Technical Memorandum

Date:	February 16, 2023	Kittelson Project No: 23021.041
To:	Project Management Team	
From:	Matt Kittelson, PE and Miranda Barrus, PE	
Subject:	Final TM #8/9: Preferred Solutions and Funding Program	

Introduction

The preferred solutions and funding program for the Winston Transportation System Plan (TSP) presents changes to the City's transportation network that are preferred by the community to address previously identified needs. The preferred solutions described in this memorandum recognize that driving will continue to be important through 2045, but increased transportation choices are equally important for meeting all needs of people traveling in and through Winston. These projects can:

- Help to achieve a number of objectives related to safety;
- Provide transportation links that serve people of all ages, incomes, and abilities, and that support social, cultural, and health needs;
- Promote sustainability;
- Support continued economic growth and diversification within the city and region; and,
- Capitalize on investments that the City, County, and State have made in the existing infrastructure.

The preferred solutions are generally organized by travel mode and are summarized in tables and illustrated in maps. As part of the funding program for these preferred solutions, each project includes a planning-level cost estimate and potential funding partners. Further, project sets for each mode offer a summary of potential funding sources for the City to consider pursuing. Projects may be funded through a variety of sources including federal, state, county, or local transportation funds, system development charges (SDCs), partnerships with private partners, or a combination of these sources.

This memorandum is accompanied by Project Prospectus Sheets that provide additional details about each project (e.g., location, description, cost, benefits, constraints, etc.). These are intended to provide the City with independent documentation on each project as they pursue funding and/or commence project

development. Project design details may change before construction commences as public input, available funding, and unique site conditions are taken into consideration.

Transportation Needs

The transportation needs that were identified for Winston through previous technical analyses and public outreach are summarized below and described in more detail in Technical Memoranda #4, #5, and #6:

- All studied intersections meet volume-to-capacity (v/c) thresholds both now and in 2045 with their current configuration, except for OR 42 / Lookingglass Road, which slightly exceeds its side-street v/c threshold.
- The City may consider reclassifying the Abraham Avenue corridor from a Major Collector to a Residential Collector. No other changes to the existing City's roadway functional classification system are necessary to support anticipated needs in 2045.
- ODOT is evaluating installation of a roundabout at the OR 42 / Brockway Road intersection to address existing safety needs. This project will be incorporated into the TSP.
- OR 42 / Lookingglass Road could benefit from safety countermeasures to reduce its observed crash rate and address its excess proportion of turning movement crashes, such as installing a traffic signal or roundabout. Either traffic control change would also increase intersection capacity.
- The highest percentage of people who may be transportation disadvantaged and/or underserved reside north of Lookingglass Road.
- Many of the collector streets in the City do not have sidewalks, curb and gutter, and/or bike lanes, and in some cases, centerline or edge line striping.
- OR 42 may be a community barrier to people walking and biking, especially in areas with higher posted speeds, such as south of Abraham Avenue and north of Brosi Orchard Road.
- The Umpqua Public Transit District (UPTD) Transit Master Plan was recently updated and adopted in 2022 and has recommended increased and/or expanded service for the Greyline (Winston to Roseburg), Route 99 (Roseburg to Canyonville), and the Roseburg Express (Roseburg to Coos Bay). It also recommends trip planning tools and technologies to enhance the rider experience. Recommendations from the UPTD plan will be incorporated into the TSP.
- The OR 42 bridge over Lower Lookingglass Creek has a sufficiency rating below 50. ODOT and the City will continue monitoring the need to modify or repair this and other bridges in the City as appropriate, including the Adair Bridge on Lookingglass Road over Applegate Creek.

- There are no rail or air facilities within the Winston UGB and no deficiencies related to pipelines were identified.

With regard to these transportation needs, the solutions presented herein address all modes of travel and include programs that could reduce vehicular travel demand and increase transportation choices for all users.

Funding Sources

Implementation of projects listed within this memorandum will require that viable funding sources be identified. As documented in Technical Memorandum #6, the City currently uses all available roadway funding for ongoing maintenance of the existing transportation system. No additional City funds are regularly available for capital improvement projects. For this reason, determining funding sources that could be used to implement projects recommended by the TSP is critical to meet the community's infrastructure needs over the next 20 years.

Technical Memorandum #6 also identified various local, state, and federal funding sources that the City could pursue. From those, Table 1 below specifies the most applicable funding sources for the City to consider in pursuit of the projects presented in this memorandum. Funding sources are grouped as "Citywide Funding Sources," which include flexible funding streams that could be applied to various projects, and "Project Specific Funding Sources," which would be applied on a project-by-project basis. The City could choose to pursue one or more of the Citywide Funding Sources and develop an ongoing Capital Improvement Program (CIP) with the funds generated. In addition, the City may choose to apply for Project Specific Funding Sources to implement high priority projects. In the project tables within the following sections, we have identified Project Specific Funding Sources that are applicable to each project.

Table 1: Priority Funding Sources for Winston TSP Implementation

Funding Source	Description
Citywide Funding Sources	
Street Utility Fees	A fee based on the number of automobile trips a particular land use generates; usually collected through a regular utility bill. Fees can also be tied to the annual registration of a vehicle to pay for improvements, expansion, and maintenance of the street system.
System Development Charges	Impact fees assessed to development for the capacity demand it creates on public infrastructure systems. SDCs may be an improvement fee, a reimbursement fee, or a combination thereof.

Funding Source	Description
General Obligation Bond	Bonding allows municipal and county government to finance construction projects by borrowing money and paying it back over time, with interest. General obligation bonds are often used to pay for construction of large capital improvements and must be approved by a public vote because the cost of the improvement is added to property taxes over time.
Project Specific Funding Sources	
Transportation and Growth Management (TGM) Grants	Planning grants administered by ODOT and awarded on an annual basis that are generally awarded to projects that will lead to more livable, economically vital, transportation efficient, sustainable, and pedestrian-friendly communities. The grants are awarded in two categories: transportation system planning and integrated land use/transportation planning.
Statewide Transportation Improvement Program (STIP)	STIP is the State of Oregon's four-year transportation capital improvement program. ODOT's system for distributing these funds has varied over recent years. Generally, local agencies apply in advance for projects to be funded in each four-year cycle.
Statewide Transportation Improvement Fund (STIF)	Introduced by the House Bill 2017 Transportation Funding Package to fund public transportation improvements across Oregon, STIF funds may be used for public transportation purposes that support the effective planning, deployment, operation, and administration of public transportation programs. This can include projects that are secondary but important to public transportation, such as walking and biking infrastructure near transit stops.
All Roads Transportation Safety (ARTS)	The federal Highway Safety Improvement Program is administered as ARTS in Oregon. ARTS provides funding to infrastructure and non-infrastructure projects that improve safety on all public roads. ARTS requires a data-driven approach and prioritizes projects in demonstrated problem areas.
Safe Routes to School (SRTS)	Administered by ODOT and focuses on infrastructure and non-infrastructure programs to improve access and safety for children to walk, roll, and/or bike to school.
Community Paths Program	This is a State of Oregon program focused on helping communities create and maintain connections through shared-use paths.
Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	The RAISE Discretionary Grant program invests in projects that promise to achieve national objectives. RAISE can provide capital funding directly to any public entity, in contrast to traditional Federal programs which provide funding to very specific groups of applicants. The RAISE program provides supplemental funding for grants to the State and local entities on a competitive basis for projects that will have a significant local/regional impact.
Infrastructure Investment and Jobs Act (IIJA)	The IIJA (aka "Bipartisan Infrastructure Law," BIL) signed into law in November 2021 includes a five-year (FY 2022-26) reauthorization of existing federal highway, transit, safety, and rail programs as well as new programs (resilience, carbon reduction, bridges, electric vehicle charging infrastructure, wildlife crossings, and reconnecting communities) and increased funding. Oregon will receive over $4.5 billion through the life of the act.
Rural Surface Transportation Grant Program (Rural Surface)	This program will support projects to improve and expand the surface transportation infrastructure in rural areas to increase connectivity, improve safety and reliability for moving people and freight, and generate regional economic growth and improve quality of life.

