to total at least \$50 million.
6	<b>Congestion Mitigation &amp; Air Quality (CMAQ) Program</b>	The program is currently inactive per an April 2008 Idaho Transportation Board Resolution.
7	<b>Highway Safety Improvement Program (HSIP)</b>	HSIP projects must be consistent with Idaho's Strategic Highway Safety Plan and either (1) correct or improve a hazardous road location or feature, or (2) address a highway safety problem. ADA ramps and sidewalks are identified as ineligible projects under Idaho's HSIP program. <i>Please note that intersection safety improvement projects are eligible under Idaho's HSIP program.</i>
8	<b>Local Highway Safety Improvement Program (LHSIP)</b>	LHSIP funding eligibility is based on the number of qualifying crashes your Local Highway Jurisdiction has had over the past five-year period (at least three fatal and/or serious injury (type A) crashes are required). Garden City is not listed as an eligible jurisdiction on LHTAC's website.
9	<b>Safe Routes to School Program</b>	SRTS projects are now funded using Transportation Alternatives Programs funding.
10	<b>Federal Lands and Tribal Transportation Programs</b>	FLTTP projects must provide access to or within Federal or tribal lands.

## Appendix C Project Bundle Cost Estimates



**Chinden Boulevard Corridor**  
**Lady Bird Park Asphalt Pathway Estimate - High End Cost**  
**Glenwood Street to Kent Lane**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Meredyth Sanders			Date: September, 2016		
This Estimate has a Rating of:			<b>2B</b> (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Extruded Concrete Curb	LF	130	\$15.00	\$ 1,950.00
2	Delineator	EA	3	\$ 41.00	\$ 106.60
3	Asphalt Sidewalk	SY	1,861	\$ 25.00	\$ 46,514.55
4	Trim Tree	EA	1	\$ 30.00	\$ 30.00
5	Remove Tree 6" +	EA	5	\$ 290.00	\$ 1,450.00
6	Remove and reset baseball fields/dugouts	EA	2	\$ 10,000.00	\$ 20,000.00
<b>Subtotal A</b>				\$	<b>70,051</b>
7	Utility Relocation Coordination/Support	% of Subtotal A	1%	\$ 70,051	\$ 700.51
8	Mobilization	% of Subtotal A	10%	\$ 70,051	\$ 7,005.12
9	Surveying	% of Subtotal A	5%	\$ 70,051	\$ 3,502.56
10	Environmental Mitigation	% of Subtotal A	1%	\$ 70,051	\$ 700.51
11	Drainage Mitigation	% of Subtotal A	2%	\$ 70,051	\$ 1,401.02
12	Construction Traffic Control	% of Subtotal A	2%	\$ 70,051	\$ 1,401.02
13	Temporary Erosion Control	% of Subtotal A	0.5%	\$ 70,051	\$ 350.26
<b>Subtotal B</b>				\$	<b>15,061</b>
14	Right-of-Way Area	SF	0	\$ 0.22	\$ -
15	Construction/Right-of-Way Easement Area	% of Subtotal A & B	2%	\$ 85,112	\$ 1,702.24
16	Engineering Design & Construction Management	% of Subtotal A & B	10%	\$ 85,112	\$ 8,600.00
<b>Subtotal C</b>				\$	<b>10,302</b>
<b>TOTAL PROJECT SUBTOTAL</b>				\$	<b>95,414</b>
<b>20% Contingency</b>				\$	<b>19,090</b>
<b>TOTAL ESTIMATED PROJECT COST</b>				\$	<b>114,504</b>

**Scope Accuracy:**

**Level 1:** Project scope well understood and well defined.

**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

**Chinden Boulevard Corridor**  
**Lady Bird Park Asphalt Pathway Estimate - Low End Cost**  
**Glenwood Street to Kent Lane**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Meredyth Sanders			Date: September, 2016		
This Estimate has a Rating of:			<b>2B</b> (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Extruded Concrete Curb	LF	130	\$ 15.00	\$ 1,950.00
2	Delineator	EA	3	\$ 41.00	\$ 106.60
3	Asphalt Sidewalk	SY	1,861	\$ 25.00	\$ 46,514.55
4	Trim Tree	EA	0	\$ 30.00	\$ -
5	Remove Tree 6" +	EA	0	\$ 290.00	\$ -
6	Remove and reset baseball fields/dugouts	EA	0	\$ 10,000.00	\$ -
<b>Subtotal A</b>				\$	<b>48,571</b>
7	Utility Relocation Coordination/Support	% of Subtotal A	1%	\$ 48,571	\$ 485.71
8	Mobilization	% of Subtotal A	10%	\$ 48,571	\$ 4,857.12
9	Surveying	% of Subtotal A	5%	\$ 48,571	\$ 2,428.56
10	Environmental Mitigation	% of Subtotal A	1%	\$ 48,571	\$ 485.71
11	Drainage Mitigation	% of Subtotal A	2%	\$ 48,571	\$ 971.42
12	Construction Traffic Control	% of Subtotal A	2%	\$ 48,571	\$ 971.42
13	Temporary Erosion Control	% of Subtotal A	0.5%	\$ 48,571	\$ 242.86
<b>Subtotal B</b>				\$	<b>10,443</b>
14	Right-of-Way Area	SF	0	\$ 0.22	\$ -
15	Construction/Right-of-Way Easement Area	% of Subtotal A & B	2%	\$ 59,014	\$ 1,180.28
16	Engineering Design & Construction Management	% of Subtotal A & B	10%	\$ 59,014	\$ 6,000.00
<b>Subtotal C</b>				\$	<b>7,180</b>
<b>TOTAL PROJECT SUBTOTAL</b>				\$	<b>66,194</b>
<b>20% Contingency</b>				\$	<b>13,240</b>
<b>TOTAL ESTIMATED PROJECT COST</b>				\$	<b>79,434</b>

**Scope Accuracy:**

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**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

**Chinden Boulevard Corridor**  
**Lady Bird Park Asphalt Pathway with Extruded Curb Estimate**  
**Glenwood Street to Kent Lane**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Meredyth Sanders			Date: September, 2016		
This Estimate has a Rating of:			<b>2B</b> (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Extruded Concrete Curb	LF	395	\$15.00	\$ 5,925.00
2	Delineator	EA	81	\$ 41.00	\$ 3,304.60
3	Detectable Warning Domes - New Ramps	EA	2	\$ 500.00	\$ 1,000.00
4	Asphalt Sidewalk	SY	1,662	\$ 25.00	\$ 41,547.30
5	Remove and Replace - Chain Link Fence - Height, ft	LF	850	\$ 25.00	\$ 21,250.00
6	Remove and Reset Roadside Sign	EA	5	\$ 90.00	\$ 450.00
7	Trim Tree	EA	2	\$ 30.00	\$ 60.00
<b>Subtotal A</b>					<b>\$ 73,537</b>
8	Utility Relocation Coordination/Support	% of Subtotal A	50%	\$ 73,537	\$ 36,768.45
9	Mobilization	% of Subtotal A	10%	\$ 73,537	\$ 7,353.69
10	Surveying	% of Subtotal A	5%	\$ 73,537	\$ 3,676.85
11	Environmental Mitigation	% of Subtotal A	1%	\$ 73,537	\$ 735.37
12	Drainage Mitigation	% of Subtotal A	5%	\$ 73,537	\$ 3,676.85
13	Construction Traffic Control	% of Subtotal A	5%	\$ 73,537	\$ 3,676.85
14	Temporary Erosion Control	% of Subtotal A	0.5%	\$ 73,537	\$ 367.68
<b>Subtotal B</b>					<b>\$ 56,256</b>
15	Right-of-Way Area	SF	0	\$ 0.22	\$ -
16	Construction/Right-of-Way Easement Area	% of Subtotal A & B	2%	\$ 129,793	\$ 2,595.85
17	Engineering Design & Construction Management	% of Subtotal A & B	10%	\$ 129,793	\$ 13,000.00
<b>Subtotal C</b>					<b>\$ 15,596</b>
<b>TOTAL PROJECT SUBTOTAL</b>					<b>\$ 145,388</b>
<b>20% Contingency</b>					<b>\$ 29,080</b>
<b>TOTAL ESTIMATED PROJECT COST</b>					<b>\$ 174,468</b>

**Scope Accuracy:**

**Level 1:** Project scope well understood and well defined.

**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

**Chinden Boulevard Corridor**  
**Lady Bird Park Concrete Sidewalk Estimate - High End Cost**  
**Glenwood Street to Kent Lane**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Meredyth Sanders			Date: September, 2016		
This Estimate has a Rating of: <b>2B</b> (See rating scale guide below.)					
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Standard 6-inch Vertical Curb & Gutter	LF	395	\$ 12.00	\$ 4,740.00
	36" Storm Drain Pipe RCP	LF	8,448	\$ 150.00	\$ 1,267,200.00
	Trench Excavation	LF	8,448	\$ 6.00	\$ 50,688.00
	Surface Restoration	LF	8,448	\$ 15.00	\$ 126,720.00
2	Pedestrian Ramp w/Detectable Warning Domes	EA	2	\$ 1,000.00	\$ 2,000.00
3	Concrete Sidewalks, thickness 5"	SY	1,662	\$ 45.00	\$ 74,785.14
4	Remove and Replace - Chain Link Fence - Height, ft	LF	850	\$ 25.00	\$ 21,250.00
5	Remove and Reset Roadside Sign	EA	4	\$ 90.00	\$ 360.00
6	Trim Tree	EA	2	\$ 30.00	\$ 60.00
<b>Subtotal A</b>					<b>\$ 1,547,803</b>
7	Utility Relocation Coordination/Support	% of Subtotal A	12%	\$ 1,547,803	\$ 185,736.38
8	Mobilization	% of Subtotal A	10%	\$ 1,547,803	\$ 154,780.31
9	Surveying	% of Subtotal A	2%	\$ 1,547,803	\$ 30,956.06
10	Drainage Mitigation	% of Subtotal A	10%	\$ 1,547,803	\$ 154,780.31
11	Construction Traffic Control	% of Subtotal A	6%	\$ 1,547,803	\$ 92,868.19
12	Temporary Erosion Control	% of Subtotal A	3%	\$ 1,547,803	\$ 46,434.09
<b>Subtotal B</b>					<b>\$ 665,555</b>
13	Right-of-Way Area	SF	0	\$ 0.22	\$ -
14	Construction/Right-of-Way Easement Area	% of Subtotal A & B	1%	\$ 2,213,358	\$ 22,133.58
15	Engineering Design & Construction Management	% of Subtotal A & B	15%	\$ 2,213,358	\$ 332,100.00
<b>Subtotal C</b>					<b>\$ 354,234</b>
<b>TOTAL PROJECT SUBTOTAL</b>					<b>\$ 2,567,592</b>
<b>25% Contingency</b>					<b>\$ 641,900</b>
<b>TOTAL ESTIMATED PROJECT COST</b>					<b>\$ 3,209,492</b>

**Scope Accuracy:**

**Level 1:** Project scope well understood and well defined.

**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

**Chinden Boulevard Corridor**  
**Lady Bird Park Concrete Sidewalk Estimate - Low End Cost**  
**Glenwood Street to Kent Lane**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Meredyth Sanders			Date: September, 2016		
This Estimate has a Rating of: <b>2B</b> (See rating scale guide below.)					
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Standard 6-inch Vertical Curb & Gutter	LF	395	\$ 12.00	\$ 4,740.00
	36" Storm Drain Pipe RCP	LF	1,550	\$ 150.00	\$ 232,500.00
	Trench Excavation	LF	1,550	\$ 6.00	\$ 9,300.00
	Surface Restoration	LF	1,550	\$ 15.00	\$ 23,250.00
2	Pedestrian Ramp w/Detectable Warning Domes	EA	2	\$ 1,000.00	\$ 2,000.00
3	Concrete Sidewalks, thickness 5"	SY	1,662	\$ 45.00	\$ 74,785.14
4	Remove and Replace - Chain Link Fence - Height, ft	LF	850	\$ 25.00	\$ 21,250.00
5	Remove and Reset Roadside Sign	EA	4	\$ 90.00	\$ 360.00
6	Trim Tree	EA	2	\$ 30.00	\$ 60.00
<b>Subtotal A</b>					<b>\$ 368,245</b>
7	Utility Relocation Coordination/Support	% of Subtotal A	12%	\$ 368,245	\$ 44,189.42
8	Mobilization	% of Subtotal A	10%	\$ 368,245	\$ 36,824.51
9	Surveying	% of Subtotal A	2%	\$ 368,245	\$ 7,364.90
10	Drainage Mitigation	% of Subtotal A	10%	\$ 368,245	\$ 36,824.51
11	Construction Traffic Control	% of Subtotal A	6%	\$ 368,245	\$ 22,094.71
12	Temporary Erosion Control	% of Subtotal A	3%	\$ 368,245	\$ 11,047.35
<b>Subtotal B</b>					<b>\$ 158,345</b>
13	Right-of-Way Area	SF	0	\$ 0.22	\$ -
14	Construction/Right-of-Way Easement Area	% of Subtotal A & B	1%	\$ 526,591	\$ 5,265.91
15	Engineering Design & Construction Management	% of Subtotal A & B	15%	\$ 526,591	\$ 79,000.00
<b>Subtotal C</b>					<b>\$ 84,266</b>
<b>TOTAL PROJECT SUBTOTAL</b>					<b>\$ 610,856</b>
<b>25% Contingency</b>					<b>\$ 152,720</b>
<b>TOTAL ESTIMATED PROJECT COST</b>					<b>\$ 763,576</b>

**Scope Accuracy:**

**Level 1:** Project scope well understood and well defined.

**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

**Chinden Boulevard Corridor**  
**VRT Bus Stop Relocation**  
**Glenwood Street to Kent Lane**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Meredyth Sanders			Date: September, 2016		
This Estimate has a Rating of:			<b>2B</b> (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Standard 6-inch Vertical Curb & Gutter	LF	60	\$ 12.00	\$ 720.00
2	Concrete Sidewalks, thickness 5"	SY	43	\$ 35.00	\$ 1,507.38
3	Remove and Reset Roadside Sign	EA	1	\$ 90.00	\$ 90.00
4	Earthwork - Removal of Pavement	SY	32	\$ 5.00	\$ 161.51
<b>Subtotal A</b>					<b>\$ 2,479</b>
5	Utility Relocation Coordination/Support	% of Subtotal A	1%	\$ 2,479	\$ 24.79
6	Mobilization	% of Subtotal A	10%	\$ 2,479	\$ 247.89
7	Surveying	% of Subtotal A	8%	\$ 2,479	\$ 198.31
8	Drainage Mitigation	% of Subtotal A	2%	\$ 2,479	\$ 49.58
9	Construction Traffic Control	% of Subtotal A	5%	\$ 2,479	\$ 123.94
10	Temporary Erosion Control	% of Subtotal A	3%	\$ 2,479	\$ 74.37
<b>Subtotal B</b>					<b>\$ 719</b>
11	Right-of-Way Area	SF	0	\$ 0.22	\$ -
12	Construction/Right-of-Way Easement Area	% of Subtotal A & B	5%	\$ 3,198	\$ 159.89
13	Engineering Design & Construction Management	% of Subtotal A & B	35%	\$ 3,198	\$ 1,200.00
<b>Subtotal C</b>					<b>\$ 1,360</b>
<b>TOTAL PROJECT SUBTOTAL</b>					<b>\$ 4,558</b>
<b>25% Contingency</b>					<b>\$ 1,140</b>
<b>TOTAL ESTIMATED PROJECT COST</b>					<b>\$ 5,698</b>

**Scope Accuracy:**

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**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

**Chinden Boulevard Corridor**  
**VRT Bus Stop Relocation with Improved Shoulder**  
**Glenwood Street to Kent Lane**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Meredyth Sanders			Date: September, 2016		
This Estimate has a Rating of:			<b>2B</b> (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Standard 6-inch Vertical Curb & Gutter	LF	110	\$ 12.00	\$ 1,320.00
2	Concrete Sidewalks, thickness 5"	SY	98	\$ 35.00	\$ 3,446.00
3	Remove and Reset Roadside Sign	EA	1	\$ 90.00	\$ 90.00
4	Earthwork - Removal of Pavement	SY	32	\$ 5.00	\$ 161.51
5	Asphalt Repair	SY	147	\$ 25.00	\$ 3,677.41
6	Pavement Markings (Thermoplastic)	SF	42	\$ 9.00	\$ 378.00
7	Remove Tree 6" +	EA	4	\$ 290.00	\$ 1,160.00
<b>Subtotal A</b>				<b>\$</b>	<b>10,233</b>
5	Utility Relocation Coordination/Support	% of Subtotal A	1%	\$ 10,233	\$ 102.33
6	Mobilization	% of Subtotal A	10%	\$ 10,233	\$ 1,023.29
7	Surveying	% of Subtotal A	8%	\$ 10,233	\$ 818.63
8	Drainage Mitigation	% of Subtotal A	2%	\$ 10,233	\$ 204.66
9	Construction Traffic Control	% of Subtotal A	5%	\$ 10,233	\$ 511.65
10	Temporary Erosion Control	% of Subtotal A	3%	\$ 10,233	\$ 306.99
<b>Subtotal B</b>				<b>\$</b>	<b>2,968</b>
11	Right-of-Way Area	SF	0	\$ 0.22	\$ -
12	Construction/Right-of-Way Easement Area	% of Subtotal A & B	5%	\$ 13,200	\$ 660.02
13	Engineering Design & Construction Management	% of Subtotal A & B	35%	\$ 13,200	\$ 4,700.00
<b>Subtotal C</b>				<b>\$</b>	<b>5,360</b>
<b>TOTAL PROJECT SUBTOTAL</b>				<b>\$</b>	<b>18,560</b>
<b>25% Contingency</b>				<b>\$</b>	<b>4,650</b>
<b>TOTAL ESTIMATED PROJECT COST</b>				<b>\$</b>	<b>23,210</b>

**Scope Accuracy:**

**Level 1:** Project scope well understood and well defined.

**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

**Chinden Boulevard Corridor**  
**50th to Kent Asphalt Sidewalk with Extruded Curb Estimate**  
**50th Street to Kent Lane**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Zachary Sadowski			Date: September, 2016		
This Estimate has a Rating of:			<b>2B</b> (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Extruded Concrete Curb	LF	1,570	\$15.00	\$ 23,550.00
2	Delineator	EA	45	\$ 41.00	\$ 1,845.00
3	Detectable Warning Domes	EA	4	\$ 500.00	\$ 2,000.00
4	Asphalt Repair	SY	506	\$ 25.00	\$ 12,659.55
<b>Subtotal A</b>					<b>\$ 40,055</b>
5	Utility Relocation Coordination/Support	% of Subtotal A	1%	\$ 40,055	\$ 400.55
6	Mobilization	% of Subtotal A	10%	\$ 40,055	\$ 4,005.46
7	Surveying	% of Subtotal A	5%	\$ 40,055	\$ 2,002.73
8	Environmental Mitigation	% of Subtotal A	1%	\$ 40,055	\$ 400.55
9	Drainage Mitigation	% of Subtotal A	5%	\$ 40,055	\$ 2,002.73
10	Construction Traffic Control	% of Subtotal A	2.0%	\$ 40,055	\$ 801.09
11	Temporary Erosion Control	% of Subtotal A	0.5%	\$ 40,055	\$ 200.27
<b>Subtotal B</b>					<b>\$ 9,813</b>
12	Right-of-Way Area	SF	0	\$ 0.22	\$ -
13	Construction/Right-of-Way Easement Area	% of Subtotal A & B	2%	\$ 49,868	\$ 997.36
14	Engineering Design & Construction Management	% of Subtotal A & B	15%	\$ 49,868	\$ 7,500.00
<b>Subtotal C</b>					<b>\$ 8,497</b>
<b>TOTAL PROJECT SUBTOTAL</b>					<b>\$ 58,365</b>
<b>20% Contingency</b>					<b>\$ 11,680</b>
<b>TOTAL ESTIMATED PROJECT COST</b>					<b>\$ 70,045</b>

**Scope Accuracy:**

**Level 1:** Project scope well understood and well defined.

**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.



**Chinden Boulevard Corridor**  
**50th to Kent Concrete Sidewalk Estimate - High End Cost**  
**50th Street to Kent Lane**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Zachary Sadowski			Date: September, 2016		
This Estimate has a Rating of:					
			<b>2B</b>	(See rating scale guide below.)	
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Standard 6-inch Vertical Curb & Gutter	LF	1,570	\$ 12.00	\$ 18,840.00
2	36" Storm Drain Pipe RCP	LF	7,500	\$ 150.00	\$ 1,125,000.00
3	Trench Excavation	LF	7,500	\$ 6.00	\$ 45,000.00
4	Surface Restoration	LF	7,500	\$ 15.00	\$ 112,500.00
5	Concrete Driveway Approach	SY	557	\$ 40.00	\$ 22,262.16
6	Pedestrian Ramp w/Detectable Warning Domes	EA	4	\$ 1,000.00	\$ 4,000.00
7	Concrete Sidewalks, thickness 5"	SY	491	\$ 35.00	\$ 17,171.70
<b>Subtotal A</b>					<b>\$ 1,344,774</b>
8	Utility Relocation Coordination/Support	% of Subtotal A	12%	\$ 1,344,774	\$ 161,372.86
9	Mobilization	% of Subtotal A	10%	\$ 1,344,774	\$ 134,477.39
10	Surveying	% of Subtotal A	2%	\$ 1,344,774	\$ 26,895.48
11	Additional Drainage Mitigation	% of Subtotal A	10%	\$ 1,344,774	\$ 134,477.39
12	Construction Traffic Control	% of Subtotal A	6%	\$ 1,344,774	\$ 80,686.43
13	Temporary Erosion Control	% of Subtotal A	3%	\$ 1,344,774	\$ 40,343.22
<b>Subtotal B</b>					<b>\$ 578,253</b>
14	Right-of-Way Area	SF	0	\$ 0.22	\$ -
15	Construction/Right-of-Way Easement Area	% of Subtotal A & B	1%	\$ 1,923,027	\$ 19,230.27
16	Engineering Design & Construction Management	% of Subtotal A & B	15%	\$ 1,923,027	\$ 288,500.00
<b>Subtotal C</b>					<b>\$ 307,730</b>
<b>TOTAL PROJECT SUBTOTAL</b>					<b>\$ 2,230,757</b>
<b>25% Contingency</b>					<b>\$ 557,690</b>
<b>TOTAL ESTIMATED PROJECT COST</b>					<b>\$ 2,788,447</b>