Intersections and Streets

The recommended projects illustrated in Figure 1 focus on vehicular capacity and safety needs at intersections and emphasize changes to streets that enhance safety, serve all modes, and/or support future economic growth and community prosperity. The TSP is not inclusive of all intersection and street projects that the City might pursue over the next 20 years, but City and ODOT can pursue these identified projects to strategically improve the operational efficiency and safety of key locations. These projects can be completed as opportunities arise, and in all cases, the City will review the appropriate design treatments at the time of project development and delivery.

Intersection Projects

Two intersections located on the state highway were identified for traffic control changes to address traffic safety and operational needs:

1. **OR 42 / Lookingglass Road (project I1)**: An initial alternatives analysis for this location demonstrates that traffic control changes like a traffic signal or roundabout could better support intersection traffic volumes and traffic growth, as well as reduce crashes (see Technical Memorandum #7). Provided that this is an ODOT facility, selecting a preferred intersection treatment will require an engineering analysis consistent with applicable ODOT procedures and State Traffic Engineer approval. More considerations are summarized below
2. **OR 42 / Brockway Road (project I2)**: ODOT is currently evaluating installation of a roundabout at this location.

Intersection projects at both locations offer strong support for the TSP goals and objectives (see Technical Memorandum #2).

OR 42 / Lookingglass Road Intersection Modification

The recommendation to maintain the intersection's current location and change its traffic control differs from recommendations in the OR 42 Expressway Plan, which plans to realign Lookingglass Road east to Pepsi Road and create a four-leg intersection.

Feedback received from the project team and public during this TSP update indicates that environmental constraints and current operational conditions related to this planned realignment may be infeasible. The Cow Creek Tribe owns the property northeast of the intersection. Thus, intersection impacts must undergo Bureau of Indian Affairs (BIA) and Federal Highway Administration (FHWA) National Environmental Policy Act (NEPA) processes. If the City chooses to pursue changes to the intersection that differ from the Expressway Plan, that plan will need to be amended.

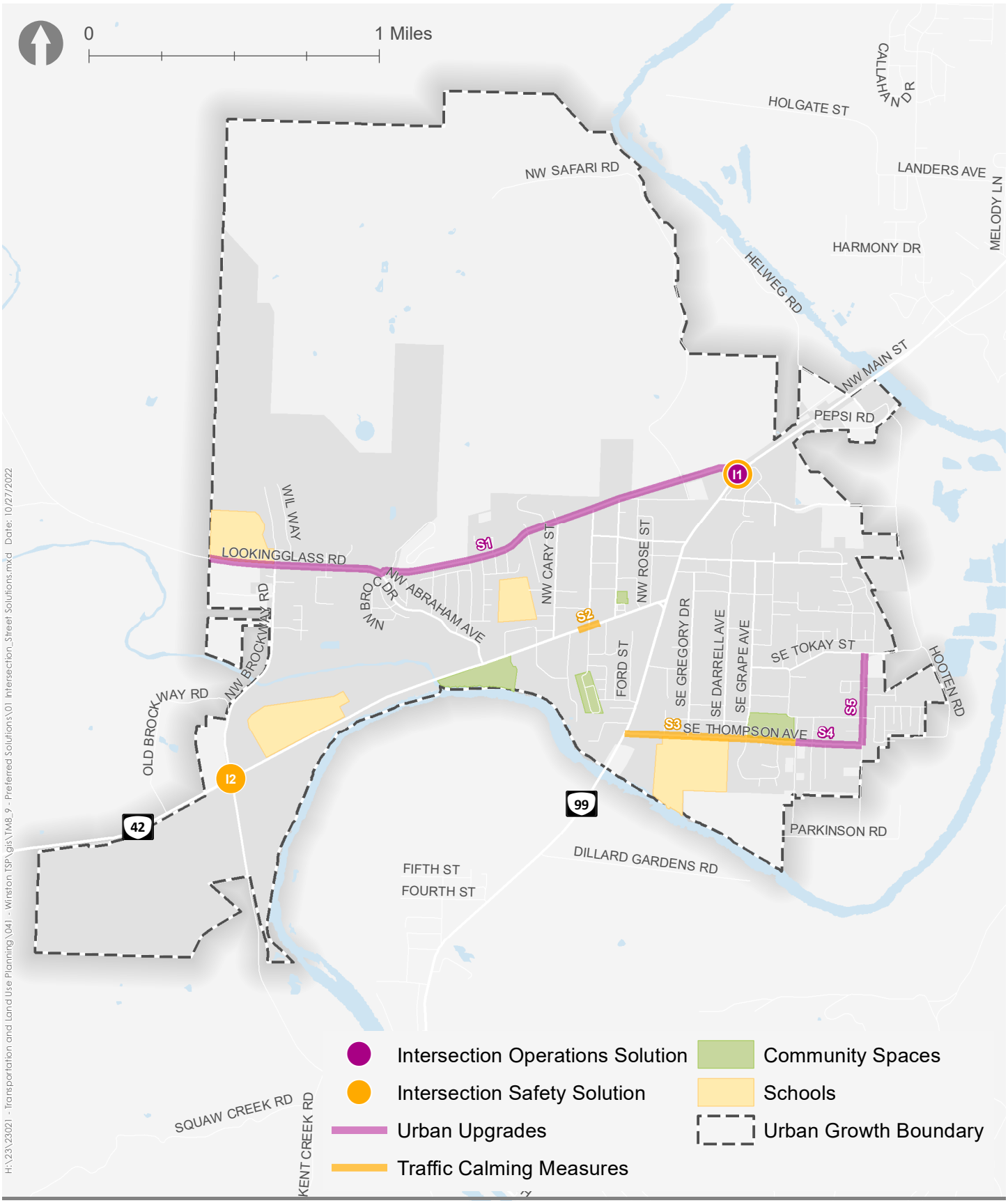

Figure 1

Recommended Intersection and Street Projects
Winston, Oregon

Once a preferred treatment is identified at OR 42 / Lookingglass Road through an ODOT-approved evaluation, the City can coordinate with ODOT on expected costs for project development and construction and partner on funding the project. Other potential funding partners might include the federal government, Douglas County, and private partners. The City could also partner with ODOT to pursue various grants for the project, including ARTS, STIP, RAISE, or IIJA.

Street Projects

The recommended street projects from Figure 1 are summarized in Table 2 and identify a corridor study for Lookingglass Road, urban upgrades for Thompson Avenue and Winston Road, and traffic calming measures for Thompson Avenue and OR 42, near NW Civil Bend Avenue. These corridors, both individually and taken together, provide important connections for people to access the civic uses and schools in the city.

Table 2 also includes recommended project priorities, planning-level cost estimates, potential funding partners, and potential funding sources. Additional details on each of these projects are provided in the Project Prospectus Sheets at the end of this memorandum. *Attachment A includes the detailed street project cost estimates.*

The following provides a brief background on these key street projects:

- **Lookingglass Road:** A corridor study is recommended for Lookingglass Road, in lieu of a full roadway upgrade to its Major Collector standard, due to existing physical constraints, available space within the existing street cross section, and right-of-way needs. Outcomes of this study are expected to inform where a multi-use path may be implemented in lieu of sidewalks and bike lanes due to these constraints.
- **Thompson Avenue:** An evaluation and implementation of traffic calming measures, including modifications to the existing roadway cross-section, are recommended for Thompson Avenue from Main Street to Edgewood Drive. Such measures can enhance the comfort and convenience of people walking, riding bikes, and rolling along this street to access key activity centers in the corridor, including Winston Middle School. Major Collector standard street upgrades are recommended for the remainder of Thompson Avenue to the east, as well as Winston Road to the north, to provide continuous multimodal infrastructure.
- **Safe Routes to School Projects:** Implementation of speed feedback signs is recommended on OR 42 near NW Civil Bend Avenue to encourage slower vehicular speeds through the corridor.

Table 2: Recommended Street Projects

ID	Street	Limits/ Location	Description	Priority	Cost	Potential Funding Partners	Potential Funding Sources
S1	Lookingglass Rd	West UGB to OR 42	Conduct a corridor study to identify feasible solutions that address the needs of people walking, biking, and taking transit in the corridor	High	$100K	• Douglas County • ODOT • Private Partners • Schools	• STIP • RAISE • Community Paths • Rural Surface • SRTS
S2	OR 42	NW Civil Bend Ave	Install feedback signs on north side of highway near intersection	Medium	$10k	• ODOT	• STIP • Rural Surface • SRTS • ARTS
S3	Thompson Ave	Main St (OR 99) to Edgewood Dr	Implement traffic calming measures (e.g., adding crossings, enhancing existing crossings, intersection bulb-outs, lighting, travel width reduction strategies) and urban upgrades to Major Collector standards	High	$1.0M-$1.5M	• ODOT (SRTS Program) • Private Partners • Schools	• STIP • RAISE • Rural Surface • SRTS
S4	Thompson Ave	Edgewood Dr to Winston Rd	Upgrade to Major Collector standard cross section	High	$2.4M	• Douglas County • Private Partners	• STIP • RAISE • Rural Surface • SRTS
S5	Winston Rd	Thompson Avenue to Tokay Street	Upgrade to Major Collector standard cross section	High	$2.4M	• ODOT • Private Partners • Douglas County?	• STIP • RAISE • Rural Surface • SRTS

Functional Classification Changes

Figure 2 shows the proposed functional classification of streets within the city. The City's functional classification system balances mobility and access to, through, and between different types of land uses for the street network with the following hierarchy:

- **Arterials**: these streets are the two state highways in the city and are intended to provide access to major centers, carry the highest traffic volumes, and connect the city to other areas in the county and region.
- **Major Collectors**: these streets serve as the "backbone" of the city street system and connect people between neighborhoods, commercial areas, and employment sites, and also provide connections to the two highways.
- **Residential Collectors**: these streets have a dual function of balancing livable streets with higher levels of traffic, indicating primary bike routes within neighborhoods and carrying higher traffic volumes than on other residential streets.
- **Residential Streets**: these are the primary local streets within neighborhoods.
- **Local Access Ways**: these typically serve a limited number of homes and are often narrower in width than other City streets.

A roadway's functional classification considers many factors such as average daily traffic (ADT) volumes, street connectivity, spacing of streets, the mix and amounts of different travel modes on a typical segment (e.g., bikes and cars), etc.

Based on direction from the City, Abraham Avenue could be reclassified from a Major Collector to a Residential Collector due to the current and expected future traffic volumes along the corridor. Reclassifying Tokay Street, east of SE Rose Ridge Drive, from a Major Collector to a Residential Collector is also recommended so the functional classification of the street is consistent. The primary differences between the street cross sections of the Residential Collector and Major Collector are slightly narrower right-of-way requirements and travel lane widths. All other cross section features are similar. Reclassifying these streets does not conflict with the pedestrian and bicycle projects proposed later in this memo. Table 3 compares the federal and location classifications of these two streets for the current and recommended designations.

Over time, as the community continues to grow and establish, functional classifications are periodically revisited to ensure that particular street classifications are still appropriate. Additionally, many of the City's existing streets are not built to current standards and not all will be rebuilt over the next 20 years to match these standards. Future land use approvals may require changes to existing streets (beyond those identified in the TSP) consistent with functional classification requirements.

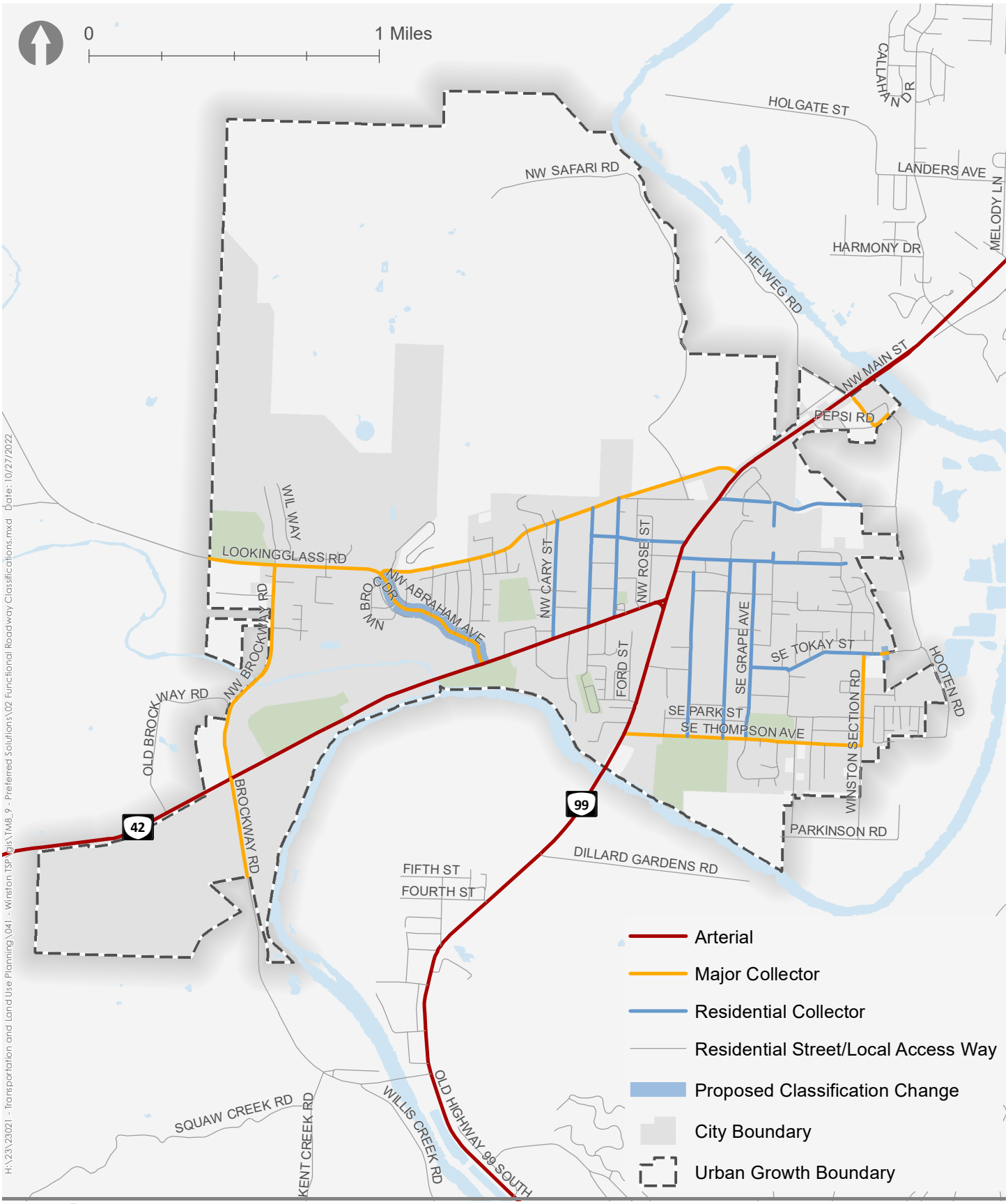

Figure 2

Recommended Functional Classification Changes
Winston, Oregon

Table 3: Recommended Functional Classification Changes

Street	Location	Federal Classification	Winston Classification	Recommended Class Change
Abraham Ave	Entire extents	Urban Major Collector	Major Collector	Residential Collector
Tokay St	Eastern UGB	Urban Major Collector	Major Collector	Residential Collector

City Traffic Impact Analysis Requirements

The City does not currently have adopted standards for when transportation review is required to support a development application or adopted standards that define the scope and scale of such a study. Currently, the City works with applicants and partner agencies on a case-by-case basis to determine appropriate analysis requirements.

As part of TSP implementation, the City should consider adopting formal transportation review requirements to ensure a clear and objective process for analyzing the transportation system. These requirements should:

- Identify clear thresholds for when analysis is or is not required
- When analysis is required, identify an expected scope of that analysis including a review and assessment of the multimodal transportation system.
- Identify City review practices, including expected operating standards for the transportation system.

Recommendations for these standards will be developed as part of the TSP Update.

Priority Pedestrian Corridors and Crossings

The City relies on two primary types of pedestrian facilities to best serve different walking trips for people of all ages and abilities:

- Paved sidewalks adjacent to roadways: these are important for basic mobility of all people walking and rolling and particularly those with disabilities. Setback sidewalks (featuring a planted barrier between the sidewalk and travel way) can create more comfort and safety for people walking.
- Shared-use pathways are separate from the street and are designed for walking, rolling, and bicycling. Where space allows, corridors with more pedestrian and bicycle traffic may be developed with redundant paths to separate people walking from people biking. The paths for people walking or running may be unpaved depending on intended use. Where space is more constrained, a wider paved path with striping and detectable surfaces can serve people walking and biking and delineate uses.