**Scope Accuracy:**

**Level 1:** Project scope well understood and well defined.

**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

**Chinden Boulevard Corridor**  
**50th to Kent Concrete Sidewalk Estimate - Low End Cost**  
**50th Street to Kent Lane**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Zachary Sadowski			Date: September, 2016		
This Estimate has a Rating of:			<b>2B</b> (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Standard 6-inch Vertical Curb & Gutter	LF	1,570	\$ 12.00	\$ 18,840.00
2	36" Storm Drain Pipe RCP	LF	2,450	\$ 150.00	\$ 367,500.00
3	Trench Excavation	LF	2,450	\$ 6.00	\$ 14,700.00
4	Surface Restoration	LF	2,450	\$ 15.00	\$ 36,750.00
5	Concrete Driveway Approach	SY	557	\$ 40.00	\$ 22,262.16
6	Pedestrian Ramp w/Detectable Warning Domes	EA	4	\$ 1,000.00	\$ 4,000.00
7	Concrete Sidewalks, thickness 5"	SY	491	\$ 35.00	\$ 17,171.70
<b>Subtotal A</b>					<b>\$ 481,224</b>
8	Utility Relocation Coordination/Support	% of Subtotal A	12%	\$ 481,224	\$ 57,746.86
9	Mobilization	% of Subtotal A	10%	\$ 481,224	\$ 48,122.39
10	Surveying	% of Subtotal A	2%	\$ 481,224	\$ 9,624.48
11	Additional Drainage Mitigation	% of Subtotal A	10%	\$ 481,224	\$ 48,122.39
12	Construction Traffic Control	% of Subtotal A	6%	\$ 481,224	\$ 28,873.43
13	Temporary Erosion Control	% of Subtotal A	3%	\$ 481,224	\$ 14,436.72
<b>Subtotal B</b>					<b>\$ 206,926</b>
14	Right-of-Way Area	SF	0	\$ 0.22	\$ -
15	Construction/Right-of-Way Easement Area	% of Subtotal A & B	1%	\$ 688,150	\$ 6,881.50
16	Engineering Design & Construction Management	% of Subtotal A & B	15%	\$ 688,150	\$ 103,300.00
<b>Subtotal C</b>					<b>\$ 110,182</b>
<b>TOTAL PROJECT SUBTOTAL</b>					<b>\$ 798,332</b>
<b>25% Contingency</b>					<b>\$ 199,590</b>
<b>TOTAL ESTIMATED PROJECT COST</b>					<b>\$ 997,922</b>

**Scope Accuracy:**

**Level 1:** Project scope well understood and well defined.

**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

**Chinden Boulevard Corridor**  
**43rd to 50th Asphalt Sidewalk with Extruded Curb Estimate**  
**43rd Street to 50th Street**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Zachary Sadowski			Date: September, 2016		
This Estimate has a Rating of:			<b>2B</b> (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Extruded Concrete Curb	LF	2,460	\$15.00	\$ 36,900.00
2	Delineator	EA	94	\$ 41.00	\$ 3,854.00
3	Detectable Warning Domes	EA	14	\$ 500.00	\$ 7,000.00
4	Asphalt Repair	SY	986	\$ 25.00	\$ 24,653.10
<b>Subtotal A</b>					<b>\$ 72,407</b>
5	Utility Relocation Coordination/Support	% of Subtotal A	1%	\$ 72,407	\$ 724.07
6	Mobilization	% of Subtotal A	10%	\$ 72,407	\$ 7,240.71
7	Surveying	% of Subtotal A	5%	\$ 72,407	\$ 3,620.36
8	Environmental Mitigation	% of Subtotal A	1%	\$ 72,407	\$ 724.07
9	Drainage Mitigation	% of Subtotal A	5%	\$ 72,407	\$ 3,620.36
10	Construction Traffic Control	% of Subtotal A	2.0%	\$ 72,407	\$ 1,448.14
11	Temporary Erosion Control	% of Subtotal A	0.5%	\$ 72,407	\$ 362.04
<b>Subtotal B</b>					<b>\$ 17,740</b>
12	Right-of-Way Area	SF	0	\$ 0.22	\$ -
13	Construction/Right-of-Way Easement Area	% of Subtotal A & B	2%	\$ 90,147	\$ 1,802.94
14	Engineering Design & Construction Management	% of Subtotal A & B	15%	\$ 90,147	\$ 13,600.00
<b>Subtotal C</b>					<b>\$ 15,403</b>
<b>TOTAL PROJECT SUBTOTAL</b>					<b>\$ 105,550</b>
<b>20% Contingency</b>					<b>\$ 21,110</b>
<b>TOTAL ESTIMATED PROJECT COST</b>					<b>\$ 126,660</b>

**Scope Accuracy:**

**Level 1:** Project scope well understood and well defined.

**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

**Chinden Boulevard Corridor**  
**43rd to 50th Concrete Sidewalk Estimate**  
**43rd Street 50th Street**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Zachary Sadowski			Date: September, 2016		
This Estimate has a Rating of:			<b>2B</b> (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Standard 6-inch Vertical Curb & Gutter	LF	2,460	\$ 12.00	\$ 29,520.00
2	36" Storm Drain Pipe RCP	LF	5,050	\$ 150.00	\$ 757,500.00
3	Trench Excavation	LF	5,050	\$ 6.00	\$ 30,300.00
4	Surface Restoration	LF	5,050	\$ 15.00	\$ 75,750.00
5	Concrete Driveway Approach	SY	1,555	\$ 40.00	\$ 62,217.72
6	Pedestrian Ramp w/Detectable Warning Domes	EA	14	\$ 1,000.00	\$ 14,000.00
7	Concrete Sidewalks, thickness 5"	SY	1,278	\$ 35.00	\$ 44,720.24
<b>Subtotal A</b>					<b>\$ 1,014,008</b>
8	Utility Relocation Coordination/Support	% of Subtotal A	12%	\$ 1,014,008	\$ 121,680.95
9	Mobilization	% of Subtotal A	10%	\$ 1,014,008	\$ 101,400.80
10	Surveying	% of Subtotal A	2%	\$ 1,014,008	\$ 20,280.16
11	Drainage Mitigation	% of Subtotal A	10%	\$ 1,014,008	\$ 101,400.80
12	Construction Traffic Control	% of Subtotal A	6%	\$ 1,014,008	\$ 60,840.48
13	Temporary Erosion Control	% of Subtotal A	3%	\$ 1,014,008	\$ 30,420.24
<b>Subtotal B</b>					<b>\$ 436,023</b>
14	Right-of-Way Area	SF	0	\$ 0.22	\$ -
15	Construction/Right-of-Way Easement Area	% of Subtotal A & B	1%	\$ 1,450,031	\$ 14,500.31
16	Engineering Design & Construction Management	% of Subtotal A & B	15%	\$ 1,450,031	\$ 217,600.00
<b>Subtotal C</b>					<b>\$ 232,100</b>
<b>TOTAL PROJECT SUBTOTAL</b>					<b>\$ 1,682,132</b>
<b>25% Contingency</b>					<b>\$ 420,540</b>
<b>TOTAL ESTIMATED PROJECT COST</b>					<b>\$ 2,102,672</b>

**Scope Accuracy:**

**Level 1:** Project scope well understood and well defined.

**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

**Chinden Boulevard Corridor**  
**Uncoordinated Pedestrian Crossing at 43rd Street**  
**43rd Street and Chinden Boulevard**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Meredyth Sanders			Date: September, 2016		
This Estimate has a Rating of:			<b>2B</b> (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Pedestrian Hybrid Beacon	LS	1	\$30,000.00	\$ 30,000.00
2	Pedestrian Ramp with Detectable Warning Domes	EA	2	\$1,000.00	\$ 2,000.00
3	Pavement Markings (Thermoplastic)	SF	600	\$10.00	\$ 6,000.00
4	Traffic Signal Interconnect Junction Box	EA	1	\$1,050.00	\$ 1,050.00
5	Install Cabinet and Service Pedestal	EA	1	\$5,200.00	\$ 5,200.00
				<b>Subtotal A</b>	<b>\$ 44,250</b>
6	Utility Relocation Coordination/Support	% of Subtotal A	3%	\$ 44,250	\$ 1,327.50
7	Mobilization	% of Subtotal A	10%	\$ 44,250	\$ 4,425.00
8	Surveying	% of Subtotal A	5%	\$ 44,250	\$ 2,212.50
9	Environmental Mitigation	% of Subtotal A	0.5%	\$ 44,250	\$ 221.25
10	Drainage Mitigation	% of Subtotal A	0.5%	\$ 44,250	\$ 221.25
11	Construction Traffic Control	% of Subtotal A	10%	\$ 44,250	\$ 4,425.00
12	Temporary Erosion Control	% of Subtotal A	0.5%	\$ 44,250	\$ 221.25
				<b>Subtotal B</b>	<b>\$ 13,054</b>
13	Right-of-Way Area	SF	0	\$ 0.22	\$ -
14	Construction/Right-of-Way Easement Area	% of Subtotal A & B	2%	\$ 57,304	\$ 1,146.08
15	Engineering Design & Construction Management	% of Subtotal A & B	10%	\$ 57,304	\$ 5,800.00
				<b>Subtotal C</b>	<b>\$ 6,946</b>
				<b>TOTAL PROJECT SUBTOTAL</b>	<b>\$ 64,250</b>
				<b>15% Contingency</b>	<b>\$ 9,640</b>
				<b>TOTAL ESTIMATED PROJECT COST</b>	<b>\$ 73,890</b>

**Scope Accuracy:**

**Level 1:** Project scope well understood and well defined.

**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

**Chinden Boulevard Corridor**  
**Coordinated Pedestrian Crossing at 43rd Street**  
**43rd Street and Chinden Boulevard**  
**COMPASS**



**Engineer's Estimate - Conceptual**

Prepared By: Nick Foster, AICP, Evan Reed, PE, PTOE, & Meredyth Sanders			Date: September, 2016		
This Estimate has a Rating of:			<b>2B</b> (See rating scale guide below.)		
ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST	
1	Pedestrian Hybrid Beacon	LS	1	\$30,000.00	\$ 30,000.00
2	Pedestrian Ramp with Detectable Warning Domes	EA	2	\$ 1,000.00	\$ 2,000.00
3	Pavement Markings (Thermoplastic)	SF	600	\$ 10.00	\$ 6,000.00
4	Traffic Signal Interconnect Junction Box	EA	1	\$ 1,050.00	\$ 1,050.00
5	Interconnect Splice Vault	EA	1	\$ 2,000.00	\$ 2,000.00
6	Install Cabinet and Service Pedestal	EA	1	\$ 5,200.00	\$ 5,200.00
<b>Subtotal A</b>				\$	<b>46,250</b>
7	Utility Relocation Coordination/Support	% of Subtotal A	3%	\$ 46,250	\$ 1,387.50
8	Mobilization	% of Subtotal A	10%	\$ 46,250	\$ 4,625.00
9	Surveying	% of Subtotal A	5%	\$ 46,250	\$ 2,312.50
10	Environmental Mitigation	% of Subtotal A	0.5%	\$ 46,250	\$ 231.25
11	Drainage Mitigation	% of Subtotal A	0.5%	\$ 46,250	\$ 231.25
12	Construction Traffic Control	% of Subtotal A	10%	\$ 46,250	\$ 4,625.00
13	Temporary Erosion Control	% of Subtotal A	0.5%	\$ 46,250	\$ 231.25
<b>Subtotal B</b>				\$	<b>13,644</b>
14	Right-of-Way Area	SF	0	\$ 0.22	\$ -
15	Construction/Right-of-Way Easement Area	% of Subtotal A & B	2%	\$ 59,894	\$ 1,197.88
16	Engineering Design & Construction Management	% of Subtotal A & B	12%	\$ 59,894	\$ 7,200.00
<b>Subtotal C</b>				\$	<b>8,398</b>
<b>TOTAL PROJECT SUBTOTAL</b>				\$	<b>68,292</b>
<b>15% Contingency</b>				\$	<b>10,250</b>
<b>TOTAL ESTIMATED PROJECT COST</b>				\$	<b>78,542</b>

**Scope Accuracy:**

**Level 1:** Project scope well understood and well defined.

**Level 2:** Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

**Level 3:** Project scope is a "vision" with limited detail.

**Engineering Effort:**

**Level A:** Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

**Level B:** Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

**Level C:** No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

Appendix D Environmental Scan  
Documents

## GLENWOOD TO KENT ENVIRONMENTAL SCAN

An environmental scan was conducted to identify, at a high-level, potential environmental constraints and considerations within the Glenwood to Kent study area. The study area is generally illustrated by the boundary in Figure 1, which is approximately within ¼ mile of the trail on all sides. This information will assist the project team in evaluating the environmental impacts associated with the proposed crossing alternative. This scan involved only a cursory desk review, with no detailed desk investigations or field reviews.