Pedestrians must feel safe and comfortable and have convenient access to their desired destinations. Therefore, the priority pedestrian system improvements recommended for the TSP are identified in Figure 3 and summarized in Table 4. Table 5 also outlines the recommended crossing projects that can support a more comprehensive pedestrian network. Both project tables include recommended project priorities, planning-level cost estimates, potential funding partners, and potential funding sources. Additional details on each of these projects are provided in the Project Prospectus Sheets at the end of this memorandum. *Attachment B includes the detailed pedestrian corridor project cost estimates.*

These priority pedestrian projects can address the following needs:

- Gaps in the sidewalk network between neighborhoods, schools, parks, recreational areas, activity centers, transit stops, and to regional attractions;
- Crossings and safety enhancements for arterial and collector streets;
- Sidewalk or a shared-use pathway along all arterial and major collector streets and key residential collector streets in the City; and
- Education about walking safety and access to key routes.

City leadership and residents should work together to interpret and enforce City code to create an unobstructed and safe route for pedestrians to walk along the sidewalk within the right-of-way.

Coordination with ODOT will be necessary for any proposed improvements along the state highway. Further investigation will be required to determine the appropriate location of any enhanced crossings and their specific treatments.

Crossing enhancement features for crossings on the state highway should be determined through crossing studies that consider roadway context (e.g., vehicular traffic volumes, roadway speeds, number of vehicular travel lanes to cross, etc.).

Additional changes to the system of sidewalks and pathways within Winston, as well as pedestrian crossing locations, will occur over time as funding opportunities are available and/or as part of adjacent land development.

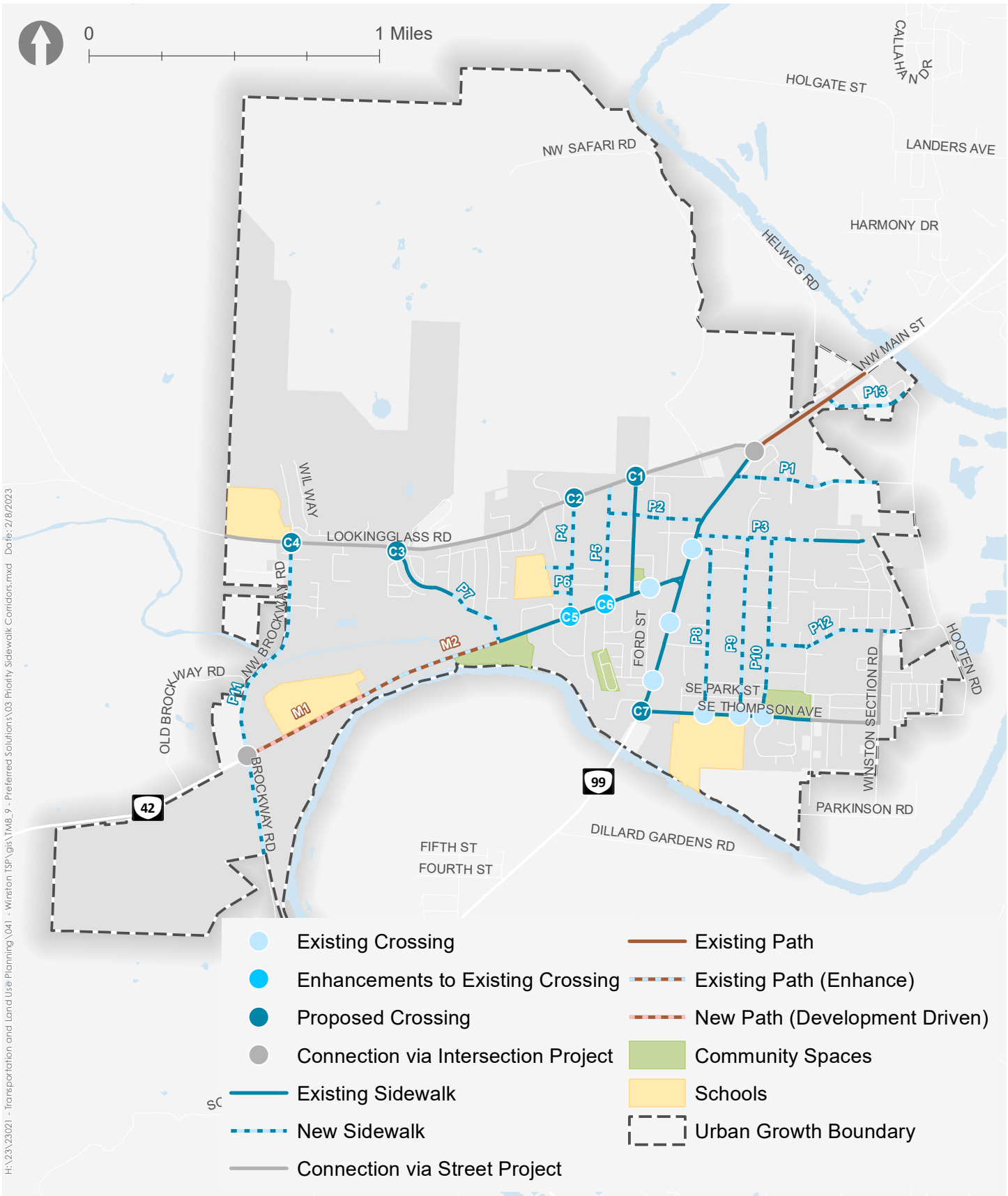

Figure 3

Recommended Sidewalk, Path, and Crossing Projects
Winston, Oregon

Table 4: Recommended Sidewalk and Path Projects

ID	Street	Limits	Description	Priority	Cost	Potential Funding Partners	Potential Funding Sources
M1	OR 42	Brockway Rd to Douglas High School	Install new path wider than 6 feet (to achieve BLTS 2) that ties into existing path. Consider buffering (to achieve PLTS 2) and elevating.	High	$900K	• ODOT • Douglas County • Schools	• STIP • RAISE • Community Paths • ARTS • SRTS • Rural Surface
M2		Douglas High School to Abraham Ave	Enhance existing path. Consider buffering and elevating to improve LTS.	High	$1.0M		
P1	Brosi Orchard Rd	OR 42 to east UGB	Install 6-foot sidewalks	Medium	$2.3M	• ODOT • Douglas County • Private Partners	• ARTS • Rural Surface
P2	Sherry St	Civil Bend Ave to OR 42	Install 6-foot sidewalks	High	$1.1M	• ODOT • Private Partners	• ARTS • Rural Surface
P3	Jorgen St	OR 42 to sidewalk tie-in	Install 6-foot sidewalks	High	$2.2M	• ODOT • Private Partners	• ARTS • Rural Surface
P4	Cary St	OR 42 to Lookingglass Rd	Install 6-foot sidewalks	High	$1.8M	• ODOT • Private Partners • Schools	• ARTS • SRTS • Rural Surface
P5	Civil Bend Ave	OR 42 to Lookingglass Rd	Install 6-foot sidewalks	High	$1.9M	• ODOT • Private Partners	• ARTS • Rural Surface
P6	Tumlin Ave & Elwood St	McGovern Elementary School to Cary St	Install 6-foot sidewalks	High	$1.1M	• ODOT • Private Partners • Schools	• ARTS • SRTS • Rural Surface
P7	Abraham Ave	Sidewalk tie-in to OR 42	Install 6-foot sidewalks	High	$600k	• ODOT • Private Partners	• ARTS • Rural Surface
P8	Gregory Dr	Thompson Ave to Baker St	Install 6-foot sidewalks	High	$3.0M	• ODOT • Private Partners	• ARTS • SRTS • Rural Surface

ID	Street	Limits	Description	Priority	Cost	Potential Funding Partners	Potential Funding Sources
P9	Darrell Ave	Thompson Ave to Jorgen St	Install 6-foot sidewalks	High	$2.9M	• ODOT • Private Partners	• ARTS • SRTS • Rural Surface
P10	Grape St	Thompson Ave to Jorgen St	Install 6-foot sidewalks	High	$2.8M	• ODOT • Private Partners	• ARTS • SRTS • Rural Surface
P11	Brockway Rd	Lookingglass Rd to south UGB	Install 6-foot sidewalks	High	$4.6M	• ODOT • Douglas County • Private Partners • Schools	• ARTS • SRTS • Rural Surface
P12	Tokay St	Grape St to UGB	Install 6-foot sidewalks	High	$1.5M	• ODOT • Private Partners	• ARTS • SRTS • Rural Surface
P13	Pepsi Rd	OR 42 to UGB	Install 6-foot sidewalks	High	$1.4M	• ODOT • Douglas County • Private Partners	• ARTS • Rural Surface

Table 5: Recommended Crossing Projects

ID	Location	Description	Priority	Cost	Potential Funding Partners	Potential Funding Sources
C1	Glenhart Ave / Lookingglass Rd	Enhance crossing with features appropriate for the roadway context	High	$100k	• ODOT • Douglas County • Private Partners	• STIP • ARTS • Rural Surface • SRTS
C2	Cary St / Lookingglass Rd	Enhance crossing with features appropriate for the roadway context	High	$100k	• ODOT • Douglas County • Private Partners • Schools	• STIP • ARTS • SRTS • Rural Surface
C3	Abraham Ave / Lookingglass Rd	Enhance crossing with features appropriate for the roadway context	High	$100k	• ODOT • Douglas County • Private Partners	• STIP • ARTS • Rural Surface • SRTS
C4	Brockway Rd / Lookingglass Rd	Enhance crossing with features appropriate for the roadway context	High	$100k	• ODOT • Douglas County • Private Partners • Schools	• STIP • ARTS • SRTS • Rural Surface
C5	OR 42 / Cary St	Enhancements to this crossing should be implemented consistent with the SRTS Plan.	High	$200k	• ODOT • Private Partners • Schools	• STIP • ARTS • SRTS • Rural Surface
C6	OR 42 / NW Civil Bend Ave	Enhancements to this crossing should be implemented consistent with the SRTS Plan.	High	$200k	• ODOT • Private Partners	• STIP • ARTS • SRTS • Rural Surface
C7	OR 99 (Main St) / Thompson Ave	Enhance crossing with features appropriate for the roadway context	High	$200k	• ODOT • Douglas County • Private Partners • Schools	• STIP • ARTS • SRTS • Rural Surface

Bicycle Network

The TSP provides a list of prioritized bike facility projects that can encourage increased travel by bicycle through enhanced safety, convenience, and direct connections. Riding bikes can help promote health, has a lower environmental impact, and allows people to move independently throughout the community without motorized vehicles, including many who cannot or choose not to drive.

The City relies on shared-use pathways and on-street bike lanes to serve people riding bikes of all ages and abilities:

- A bike lane is a marked space along a length of street that is designated for use by people bicycling. Wheelchair users and some motorized scooters are allowed in bike lanes. In the future, some bike lanes may include a buffer strip to provide space between the bike lane and the auto lane or parked cars. Further, the City may also make use of green colorant where an auto lane crosses the bike lane.
- Shared-use pathways are separate from the street and are designed for walking, rolling, and bicycling. Where space allows, corridors with more pedestrian and bicycle traffic may be developed with redundant paths to separate people walking from people biking. The paths for people walking or running may be unpaved depending on intended use. Where space is more constrained, a wider paved path with striping can serve people walking and biking and delineate uses.

In addition to these two types of bike facilities, the City might also consider incorporating bicycle boulevards along its low speed and low volume streets, which might include shared roadway treatments such as signage and pavement markers to alert drivers to the presence of bicyclists.

Table 6 and Figure 4 identify projects needed to provide comfortable and convenient bike travel along key biking routes in Winston. Table 6 includes recommended project priorities, planning-level cost estimates, potential funding partners, and potential funding sources. Additional details on each of these projects are provided in the Project Prospectus Sheets at the end of this memorandum. *Attachment C includes the detailed bike network project cost estimates.*

These bicycle projects focus on:

- Providing more bicycle routes throughout the City, including alternate routes to OR 42 and Main Street (OR 99) for less experienced riders;
- Creating a system of bicycle facilities/pathways throughout the City that can be comfortably used by children and teens as well as people who choose not to or are unable to travel by car for daily activities, including recreation;
- Connections to transit stops and a potential transit hub.

Table 6: Recommended Bike Projects

ID	Street	Limits	Description	Priority	Cost	Potential Funding Partners	Potential Funding Sources
B1	Pepsi Rd	OR 42 to Winston Section Rd	Install shared roadway treatments (e.g., signage, pavement markers)	Low	$15K	• ODOT • Douglas County • Private Partners	• STIP • ARTS • Rural Surface
B2	Abraham Ave	Lookingglass Rd to OR 42	Install 6-foot bike lanes consistent with Major/ Residential Collector standard	High	$20K	• ODOT • Private Partners	• STIP • ARTS • Rural Surface
B3	Brockway Rd	Lookingglass Rd to south UGB	Install 6-foot bike lanes consistent with Major Collector standard	Med.	$7.3M	• ODOT • Douglas County • Private Partners • Schools	• STIP • ARTS • Rural Surface
B4	Tumlin Ave & Elwood St	McGovern Elementary School to Cary St	Install shared roadway treatments (e.g., signage, pavement markers)	High	$9K	• ODOT • Private Partners • Schools	• ARTS • SRTS • Rural Surface
B5	Cary St	OR 42 to Lookingglass Rd	Install shared roadway treatments or 6-foot bike lanes, depending on available R/W	High	To Be Determined by Project Type	• ODOT • Private Partners • Schools	• ARTS • SRTS • Rural Surface