Figure 1 – Glenwood to Kent Study Area

### Cultural and Historic Resources

Research of the National Register of Historic Places in Idaho from the State Historic Preservation Office (SHPO) indicated there are no listed historic places in the project area (Reference 1).



## Known/Suspected Hazardous Materials

The Environmental Protection Agency (EPA) Enviromapper program was accessed online and was used to determine possible hazardous materials within the project area (Reference 2). Hazardous materials, emitters or incidents catalogued by the Enviromapper program include superfund sites, hazardous waste generators, brownfield properties, and toxic releases to air, water or land.

Review of the Enviromapper database indicated that there are 5 hazardous waste generators located within the study area. Hazardous waste generators are typically commercial or industrial establishments that produce hazardous waste. Hazardous waste generators are subject to EPA regulations and oversight regarding the safe use and disposal of hazardous waste. The Enviromapper program did not indicate any spills or incidents related to the 5 hazardous waste generators.

The Idaho Department of Environmental Quality (IDEQ) maintains a database of active and closed Underground Storage Tanks (USTs) and Leaking Underground Storage Tanks (LUSTs) sites. A review of IDEQ's database revealed 17 USTs and 1 LUST within the study area (Reference 3).

## Threatened/Endangered Species

The US Fish & Wildlife Service (USFWS) has not identified the project area as proposed critical habitat for local threatened or endangered species. Slickspot Peppergrass is a proposed endangered species that may occur in the project area, and the Yellow-billed Cuckoo is a threatened species that may occur in the project area (Reference 4).

Coordination with the Idaho Department of Fish and Wildlife is recommended prior to final design to ensure impacts to threatened and endangered species are avoided or minimized. If federal funds are used for design and/or construction, a No Effects Statement, Biological Evaluation, or Biological Assessment must be prepared.

The USFWS has also identified 21 species of migratory birds that could potentially be affected by construction activities within the study area. Appendix A provides a complete list of these birds as well as additional information from the USFWS website.

## Wetlands & Surface Water

Figure 2 displays a data from the National Wetlands Inventory database managed by the U.S. Fish and Wildlife Service (Reference 5). The map indicates Riverine Wetlands within the Study Area. No wetlands are known to be located in the path of the proposed projects.

The Boise River runs approximately 0.50 miles to the north of the study area and is designated as a "water of the U.S.". Surface water discharged to the Boise River may be subject to regulations under Section 404 of the Clean Water Act by the U.S. Army Corps of Engineers.

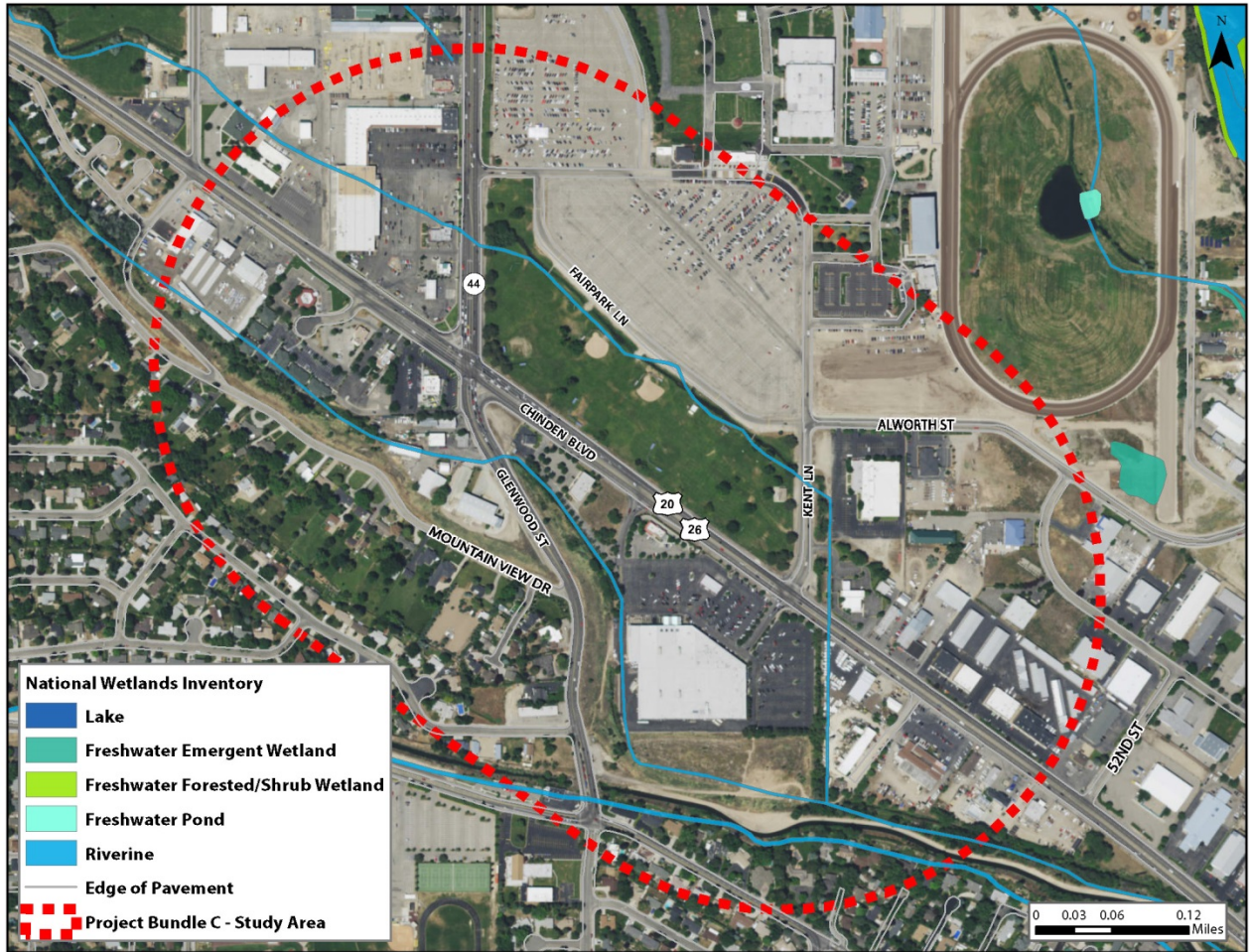


Figure 2 – Glenwood to Kent Wetlands Map

## 50<sup>TH</sup> TO KENT ENVIRONMENTAL SCAN

An environmental scan was conducted to identify, at a high-level, potential environmental constraints and considerations within the 50th Street to Kent Lane sidewalk study area. The study area is generally illustrated by the boundary in Figure 3, which is approximately within ¼ mile of the intersection on all sides. This information will assist the project team in evaluating the environmental impacts associated with the proposed crossing alternative. This scan involved only a cursory desk review, with no detailed desk investigations or field reviews.



**Figure 3 - 50th to Kent Study Area**

### Cultural and Historic Resources

Research of the National Register of Historic Places in Idaho from the State Historic Preservation Office (SHPO) indicated there are no listed historic places in the project area (Reference 1).

### Known/Suspected Hazardous Materials

The Environmental Protection Agency (EPA) Enviromapper program was accessed online and was used to determine possible hazardous materials within the project area (Reference 2). Hazardous materials, emitters or incidents catalogued by the Enviromapper program include superfund sites, hazardous waste generators, brownfield properties, and toxic releases to air, water or land.

Review of the Enviromapper database indicated that there are 12 hazardous waste generators located within the study area. Hazardous waste generators are typically commercial or industrial establishments that produce hazardous waste. Hazardous waste generators are subject to EPA

regulations and oversight regarding the safe use and disposal of hazardous waste. The Enviromapper program did not indicate any spills or incidents related to the 12 hazardous waste generators.

The Idaho Department of Environmental Quality (IDEQ) maintains a database of active and closed Underground Storage Tanks (USTs) and Leaking Underground Storage Tanks (LUSTs) sites. A review of IDEQ's database revealed 23 USTs and 5 LUSTs within the study area (Reference 3).

### Threatened/Endangered Species

The US Fish & Wildlife Service (USFWS) has not identified the project area as proposed critical habitat for local threatened or endangered species. Slickspot Peppergrass is a proposed endangered species that may occur in the project area, and the Yellow-billed Cuckoo is a threatened species that may occur in the project area (Reference 4).

Coordination with the Idaho Department of Fish and Wildlife is recommended prior to final design to ensure impacts to threatened and endangered species are avoided or minimized. If federal funds are used for design and/or construction, a No Effects Statement, Biological Evaluation, or Biological Assessment must be prepared.

The USFWS has also identified 21 species of migratory birds that could potentially be affected by construction activities within the study area. Appendix A provides a complete list of these birds as well as additional information from the USFWS website.

### Wetlands & Surface Water

Figure 4 displays data from the National Wetlands Inventory database managed by the U.S. Fish and Wildlife Service (Reference 5). The map indicates Riverine Wetlands and Freshwater Emergent Wetlands within the Study Area.

The Boise River runs approximately 0.45 miles to the north of the study area and is designated as a "water of the U.S.". Surface water discharged to the Boise River may be subject to regulations under Section 404 of the Clean Water Act by the U.S. Army Corps of Engineers.



Figure 4 - 50th to Kent Wetlands Map

### 43<sup>RD</sup> TO 50<sup>TH</sup> ENVIRONMENTAL SCAN

An environmental scan was conducted to identify, at a high-level, potential environmental constraints and considerations within the 43rd Street to 50th Street sidewalk study area. The study area is generally illustrated by the boundary in Figure 5, which is approximately within ¼ mile of the sidewalk on all sides. This information will assist the project team in evaluating the environmental impacts associated with the proposed crossing alternative. This scan involved only a cursory desk review, with no detailed desk investigations or field reviews.



Figure 5 - 43<sup>rd</sup> to 50th Study Area

### Cultural and Historic Resources

Research of the National Register of Historic Places in Idaho from the State Historic Preservation Office (SHPO) indicated there are no listed historic places in the project area (Reference 1).

### Known/Suspected Hazardous Materials

The Environmental Protection Agency (EPA) Enviromapper program was accessed online and was used to determine possible hazardous materials within the project area (Reference 2). Hazardous materials, emitters or incidents catalogued by the Enviromapper program include superfund sites, hazardous waste generators, brownfield properties, and toxic releases to air, water or land.

Review of the Enviromapper database indicated that there are 20 hazardous waste generators located within the study area. Hazardous waste generators are typically commercial or industrial establishments that produce hazardous waste. Hazardous waste generators are subject to EPA

regulations and oversight regarding the safe use and disposal of hazardous waste. The Enviromapper program did not indicate any spills or incidents related to the 20 hazardous waste generators.

The Idaho Department of Environmental Quality (IDEQ) maintains a database of active and closed Underground Storage Tanks (USTs) and Leaking Underground Storage Tanks (LUSTs) sites. A review of IDEQ's database revealed 12 USTs and 8 LUSTs within the study area (Reference 3).

### Threatened/Endangered Species

The US Fish & Wildlife Service (USFWS) has not identified the project area as proposed critical habitat for local threatened or endangered species. Slickspot Peppergrass is a proposed endangered species that may occur in the project area, and the Yellow-billed Cuckoo is a threatened species that may occur in the project area (Reference 4).

Coordination with the Idaho Department of Fish and Wildlife is recommended prior to final design to ensure impacts to threatened and endangered species are avoided or minimized. If federal funds are used for design and/or construction, a No Effects Statement, Biological Evaluation, or Biological Assessment must be prepared.