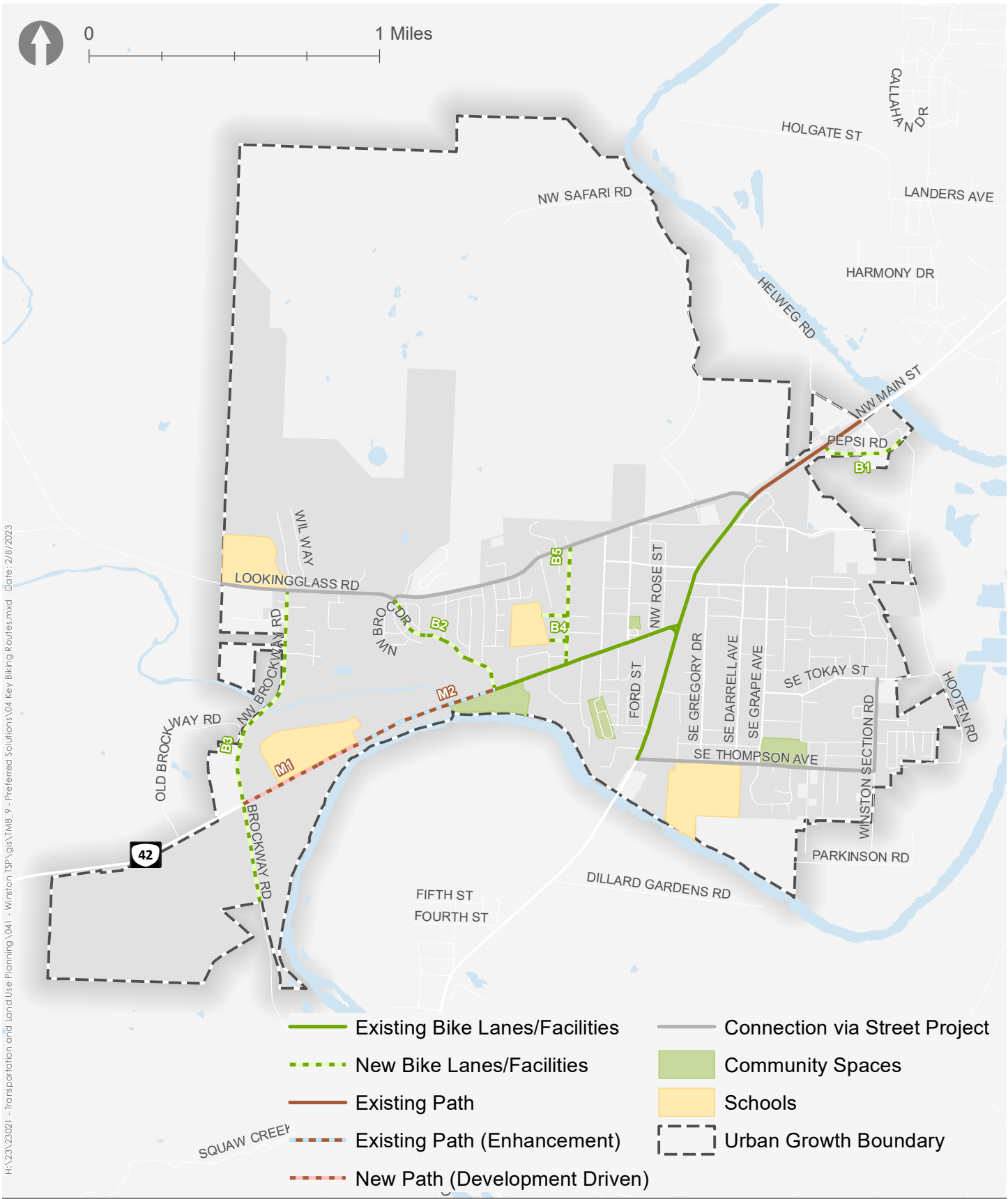

Figure 4

Recommended Bike Projects
Winston, Oregon

Bike lanes may be incorporated into additional streets over time, according to the City's street standards, as additional funding becomes available and/or as part of development activities. Like with pedestrian facilities, coordination with ODOT will be necessary for any proposed improvements for bike facilities along the state highway.

Transit Services and Facilities

The TSP promotes the provision of high-quality, available, and reliable transit service that fundamentally supports the environment, economic development, and equity for all travelers. As summarized in Technical Memorandum #4 (Existing Transportation Conditions), Winston is served by UPTD and Coos County Area Transportation District (CCAT). Both providers serve areas both inside and outside of Winston and throughout Douglas County.

CCAT provides service from Roseburg to Coos Bay on Tuesdays and Wednesdays by reservation. The bus stops at the Winston Safari Center on OR 99 (Main Street) but can stop anywhere along OR 42 and OR 99 (Main Street) between Roseburg and Coos Bay. UPTD ultimately coordinates transit service and facility needs with CCAT through master planning.

The TSP focuses on collaboration with UPTD to provide service enhancements, capital improvements, and policies that support:

- Changes to streets and intersections to facilitate bus movement;
- Amenities that also serve pedestrians and people on bikes, and intermodal connections to transit;
- Refinements to transit routes and schedules.

The City works with UPTD on the development of the Transit Master Plan which will be adopted by reference into the TSP.

The Transit Master Plan was recently updated and adopted in 2022 and includes the following transit service and facilities projects that are relevant to Winston and the TSP:

- Short-Term Projects (Fiscally Constrained)
    - Increased service hours for the Greyline (connects Winston to Roseburg with a loop in Winston) – 12 trips per day, 5 days per week
    - Extension of the Greyline along OR 99 (Main Street) to Dillard (with an emphasis on serving workforce)
    - Real-time vehicle arrival information and passenger counters
    - Rider tools and information via website and mobile apps
    - Bus stop improvements

- Mid-Term Projects (Fiscally Constrained)
    - Weekend service for the Greyline – 12 trips per day, 7 days per week
    - Weekend service for Route 99 (connects Roseburg to Canyonville with stops in Winston) – 7 trips per day, 7 days per week
    - Enhanced service for the Roseburg Express (connects Roseburg to Coos Bay with a stop in Winston) – 2 trips per day, 3 days per week
    - Continued bus stop improvements
- Long-Term Projects (Fiscally Constrained)
    - Continued bus stop improvements
- Fiscally Unconstrained Projects
    - Increased service frequency for the Roseburg Express
    - Expanded demand-response service

In addition to these Transit Master Plan projects, Table 7 and Figure 5 identify the TSP's recommended transit services and facilities. These recommendations are not reflected in UPTD's adopted Transit Master Plan but should be considered in future transit planning efforts. Table 7 includes recommended project priorities, planning-level cost estimates, potential funding partners, and potential funding sources.

Table 7: Recommended Public Transportation Projects

Location	Description	Priority	Cost	Potential Funding Partners	Potential Funding Sources
Jorgen Street / Grape Avenue / Thompson Avenue	Evaluate the need to expand Greyline route and provide vicinity bus stops and assess operating impacts to other routes	Medium	To Be Determined Through Evaluation	• ODOT • Federal Government • Umpqua Public Transportation District	• STIF
Downtown	Implement mobility hub to interline transit routes and promote mobility throughout the city (e.g., bikeshare, park-n-ride, electric vehicle charging, etc.)	Medium	Varies	• ODOT • Federal Government • Umpqua Public Transportation District	• STIF

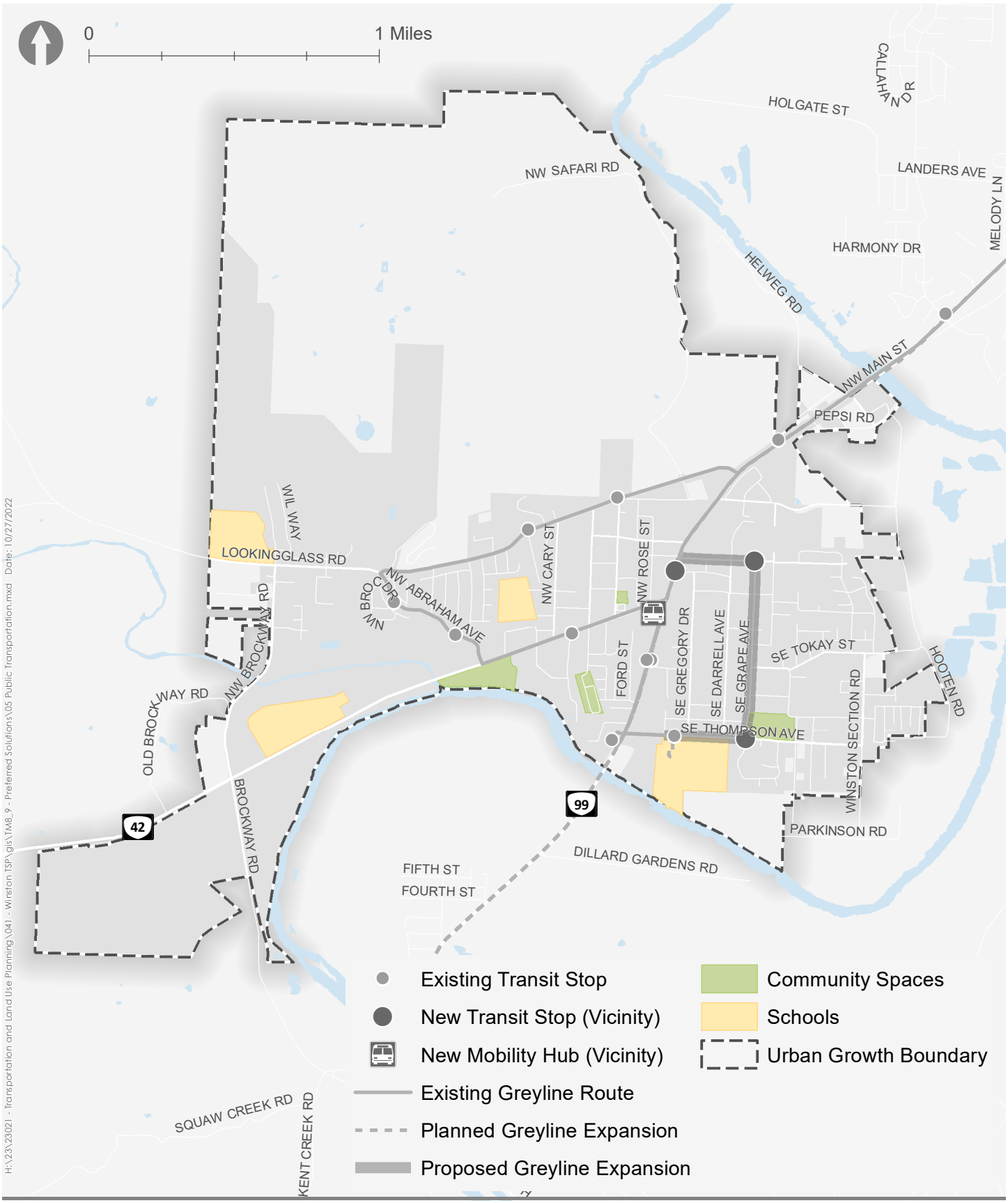

Figure 5

Recommended Public Transportation Services and Facilities
Winston, Oregon

Next Steps

The recommended transportation projects summarized in this memorandum will be incorporated into the development of the TSP. The draft TSP will then be presented to the public in early spring 2023. Public input will help refine the draft TSP in preparation for adoption.