The USFWS has also identified 21 species of migratory birds that could potentially be affected by construction activities within the study area. Appendix A provides a complete list of these birds as well as additional information from the USFWS website.

### Wetlands & Surface Water

Figure 6 displays data from the National Wetlands Inventory database managed by the U.S. Fish and Wildlife Service (Reference 5). The map indicates Riverine Wetlands, Freshwater Emergent Wetlands and Freshwater Forested/Shrub Wetlands within the Study Area.

The Boise River runs approximately 0.45 miles to the north of the study area and is designated as a "water of the U.S.". Surface water discharged to the Boise River may be subject to regulations under Section 404 of the Clean Water Act by the U.S. Army Corps of Engineers.

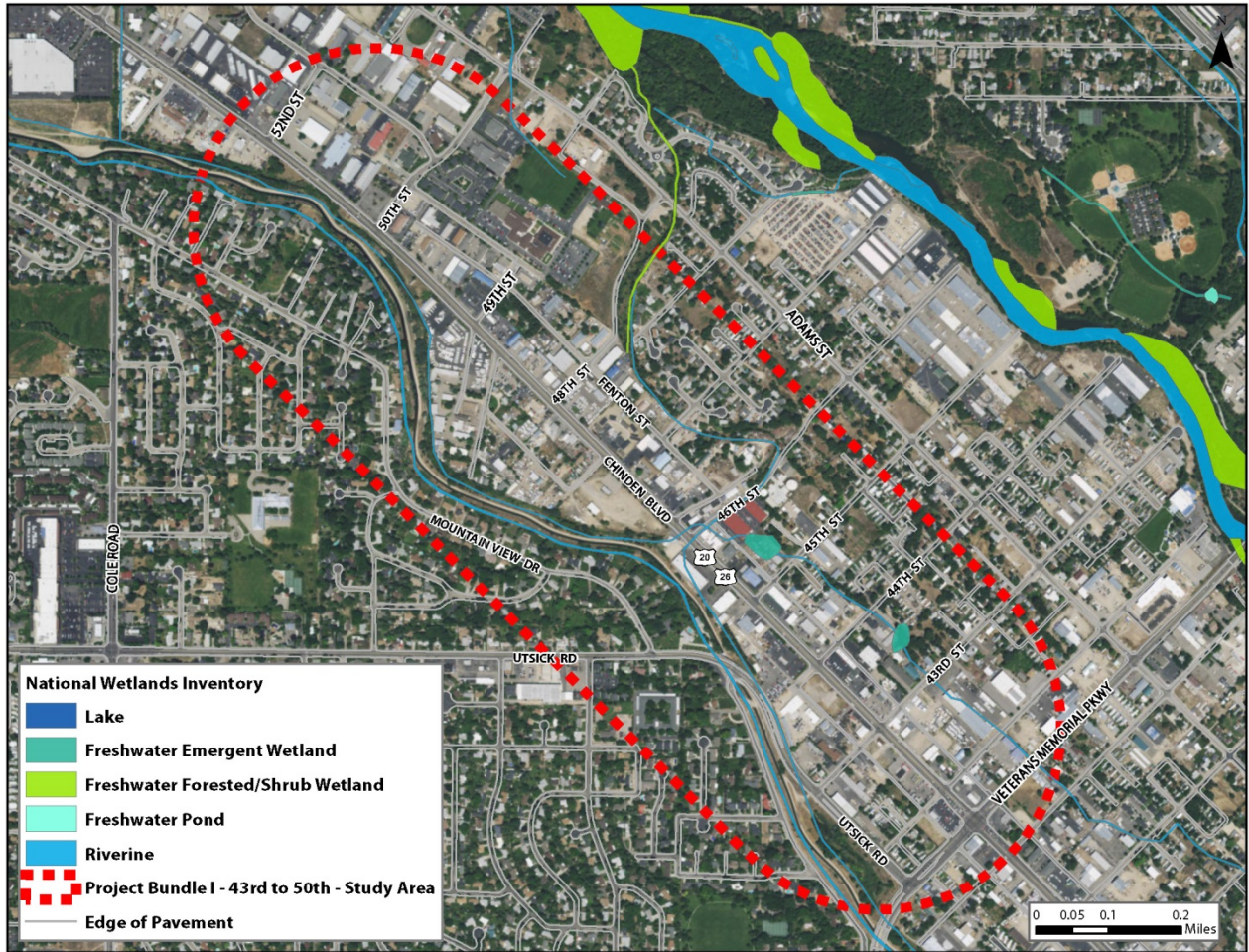
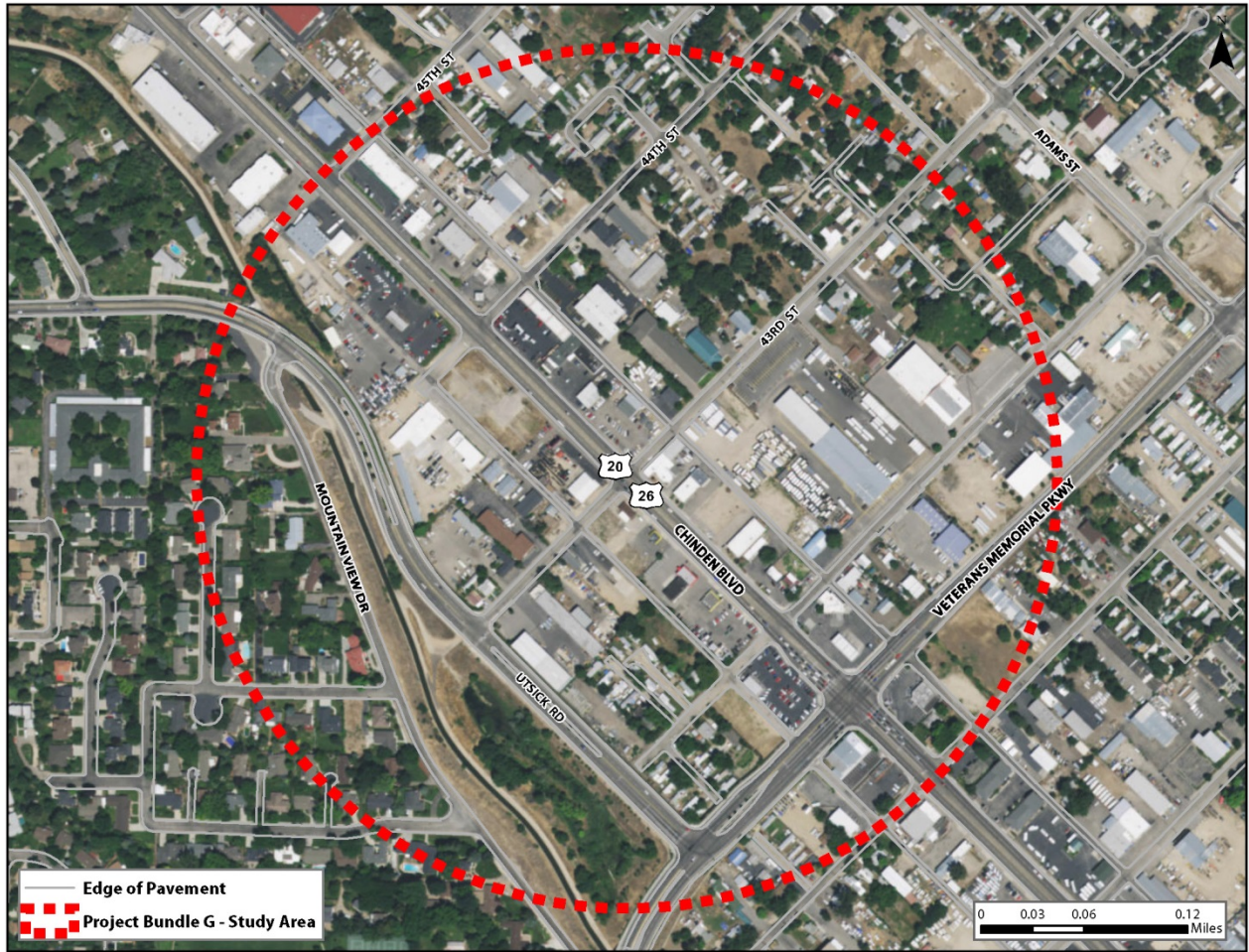


Figure 6 - 43<sup>rd</sup> to 50th Wetlands Map

### 43RD STREET CROSSING ENVIRONMENTAL SCAN

An environmental scan was conducted to identify, at a high-level, potential environmental constraints and considerations within the Chinden Boulevard/43<sup>rd</sup> Street intersection study area. The study area is generally illustrated by the boundary in Figure 7, which is approximately within ¼ mile from the intersection on each approach. This information will assist the project team in evaluating the environmental impacts associated with the proposed crossing alternative. This scan involved only a cursory desk review, with no detailed desk investigations or field reviews.





**Figure 7 - 43<sup>rd</sup> Street Crossing Study Area**

### Cultural and Historic Resources

Research of the National Register of Historic Places in Idaho from the State Historic Preservation Office (SHPO) indicated there are no listed historic places in the project area (Reference 1).

### Known/Suspected Hazardous Materials

The Environmental Protection Agency (EPA) Enviromapper program was accessed online and was used to determine possible hazardous materials within the project area (Reference 2). Hazardous materials, emitters or incidents catalogued by the Enviromapper program include superfund sites, hazardous waste generators, brownfield properties, and toxic releases to air, water or land.

Review of the Enviromapper database indicated that there are 11 hazardous waste generators located within the study area. Hazardous waste generators are typically commercial or industrial establishments that produce hazardous waste. Hazardous waste generators are subject to EPA

regulations and oversight regarding the safe use and disposal of hazardous waste. The Enviromapper program did not indicate any spills or incidents related to the 11 hazardous waste generators.

The Idaho Department of Environmental Quality (IDEQ) maintains a database of active and closed Underground Storage Tanks (USTs) and Leaking Underground Storage Tanks (LUSTs) sites. A review of IDEQ's database revealed 21 USTs and 6 LUSTs within the study area (Reference 3).

### Threatened/Endangered Species

The US Fish & Wildlife Service (USFWS) has not identified the project area as proposed critical habitat for local threatened or endangered species. Slickspot Peppergrass is a proposed endangered species that may occur in the project area, and the Yellow-billed Cuckoo is a threatened species that may occur in the project area (Reference 4).

Coordination with the Idaho Department of Fish and Wildlife is recommended prior to final design to ensure impacts to threatened and endangered species are avoided or minimized. If federal funds are used for design and/or construction, a No Effects Statement, Biological Evaluation, or Biological Assessment must be prepared.

The USFWS has also identified 21 species of migratory birds that could potentially be affected by construction activities within the study area. Appendix A provides a complete list of these birds as well as additional information from the USFWS website.

### Wetlands & Surface Water

Figure 8 displays data from the National Wetlands Inventory database managed by the U.S. Fish and Wildlife Service (Reference 5). The map indicates Riverine Wetlands and Freshwater Emergent Wetlands within the study area.

The Boise River runs approximately 0.65 miles to the north of the study area and is designated as a "water of the U.S.". Surface water discharged to the Boise River may be subject to regulations under Section 404 of the Clean Water Act by the U.S. Army Corps of Engineers.

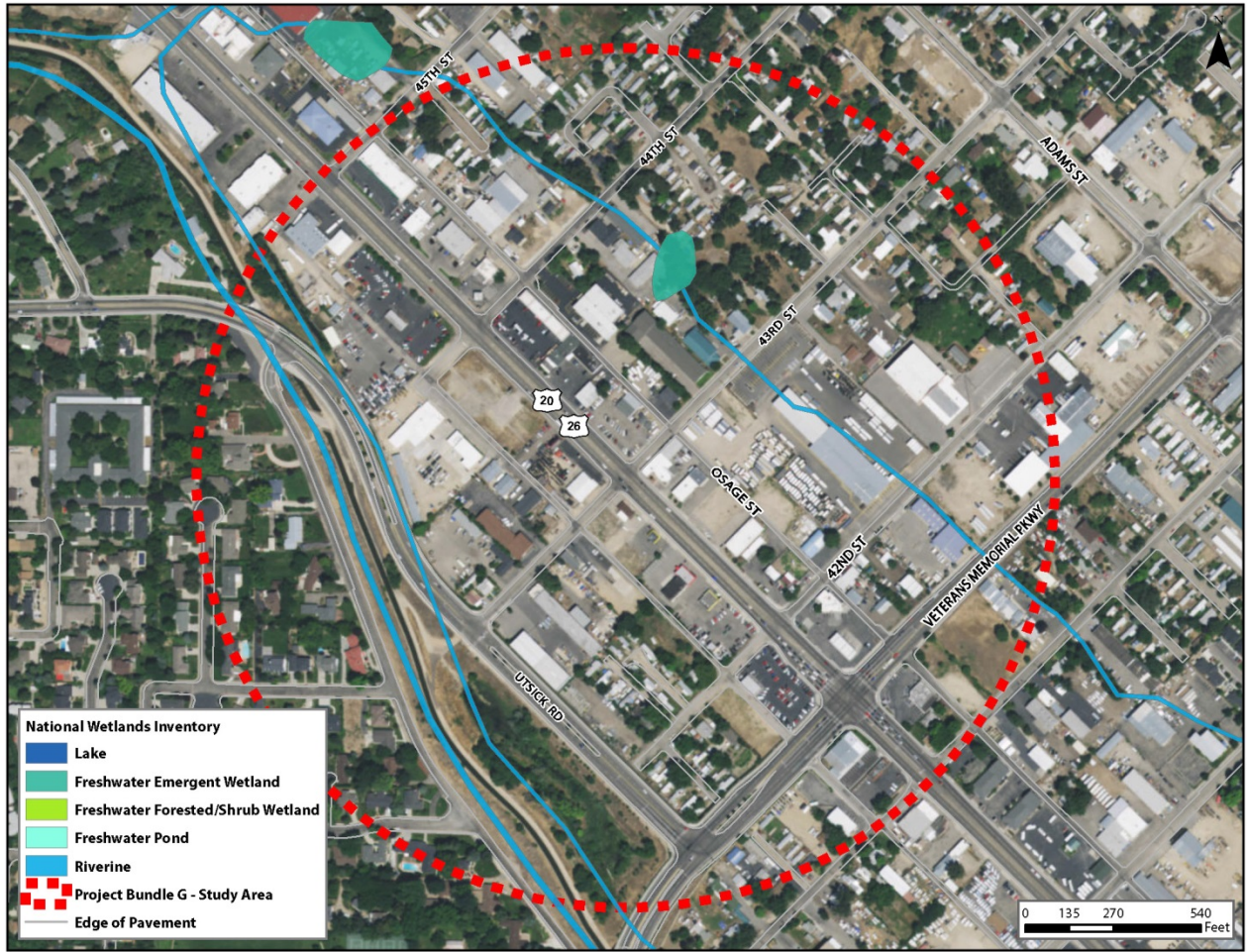


Figure 8 - 43<sup>rd</sup> Street Crossing Wetlands Map

## REFERENCES

1. Idaho State Historical Preservation Society. The National Register of Historic Places in Idaho. [http://history.idaho.gov/sites/default/files/uploads/National\\_Register\\_Properties\\_Idaho.pdf](http://history.idaho.gov/sites/default/files/uploads/National_Register_Properties_Idaho.pdf). Accessed on June 29, 2016.
2. U.S. Environmental Protection Agency. Enviromapper. <http://www.epa.gov/emefdata/em4ef.html>. Accessed on June 29, 2016.
3. Idaho Department of Environmental Quality. Underground Storage Tank Database. <http://www.deq.idaho.gov/waste/ustlust/>. Accessed on June 29, 2016.
4. U.S. Fish and Wildlife Service. Endangered, Threatened, Proposed, and Candidate Species with Associated Proposed and Critical Habitats in Idaho. <https://ecos.fws.gov/ipac/>. Accessed on June 29, 2016.
5. U.S. Fish and Wildlife Service. National Wetlands Inventory. <http://www.fws.gov/wetlands/Data/Mapper.html>. Accessed on June 29, 2016.

Appendix A    Endangered Species Act  
Resources

# IPaC My project Ada County, Idaho

U.S. Fish & Wildlife Service

This project potentially impacts **24 resources** managed or regulated by the U.S. Fish & Wildlife Service.

## Endangered species

Proposed, candidate, threatened, and endangered species are managed by the Endangered Species Program of the U.S. Fish & Wildlife Service.

The list of species below are those that may occur or could potentially be affected by activities in this location:

### Birds

**Yellow-billed Cuckoo** *Coccyzus americanus*

Threatened (A species likely to become endangered within the foreseeable future throughout all or a significant portion of its range)

### Flowering Plants

**Slickspot Peppergrass** *Lepidium papilliferum*

Proposed Endangered (Species proposed for official listing as endangered)

### Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS IN THIS LOCATION

# Migratory birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.<sup>[1]</sup> There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

---

1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The following species of migratory birds could potentially be affected by activities in this location:

**Bald Eagle** *Haliaeetus leucocephalus*

Season: Wintering

**Black Rosy-finch** *Leucosticte atrata*

Season: Year-round

**Brewer's Sparrow** *Spizella breweri*

Season: Breeding

**Burrowing Owl** *Athene cunicularia*

Season: Breeding

**Calliope Hummingbird** *Stellula calliope*

Season: Breeding

**Cassin's Finch** *Carpodacus cassinii*

Season: Year-round

**Eared Grebe** *Podiceps nigricollis*

Season: Breeding

**Ferruginous Hawk** *Buteo regalis*

Season: Year-round

**Fox Sparrow** *Passerella iliaca*

Season: Breeding

**Greater Sage-grouse** *Centrocercus urophasianus*

Season: Year-round

**Green-tailed Towhee** *Pipilo chlorurus*

Season: Breeding

**Lewis's Woodpecker** *Melanerpes lewis*

Season: Breeding

**Loggerhead Shrike** *Lanius ludovicianus*

Season: Breeding

**Long-billed Curlew** *Numenius americanus*

Season: Breeding

**Peregrine Falcon** *Falco peregrinus*

Season: Breeding

**Rufous Hummingbird** *selasphorus rufus*

Season: Breeding

**Sage Thrasher** *Oreoscoptes montanus*

Season: Breeding

**Short-eared Owl** *Asio flammeus*

Season: Year-round

**Swainson's Hawk** *Buteo swainsoni*



Season: Breeding

**Western Grebe** *aechmophorus occidentalis*

Season: Breeding

**Willow Flycatcher** *Empidonax traillii*

Season: Breeding

## Wildlife refuges and fish hatcheries

THERE ARE NO REFUGES OR FISH HATCHERIES IN THIS LOCATION

## Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

This location overlaps all or part of the following wetlands:

### Freshwater Emergent Wetland

**PEM1C**

Appendix E 43<sup>rd</sup> Street Crossing Analysis,  
ANSER Charter School Support  
E-mail, and Garden City  
Support Letter



## TECHNICAL MEMORANDUM

### Chinden Boulevard Corridor Project Development

43rd Street Crossing - Queuing Analysis

Date: September 2016

Project #: 18833

A pedestrian hybrid beacon (PHB) is being considered at the Chinden Boulevard/43<sup>rd</sup> Street intersection in order to better accommodate pedestrians attempting to cross Chinden Boulevard. This memorandum summarizes an initial assessment of motor vehicle queues on Chinden Boulevard at the crossing. The Chinden Boulevard/43<sup>rd</sup> Street intersection is located approximately 850 feet northwest of the Chinden Boulevard/Veterans Memorial Parkway intersection, and there is a risk that vehicles stopped at the PHB could spill back to Veterans Memorial Parkway.

The method described in this memorandum estimates the number of northwest-bound vehicles on Chinden Boulevard that will queue at Chinden Boulevard/43<sup>rd</sup> Street during the time that the PHB is activated. Based on these approximate calculations, queues caused by a PHB at Chinden Boulevard/43<sup>rd</sup> Street are not anticipated to extend back to Chinden Boulevard/Veterans Memorial Parkway, assuming average motor vehicle flow rates on Chinden Boulevard. Table 1 summarizes the findings of the analysis.

**Table 1 43<sup>rd</sup> Street Crossing – Queuing Analysis Results**

Analysis Results	AM Peak Period	PM Peak Period
Pedestrian Hybrid Beacon Activation Time <sup>1</sup>	27 seconds	27 seconds
Hourly Westbound Vehicle Flow Volume on Chinden <sup>2</sup>	1,254 vehicles	1,806 vehicles
Pedestrian Hybrid Beacon Actuations <sup>3</sup>	20 actuations	20 actuations
Vehicle Queue Length	5 vehicles/125 feet <sup>4</sup>	7 vehicles/175 feet <sup>4</sup>
Queue Clearance Time <sup>5</sup>	13 seconds	17 seconds

<sup>1</sup>Based on the standard walk time and pedestrian clearance calculation specified in the MUTCD

<sup>2</sup>Based on adjusted flow volumes at Veteran’s Memorial Parkway intersection from ACHD’s latest AM and PM synchro models

<sup>3</sup>Minimum number of crossings required to meet the MUTCD warrant for a PHB

<sup>4</sup>Assumed length per passenger car equivalent of 25 feet per vehicle

<sup>5</sup>Assumed start-up-lost time of 3 seconds and 2-second headways

More details regarding this analysis and the assumptions used in coming to this finding are summarized in the sections below.

## CALCULATING WALK AND PEDESTRIAN CLEARANCE INTERVALS AT CHINDEN BOULEVARD AND 43<sup>RD</sup> STREET

The project team calculated the time required for a pedestrian to cross Chinden Boulevard at 43<sup>rd</sup> Street based on roadway geometry and guidance from the Manual on Uniform Traffic Control Devices (MUTCD) guidance.

### Pedestrian Clearance Calculation

Pedestrian Clearance = (Distance (feet) from Curb to Curb) / 3.5 feet/sec

Pedestrian Clearance at Chinden Boulevard/43<sup>rd</sup> Street = 70 feet / 3.5 feet/sec

The clearance time required for pedestrians crossing Chinden Boulevard at 43<sup>rd</sup> Street is **20 seconds**.

### Walk Time Calculation

Walk + Pedestrian Clearance = (Distance (feet) from Push Button to Opposite Curb) / 3.0 feet/sec

Walk + Pedestrian Clearance at Chinden Boulevard/43<sup>rd</sup> Street = 76 feet / 3.0 feet/sec (Assuming the push button is located approximately 6 feet from the curb.)

The walk plus pedestrian clearance required for pedestrians crossing Chinden Boulevard at 43<sup>rd</sup> Street is 25.3 seconds. While this results in a walk interval of 5.3 seconds assuming a pedestrian clearance of 20 seconds, MUTCD guidance states that the walk interval should be at least **7 seconds** in length.

### Total Pedestrian Time

The total crossing time allotted to pedestrians at the PHB should be at least **27 seconds**.

## ESTIMATING VEHICLE FLOW RATES ON CHINDEN BOULEVARD AT 43<sup>RD</sup> STREET

The project team estimated AM and PM flow rates for vehicles traveling northwest on Chinden Boulevard through the intersection of Chinden Boulevard and 43<sup>rd</sup> Street using the adjusted flow volumes at the Veterans Memorial Parkway intersection from ACHD's latest AM and PM Synchro models. The adjusted flow volumes modify peak hour volumes using the peak hour factors.