Attachment A – Street Project Cost Estimates

Thompson Avenue Street Upgrade (S4)

Edgewood Street to Winston Road

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$123,000.00	$123,000.00
Traffic Control	LS	ALL	$63,000.00	$63,000.00
Construction Staging	LS	ALL	$63,000.00	$63,000.00
Erosion Control	AC	1.3	$10,000.00	$13,000.00
Removal of Structures and Obstructions	LS	ALL	$27,000.00	$27,000.00
Clearing and Grubbing	LS	ALL	$24,000.00	$24,000.00
General Earthworks	CY	3,200	$40.00	$128,000.00
Asphalt Roadway - Full Depth	SF	31,050	$9.20	$285,660.00
Subgrade Geotextile	SY	3,450	$1.50	$5,175.00
Concrete Curbs - Standard Curb & Gutter	LF	2,700	$36.70	$99,090.00
Concrete Walks	SF	16,200	$8.40	$136,080.00
Detectable Warnings	EA	21	$500.00	$10,500.00
Extra for Pedestrian Ramps	EA	21	$1,500.00	$31,500.00
Storm Water Conveyance System, Complete	LS	ALL	$209,000.00	$209,000.00
Regional Water Quality and Hydromodification System, Complete	SF	5,400	$28.00	$151,200.00
Pavement Markings, Complete	LS	ALL	$14,000.00	$14,000.00
Signage, Complete	LS	ALL	$11,000.00	$11,000.00
Illumination System, Complete	LS	ALL	$97,500.00	$97,500.00
TOTAL CONSTRUCTION COST				**$ 1,491,705**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$373,000.00	$373,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 373,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 1,867,439**
30% Contingency				**$ 560,240**
TOTAL ESTIMATED PROJECT COST				**$ 2,427,679**

Thompson Avenue Street Upgrade (S4)

Edgewood Street to Winston Road

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
-
-

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 60% based on risk.

Winston Road Street Upgrade (S5)

Thompson Avenue to Tokay Street

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$120,000.00	$120,000.00
Traffic Control	LS	ALL	$61,000.00	$61,000.00
Construction Staging	LS	ALL	$61,000.00	$61,000.00
Erosion Control	AC	1.3	$10,000.00	$13,000.00
Removal of Structures and Obstructions	LS	ALL	$26,000.00	$26,000.00
Clearing and Grubbing	LS	ALL	$23,000.00	$23,000.00
General Earthworks	CY	2,900	$40.00	$116,000.00
Asphalt Roadway - Full Depth	SF	23,800	$9.20	$218,960.00
Subgrade Geotextile	SY	2,645	$1.50	$3,967.50
Concrete Curbs - Standard Curb & Gutter	LF	3,400	$36.70	$124,780.00
Concrete Walks	SF	20,400	$8.40	$171,360.00
Detectable Warnings	EA	20	$500.00	$10,000.00
Extra for Pedestrian Ramps	EA	20	$1,500.00	$30,000.00
Storm Water Conveyance System, Complete	LS	ALL	$203,000.00	$203,000.00
Regional Water Quality and Hydromodification System, Complete	SF	5,300	$28.00	$148,400.00
Pavement Markings, Complete	LS	ALL	$14,000.00	$14,000.00
Signage, Complete	LS	ALL	$11,000.00	$11,000.00
Illumination System, Complete	LS	ALL	$94,600.00	$94,600.00
			TOTAL CONSTRUCTION COST	**$ 1,450,068**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$363,000.00	$363,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 363,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
			TOTAL PROJECT SUBTOTAL	**$ 1,815,802**
			30% Contingency	**$ 544,750**
			TOTAL ESTIMATED PROJECT COST	**$ 2,360,552**

Winston Road Street Upgrade (S5)

Thompson Avenue to Tokay Street

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C** *(See rating scale guide below.)*		
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
-
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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 60% based on risk.

Attachment B – Pedestrian Corridor Project Cost Estimates

OR 42 Shared-Use Path (M1)

Brockway Road to Douglas High School

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$43,000.00	$43,000.00
Traffic Control	LS	ALL	$22,000.00	$22,000.00
Construction Staging	LS	ALL	$22,000.00	$22,000.00
Erosion Control	AC	0.7	$10,000.00	$7,000.00
Removal of Structures and Obstructions	LS	ALL	$10,000.00	$10,000.00
Clearing and Grubbing	LS	ALL	$9,000.00	$9,000.00
General Earthworks	CY	800	$40.00	$32,000.00
Concrete Curbs - Standard Curb & Gutter	LF	2,300	$36.70	$84,410.00
Separated Bicycle Facility - Asphalt	SF	23,000	$3.00	$69,000.00
Detectable Warnings	EA	4	$500.00	$2,000.00
Extra for Pedestrian Ramps	EA	4	$1,500.00	$6,000.00
Storm Water Conveyance System, Complete	LS	ALL	$107,000.00	$107,000.00
Regional Water Quality and Hydromodification System, Complete	SF	2,700	$28.00	$75,600.00
Pavement Markings, Complete	LS	ALL	$4,000.00	$4,000.00
Signage, Complete	LS	ALL	$3,000.00	$3,000.00
Illumination System, Complete	LS	ALL	$27,100.00	$27,100.00
TOTAL CONSTRUCTION COST				**$ 523,110**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$131,000.00	$131,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 131,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 656,844**
30% Contingency				**$ 197,060**
TOTAL ESTIMATED PROJECT COST				**$ 853,904**

OR 42 Shared-Use Path (M1)

Brockway Road to Douglas High School

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C** *(See rating scale guide below.)*		
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
-
-

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 60% based on risk.

OR 42 Shared-Use Path (M2)

Douglas High School to Abraham Avenue

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$49,000.00	$49,000.00
Traffic Control	LS	ALL	$25,000.00	$25,000.00
Construction Staging	LS	ALL	$25,000.00	$25,000.00
Erosion Control	AC	0.8	$10,000.00	$8,000.00
Removal of Structures and Obstructions	LS	ALL	$11,000.00	$11,000.00
Clearing and Grubbing	LS	ALL	$10,000.00	$10,000.00
General Earthworks	CY	900	$40.00	$36,000.00
Concrete Curbs - Standard Curb & Gutter	LF	2,700	$36.70	$99,090.00
Separated Bicycle Facility - Asphalt	SF	27,000	$3.00	$81,000.00
Detectable Warnings	EA	1	$500.00	$500.00
Extra for Pedestrian Ramps	EA	1	$1,500.00	$1,500.00
Storm Water Conveyance System, Complete	LS	ALL	$120,000.00	$120,000.00
Regional Water Quality and Hydromodification System, Complete	SF	3,200	$28.00	$89,600.00
Pavement Markings, Complete	LS	ALL	$5,000.00	$5,000.00
Signage, Complete	LS	ALL	$4,000.00	$4,000.00
Illumination System, Complete	LS	ALL	$30,600.00	$30,600.00
TOTAL CONSTRUCTION COST				**$ 595,290**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$149,000.00	$149,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 149,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 747,024**
30% Contingency				**$ 224,110**
TOTAL ESTIMATED PROJECT COST				**$ 971,134**

OR 42 Shared-Use Path (M2)

Douglas High School to Abraham Avenue

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C** *(See rating scale guide below.)*		
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
-
-

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 60% based on risk.