### AM Flow Rate

Adjusted flow volumes at Chinden Boulevard and Veterans Memorial Parkway during the AM peak period:

- Northwest-through (NWT): 849 vehicles per hour
- Southwest-right (SWR): 43 vehicles per hour
- Northeast-left (NEL): 362 vehicles per hour

- **Combined volume: 1,254 vehicles per hour**

The combined NWT, SWR, and NEL adjusted flow volumes (1,254 vehicles per hour) from Chinden Boulevard/Veterans Memorial Parkway were carried through as the northwest-bound volume at the intersection of Chinden Boulevard/43<sup>rd</sup> Street. This combined volume was used to estimate an AM flow rate of **0.17 vehicles per second per lane** for the northwest-bound movement at Chinden Boulevard/43<sup>rd</sup> Street.

### PM Flow Rate

Adjusted flow volumes at Chinden Boulevard and Veterans Memorial Parkway during the PM peak period:

- NWT: 1,407 vehicles per hour
- SWR: 71 vehicles per hour
- NEL: 328 vehicles per hour
- **Combined volume: 1,806 vehicles per hour**

The combined NWT, SWR, and NEL adjusted flow volumes (1,806 vehicles per hour) from Chinden Boulevard/Veterans Memorial Parkway were carried through as the northwest-bound volume at the intersection of Chinden Boulevard/43<sup>rd</sup> Street. This combined volume was used to estimate a PM flow rate of **0.25 vehicles per second per lane** for the northwest-bound movement at Chinden Boulevard/43<sup>rd</sup> Street.

## ESTIMATING QUEUES AND QUEUE CLEARANCE AT CHINDEN BOULEVARD AND 43RD STREET

The project team estimated vehicle queues and queue clearance for northwest-bound vehicles at Chinden Boulevard/43<sup>rd</sup> Street during the AM and PM peak periods. This analysis assumes that a PHB located at Chinden Boulevard/43<sup>rd</sup> Street will be activated approximately 20 times during the AM and PM peak periods (i.e., the minimum number of crossings needed to meet the MUTCD warrant for a PHB), meaning that on average there will be 3 minutes between each activation.

### AM Queues

If the PHB activates during the AM period, vehicles traveling northwest along Chinden Boulevard at a flow rate of 0.17 vehicles per second per lane will have to wait 27 seconds for the PHB to clear the pedestrian interval. This is a conservative estimate, since motorists are permitted to stop and then proceed if the crosswalk is clear during the “flashing don’t walk” phase at a PHB crossing.

Queue = Wait Time \* Flow Rate

AM Queue at Chinden Boulevard/43<sup>rd</sup> Street = 27 seconds \* 0.17 vehicles per second per lane

A queue of approximately **5 vehicles per lane** will form while the PHB is serving pedestrians. Using an assumed length per passenger car equivalent of 25 feet per vehicle, the northwest-bound vehicle queue will extend approximately 125 feet from the Chinden Boulevard/43<sup>rd</sup> Street intersection.

This queue length is based on an average flow rate on Chinden Boulevard. Actual queue lengths will vary depending on the actual flow rate during the time the PHB is activated. An uncoordinated system where activations occur during the peak arrival times may result in longer queues, as would closely timed activations in an uncoordinated system. A coordinated system may result in lower queues.

### AM Queue Clearance

The time that it will take for a PHB-induced queue to clear at the Chinden Boulevard/43<sup>rd</sup> Street intersection is estimated based on the following:

Queue Clearance Time = Start-Up-Lost Time + (Queue \* Headway)

AM Queue Clearance Time at Chinden Boulevard/43<sup>rd</sup> Street = 3 seconds + [(5 vehicles per lane)\*(2-second headways)]

With a queue of 5 vehicles per lane, it will take a PHB-induced queue approximately 13 seconds to clear after the 27 seconds they are stopped by the PHB.

### PM Queues

If the PHB activates in the PM period, vehicles traveling northwest along Chinden Boulevard at a flow rate of 0.25 vehicles per second per lane will have to wait 27 seconds for the PHB to time the pedestrian interval. This is a conservative estimate, since motorists are permitted to stop and then proceed if the crosswalk is clear during the “flashing don’t walk” phase at a PHB crossing.

Queue = Wait Time \* Flow Rate

AM Queue at Chinden Boulevard/43<sup>rd</sup> Street = 27 seconds \* 0.25 vehicles per second per lane

A queue of approximately **7 vehicles per lane** will form while the PHB is serving pedestrians. Using an assumed length per passenger car equivalent of 25 feet per vehicle, the northwest-bound vehicle queue will extend approximately 175 feet from the Chinden Boulevard/43<sup>rd</sup> Street intersection.

This queue length is based on an average flow rate on Chinden Boulevard. Actual queue lengths will vary depending on the actual flow rate during the time the PHB is activated. An uncoordinated system where activations occur during the peak arrival times may result in longer queues, as would closely timed activations in an uncoordinated system. A coordinated system may result in lower queues.

## PM Queue Clearance

The time that it will take for a PHB-induced queue to clear at the Chinden Boulevard/43<sup>rd</sup> Street intersection is estimated based on the following:

$$\text{Queue Clearance Time} = \text{Start-Up-Lost Time} + (\text{Queue} * \text{Headway})$$

$$\text{PM Queue Clearance Time at Chinden Boulevard/43}^{\text{rd}} \text{ Street} = 3 \text{ seconds} + [(7 \text{ vehicles per lane}) * (2\text{-second headways})]$$

With a queue of 7 vehicles per lane, it will take a PHB-induced queue approximately 17 seconds to clear after the 27 seconds they are stopped by the PHB.

## PHB ASSESSMENT WITHIN SYNCHRO

The pedestrian hybrid beacon was roughly modeled in synchro based on volumes and timing parameters for the Veteran's Memorial Parkway intersection from ACHD's latest AM and PM synchro models. Table 2 summarizes the queueing report created for both AM and PM scenarios. Figure 1 shows the time-space diagram with 90<sup>th</sup> percentile flow and green times for the intersection of 43<sup>rd</sup> Street and Chinden Boulevard during the PM Peak period. *Appendix A* includes the analysis worksheets from synchro.

**Table 2 43<sup>rd</sup> Street Crossing – Synchro Queueing Analysis Results**

Analysis Results	AM Peak Period	PM Peak Period
NWT V/C Ratio	0.46	0.67
NWT Delay	2.2	5.7
Queue Length 95 <sup>th</sup> (ft)	m11 <sup>1</sup>	m20 <sup>1</sup>

<sup>1</sup>Volume for 95th percentile queue is metered by upstream signal



**Figure 1 Time-Space Diagram for 43<sup>rd</sup> Street and Chinden Boulevard, PM Peak Period**

## Appendix A Synchro Analysis Worksheets

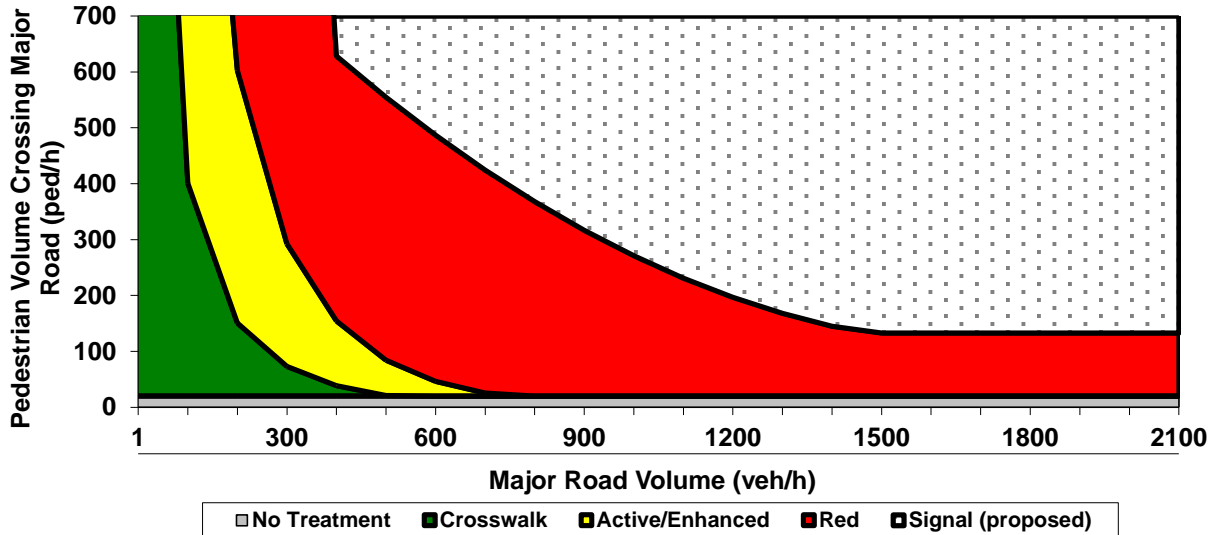
## GUIDELINES FOR PEDESTRIAN CROSSING TREATMENTS

This spreadsheet combines Worksheet 1 and Worksheet 2 (Appendix A, pages 69-70) of TCRP Report 112/NCHRP Report 562 (*Improving Pedestrian Safety at Unsignalized Intersections*) into an electronic format. This spreadsheet should be used in conjunction with, and not independent of, Appendix A documentation.

Key	
	Blue fields contain descriptive information.
	Green fields are required and must be completed.
	Tan fields are adjustments that are filled out only under certain conditions (follow instructions to the left of the cell).
	Gray fields are automatically calculated and should not be edited.

This spreadsheet is still under development, please inform TTI if errors are identified.

Analyst and Site Information		
Analyst	Meredyth Sanders	Major Street
Analysis Date	August 5, 2016	Minor Street or Location
Data Collection Date	N/A	Peak Hour
		Chinden Boulevard (Rte. 26)
		43rd Street
		30th Highest Hour for 2014
Step 1: Select worksheet:		
Posted or statutory speed limit (or 85th percentile speed) on the major street (mph)	1a	35
Is the population of the surrounding area <10,000? (enter <b>YES</b> or <b>NO</b> )	1b	No
Step 2: Does the crossing meet minimum pedestrian volumes to be considered for a traffic control device?		
Peak-hour pedestrian volume (ped/h), $V_p$	2a	20
Result: Go to step 3.		
Step 3: Does the crossing meet the pedestrian warrant for a traffic signal?		
Major road volume, total of both approaches during peak hour (veh/h), $V_{maj-s}$	3a	2649
[Calculated automatically] Preliminary (before min. threshold) peak hour pedestrian volume to meet warrant	3b	133
[Calculated automatically] Minimum required peak hour pedestrian volume to meet traffic signal warrant	3c	133
Is 15th percentile crossing speed of pedestrians less than 3.5 ft/s (1.1 m/s)? (enter <b>YES</b> or <b>NO</b> )	3d	No
If 15th percentile crossing speed of pedestrians is less than 3.5 ft/s (1.1 m/s), then reduce 3c by up to 50%.	% rate of reduction for 3c (up to 50%)	3e
	Reduced value or 3c	3f
		0%
		133
Result: The signal warrant is not met. Go to step 4.		
Step 4: Estimate pedestrian delay.		
Pedestrian crossing distance, curb to curb (ft), L	4a	80
Pedestrian walking speed (ft/s), $S_p$ (suggested speed = 3.5 ft/s)	4b	3.5
Pedestrian start-up time and end clearance time (s), $t_s$ (suggested start-up time = 3 sec)	4c	3
[Calculated automatically] Critical gap required for crossing pedestrian (s), $t_c$	4d	26
Major road volume, total both approaches OR approach being crossed if raised median island is present, during peak hour (veh/h), $V_{maj-d}$	4e	2649
Major road flow rate (veh/s), v	4f	0.74
Average pedestrian delay (s/person), $d_p$	4g	275856320
Total pedestrian delay (h), $D_p$ The value in 4h is the calculated estimated delay for all pedestrians crossing the major roadway without a crossing treatment (assumes 0% compliance). If the actual total pedestrian delay has been measured at the site, that value can be entered in 4i to replace the calculated value in 4h.	4h	1532535.1
	4i	
Step 5: Select treatment based up on total pedestrian delay and expected motorist compliance.		
Expected motorist compliance at pedestrian crossings in region: enter <b>HIGH for High Compliance</b> or <b>LOW for Low Compliance</b>	5a	Low
Treatment Category:		RED



The intersection of pedestrian volume and vehicle volume cannot be seen because the vehicle volume exceeds the limits of the graph.

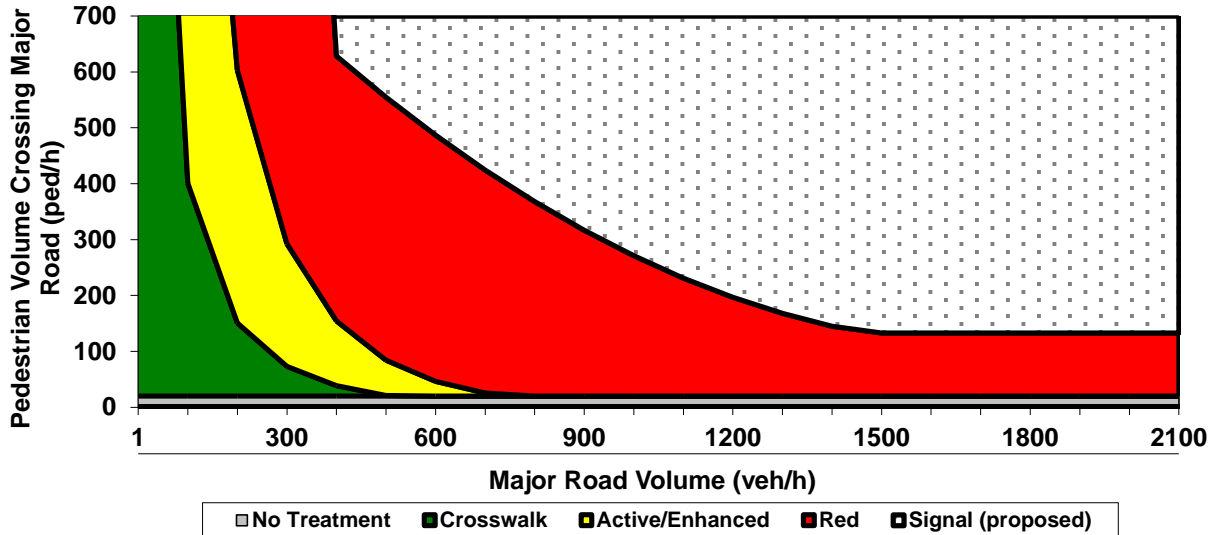
This worksheet provides general recommendations on pedestrian crossing treatments to consider at unsignalized intersections; in all cases, engineering judgment should be used in selecting a specific treatment for installation. This worksheet does not apply to school crossings. In addition to the results provided by this worksheet, users should consider whether a pedestrian treatment could present an increased safety risk to pedestrians, such as where there is poor sight distance, complex geometrics, or nearby traffic signals.

## GUIDELINES FOR PEDESTRIAN CROSSING TREATMENTS

This spreadsheet combines Worksheet 1 and Worksheet 2 (Appendix A, pages 69-70) of TCRP Report 112/NCHRP Report 562 (*Improving Pedestrian Safety at Unsignalized Intersections*) into an electronic format. This spreadsheet should be used in conjunction with, and not independent of, Appendix A documentation.

Blue fields contain descriptive information.	This spreadsheet is still under development, please inform TTI if errors are identified.
Green fields are required and must be completed.	
Tan fields are adjustments that are filled out only under certain conditions (follow instructions to the left of the cell).	
Gray fields are automatically calculated and should not be edited.	

Analyst and Site Information		
Analyst	Meredyth Sanders	Major Street
Analysis Date	August 5, 2016	Chinden Boulevard (Rte. 26)
Data Collection Date	N/A	Minor Street or Location
		43rd Street
		Peak Hour
		30th Highest Hour for 2014
Step 1: Select worksheet:		
Posted or statutory speed limit (or 85th percentile speed) on the major street (mph)	1a	35
Is the population of the surrounding area <10,000? (enter <b>YES</b> or <b>NO</b> )	1b	No
Step 2: Does the crossing meet minimum pedestrian volumes to be considered for a traffic control device?		
Peak-hour pedestrian volume (ped/h), $V_p$	2a	1
Result: Consider raised median islands, curb extensions, traffic calming, etc. as feasible.		
Step 3: Does the crossing meet the pedestrian warrant for a traffic signal?		
Major road volume, total of both approaches during peak hour (veh/h), $V_{maj,s}$	3a	2649
[Calculated automatically] Preliminary (before min. threshold) peak hour pedestrian volume to meet warrant	3b	133
[Calculated automatically] Minimum required peak hour pedestrian volume to meet traffic signal warrant	3c	133
Is 15th percentile crossing speed of pedestrians less than 3.5 ft/s (1.1 m/s)? (enter <b>YES</b> or <b>NO</b> )	3d	No
If 15th percentile crossing speed of pedestrians is less than 3.5 ft/s (1.1 m/s), then reduce 3c by up to 50%.	% rate of reduction for 3c (up to 50%)	3e
	Reduced value or 3c	3f
		0%
		133
Result:		
Step 4: Estimate pedestrian delay.		
Pedestrian crossing distance, curb to curb (ft), L	4a	80
Pedestrian walking speed (ft/s), $S_p$ (suggested speed = 3.5 ft/s)	4b	3.5
Pedestrian start-up time and end clearance time (s), $t_s$ (suggested start-up time = 3 sec)	4c	3
[Calculated automatically] Critical gap required for crossing pedestrian (s), $t_c$	4d	26
Major road volume, total both approaches OR approach being crossed if raised median island is present, during peak hour (veh/h), $V_{maj,d}$	4e	2649
Major road flow rate (veh/s), v	4f	0.74
Average pedestrian delay (s/person), $d_p$	4g	275856320
Total pedestrian delay (h), $D_p$ The value in 4h is the calculated estimated delay for all pedestrians crossing the major roadway without a crossing treatment (assumes 0% compliance). If the actual total pedestrian delay has been measured at the site, that value can be entered in 4i to replace the calculated value in 4h.	4h	76626.8
	4i	
Step 5: Select treatment based up on total pedestrian delay and expected motorist compliance.		
Expected motorist compliance at pedestrian crossings in region: enter <b>HIGH for High Compliance</b> or <b>LOW for Low Compliance</b>	5a	Low
Treatment Category:	Consider raised median islands, curb extensions, traffic calming, etc. as feasible.	



The intersection of pedestrian volume and vehicle volume cannot be seen because the vehicle volume exceeds the limits of the graph.

This worksheet provides general recommendations on pedestrian crossing treatments to consider at unsignalized intersections; in all cases, engineering judgment should be used in selecting a specific treatment for installation. This worksheet does not apply to school crossings. In addition to the results provided by this worksheet, users should consider whether a pedestrian treatment could present an increased safety risk to pedestrians, such as where there is poor sight distance, complex geometrics, or nearby traffic signals.

## E-MAIL FROM ANSER CHARTER SCHOOL

Thank you for your work on this project. It could be a huge safety improvement for our student population. Anser is public K-8 Charter School that has been located on 42<sup>nd</sup> and Adams in Garden City for seven years. Our current enrollment is 378 students. We track our student by zip code and approximately 35% of our students live in the area just above Anser on the bench ( in the Koelsch and Mountain View school boundary area) or within Garden City.

During the biking weather 60 or so students ride their bikes to school and additional 15-20 walk. Most of the walkers, and about ¾ of cyclists are coming from the Curtis/Northview area.

Of huge concern to the school is the volume of traffic at Veteran's and Chinden where all of these students are forced to cross. Because of the turning traffic and the traffic leaving and entering the gas station at that intersection it is very hard for young children, who do not have the traffic awareness of adults, to cross safely.

If students were able to cross at 43<sup>rd</sup> street it would be a huge safety improvement keeping students off Curtis/VMP and away from the turning traffic.

I have many highly motivated parents who would be more than willing to weigh in on this issue if there is an opportunity for public comment.

Please let me know if I can provide any additional information.

Sincerely,  
Heather Dennis  
*Anser Charter School, Organization Director*



## CITY OF GARDEN CITY

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6015 Glenwood Street ■ Garden City, Idaho 83714  
Phone 208/472-2900 ■ Fax 208/472-2996

September 27, 2016

Tom Laws, Associate Planner  
Community Planning Association  
700 NE 2<sup>nd</sup> Street #200  
Meridian, Idaho 83642  
Sent via email to [tlaws@compassidaho.org](mailto:tlaws@compassidaho.org) and mail

Re: Chinden Boulevard Corridor Project Development Document Letter of Endorsement

Dear Mr. Laws,

On September 26, 2016 the Garden City Council reviewed the Chinden Boulevard Corridor Project Development Document that was generated through COMPASS as a part of their Project Development program. The City commends COMPASS on this program, and thanks COMPASS, the staff, consultants and agency participants who worked on the project. The Garden City Council endorses the document, with the following comments:

- The plan has not been released to the general public for review and comment, nor has the Public Works Department or Parks and Waterways Committee reviewed this plan prior to the City Council approving this letter of endorsement. The City would presume that any future design of the projects would be reviewed by appropriate stakeholders.
- No portion of the projects is in the Urban Renewal District. The district may or may not have latitude to participate in the funding depending on the nature and location of any request.
- The Expo Idaho property is not currently a part of the City of Garden City. Garden City would be willing to work with the stakeholders for improvements, but may be limited by its lack of jurisdiction.
- The associated FHWA Chinden assessment noted that where there is current attached sidewalk adjacent to detached asphalt pathway, that many of the users utilized the detached asphalt rather than the sidewalk, presumably due to the proximity of the sidewalk to the travel ways being uncomfortable for users. The assessment noted that extruded curbing and a pathway could be buffered by landscaping or temporary landscaping (such as potted trees). The City Council recommends the same of these potential projects.
- Garden City is very much in support of a crossing of Chinden at 43<sup>rd</sup> Street. The document notes that the crossing and adjacent signals would be coordinated. All the same, there is concern that the crossing will be engineered to ensure that it will not back traffic into the

adjacent intersection and also ensure that there is adequate time for users to successfully cross Chinden (particularly since the crossing is anticipated to have an elevated number of children users).

- While the intent of adding some immediate and inexpensive interim walk and bike facilities to Chinden is desired from a safety standpoint, the proposed improvements are not consistent with Garden City Code requirements (which requires detached sidewalk allowing for space for landscaping and street trees) or the Garden City Comprehensive Plan's vision of Chinden as a comfortable road that is tree lined boulevard with wide detached sidewalks. Additionally, there are a number of safety concerns on Chinden, including a number of concerns identified in the associated FHWS assessment that have not been addressed by the proposed projects in this document. The improvements identified in this document would need to be considered an inexpensive, temporary fix for selected safety concerns and noted that they do not achieve compliance with Garden City Code nor do they achieve the City's long term goals for the design of Chinden. Garden City still requests ITD to consider a more comprehensive, long-term, corridor planning approach to access management, bicycles and pedestrians, safety, and the redevelopment/ economic development of Chinden. Garden City also still requests that ITD adopt a plan or policy to consistently address required improvements and access on Chinden for properties that redevelop prior to corridor improvements.

Sincerely,

  
Jenah E. Thornborrow  
Development Services Director

CC: Garden City Mayor and City Council