Brosi Orchard Road Sidewalks (P1)

OR 42 to East UGB

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$118,000.00	$118,000.00
Traffic Control	LS	ALL	$60,000.00	$60,000.00
Construction Staging	LS	ALL	$60,000.00	$60,000.00
Erosion Control	AC	1.1	$10,000.00	$11,000.00
Removal of Structures and Obstructions	LS	ALL	$26,000.00	$26,000.00
Clearing and Grubbing	LS	ALL	$23,000.00	$23,000.00
General Earthworks	CY	2,000	$40.00	$80,000.00
Asphalt Roadway - Full Depth	SF	4,700	$9.20	$43,240.00
Subgrade Geotextile	SY	523	$1.50	$784.50
Concrete Curbs - Standard Curb & Gutter	LF	4,700	$36.70	$172,490.00
Concrete Walks	SF	28,200	$8.40	$236,880.00
Detectable Warnings	EA	22	$500.00	$11,000.00
Extra for Pedestrian Ramps	EA	22	$1,500.00	$33,000.00
Storm Water Conveyance System, Complete	LS	ALL	$318,000.00	$318,000.00
Regional Water Quality and Hydromodification System, Complete	SF	4,500	$28.00	$126,000.00
Pavement Markings, Complete	LS	ALL	$12,000.00	$12,000.00
Signage, Complete	LS	ALL	$9,000.00	$9,000.00
Illumination System, Complete	LS	ALL	$80,900.00	$80,900.00
TOTAL CONSTRUCTION COST				**$ 1,421,295**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$356,000.00	$356,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 356,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 1,780,029**
30% Contingency				**$ 534,010**
TOTAL ESTIMATED PROJECT COST				**$ 2,314,039**

Brosi Orchard Road Sidewalks (P1)

OR 42 to East UGB

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C** *(See rating scale guide below.)*		
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
-
-

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 60% based on risk.

Sherry Street Sidewalks (P2)
NW Civil Bend Avenue to OR 42
Winston TSP

KITTELSON & ASSOCIATES

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$101,000.00	$101,000.00
Traffic Control	LS	ALL	$51,000.00	$51,000.00
Construction Staging	LS	ALL	$51,000.00	$51,000.00
Erosion Control	AC	0.9	$10,000.00	$9,000.00
Removal of Structures and Obstructions	LS	ALL	$22,000.00	$22,000.00
Clearing and Grubbing	LS	ALL	$20,000.00	$20,000.00
General Earthworks	CY	2,100	$40.00	$84,000.00
Asphalt Roadway - Full Depth	SF	17,600	$9.20	$161,920.00
Subgrade Geotextile	SY	1,956	$1.50	$2,934.00
Concrete Curbs - Standard Curb & Gutter	LF	2,200	$36.70	$80,740.00
Concrete Walks	SF	13,200	$8.40	$110,880.00
Detectable Warnings	EA	28	$500.00	$14,000.00
Extra for Pedestrian Ramps	EA	28	$1,500.00	$42,000.00
Storm Water Conveyance System, Complete	LS	ALL	$274,000.00	$274,000.00
Regional Water Quality and Hydromodification System, Complete	SF	3,700	$28.00	$103,600.00
Pavement Markings, Complete	LS	ALL	$10,000.00	$10,000.00
Signage, Complete	LS	ALL	$8,000.00	$8,000.00
Illumination System, Complete	LS	ALL	$69,600.00	$69,600.00
TOTAL CONSTRUCTION COST				**$ 1,215,674**
RIGHT-OF-WAY SUBTOTAL				**$ -**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$304,000.00	$304,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 304,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 1,522,408**
30% Contingency				**$ 456,730**
TOTAL ESTIMATED PROJECT COST				**$ 1,979,138**

Sherry Street Sidewalks (P2)
NW Civil Bend Avenue to OR 42
Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C** *(See rating scale guide below.)*		
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
-
-

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 60% based on risk.

NE Jorgen Street Sidewalks (P3)

OR 42 to NE Rose Ridge Drive

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$112,000.00	$112,000.00
Traffic Control	LS	ALL	$57,000.00	$57,000.00
Construction Staging	LS	ALL	$57,000.00	$57,000.00
Erosion Control	AC	1.0	$10,000.00	$10,000.00
Removal of Structures and Obstructions	LS	ALL	$24,000.00	$24,000.00
Clearing and Grubbing	LS	ALL	$22,000.00	$22,000.00
General Earthworks	CY	1,800	$40.00	$72,000.00
Asphalt Roadway - Full Depth	SF	4,250	$9.20	$39,100.00
Subgrade Geotextile	SY	473	$1.50	$709.50
Concrete Curbs - Standard Curb & Gutter	LF	4,250	$36.70	$155,975.00
Concrete Walks	SF	25,500	$8.40	$214,200.00
Detectable Warnings	EA	34	$500.00	$17,000.00
Extra for Pedestrian Ramps	EA	34	$1,500.00	$51,000.00
Storm Water Conveyance System, Complete	LS	ALL	$303,000.00	$303,000.00
Regional Water Quality and Hydromodification System, Complete	SF	4,100	$28.00	$114,800.00
Pavement Markings, Complete	LS	ALL	$11,000.00	$11,000.00
Signage, Complete	LS	ALL	$9,000.00	$9,000.00
Illumination System, Complete	LS	ALL	$77,000.00	$77,000.00
TOTAL CONSTRUCTION COST				**$ 1,346,785**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$337,000.00	$337,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 337,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 1,686,519**
30% Contingency				**$ 505,960**
TOTAL ESTIMATED PROJECT COST				**$ 2,192,479**

NE Jorgen Street Sidewalks (P3)

OR 42 to NE Rose Ridge Drive

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C** *(See rating scale guide below.)*		
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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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 60% based on risk.

Cary Street Sidewalks (P4)
OR 42 to Lookingglass Road
Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$94,000.00	$94,000.00
Traffic Control	LS	ALL	$48,000.00	$48,000.00
Construction Staging	LS	ALL	$48,000.00	$48,000.00
Erosion Control	AC	0.9	$10,000.00	$9,000.00
Removal of Structures and Obstructions	LS	ALL	$21,000.00	$21,000.00
Clearing and Grubbing	LS	ALL	$18,000.00	$18,000.00
General Earthworks	CY	1,500	$40.00	$60,000.00
Concrete Curbs - Standard Curb & Gutter	LF	4,230	$36.70	$155,241.00
Concrete Walks	SF	25,380	$8.40	$213,192.00
Detectable Warnings	EA	16	$500.00	$8,000.00
Extra for Pedestrian Ramps	EA	16	$1,500.00	$24,000.00
Storm Water Conveyance System, Complete	LS	ALL	$254,000.00	$254,000.00
Regional Water Quality and Hydromodification System, Complete	SF	3,600	$28.00	$100,800.00
Pavement Markings, Complete	LS	ALL	$10,000.00	$10,000.00
Signage, Complete	LS	ALL	$7,000.00	$7,000.00
Illumination System, Complete	LS	ALL	$64,500.00	$64,500.00
TOTAL CONSTRUCTION COST				**$ 1,134,733**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$284,000.00	$284,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 284,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 1,421,467**
30% Contingency				**$ 426,450**
TOTAL ESTIMATED PROJECT COST				**$ 1,847,917**

Cary Street Sidewalks (P4)

OR 42 to Lookingglass Road

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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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 60% based on risk.

NW Civil Bend Avenue Sidewalks (P5)

OR 42 to Lookingglass Road

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$95,000.00	$95,000.00
Traffic Control	LS	ALL	$48,000.00	$48,000.00
Construction Staging	LS	ALL	$48,000.00	$48,000.00
Erosion Control	AC	0.9	$10,000.00	$9,000.00
Removal of Structures and Obstructions	LS	ALL	$21,000.00	$21,000.00
Clearing and Grubbing	LS	ALL	$19,000.00	$19,000.00
General Earthworks	CY	1,500	$40.00	$60,000.00
Concrete Curbs - Standard Curb & Gutter	LF	4,240	$36.70	$155,608.00
Concrete Walks	SF	25,440	$8.40	$213,696.00
Detectable Warnings	EA	18	$500.00	$9,000.00
Extra for Pedestrian Ramps	EA	18	$1,500.00	$27,000.00
Storm Water Conveyance System, Complete	LS	ALL	$256,000.00	$256,000.00
Regional Water Quality and Hydromodification System, Complete	SF	3,700	$28.00	$103,600.00
Pavement Markings, Complete	LS	ALL	$10,000.00	$10,000.00
Signage, Complete	LS	ALL	$7,000.00	$7,000.00
Illumination System, Complete	LS	ALL	$65,200.00	$65,200.00
TOTAL CONSTRUCTION COST				**$ 1,147,104**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$287,000.00	$287,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 287,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 1,436,838**
30% Contingency				**$ 431,060**
TOTAL ESTIMATED PROJECT COST				**$ 1,867,898**

NW Civil Bend Avenue Sidewalks (P5)

OR 42 to Lookingglass Road

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C** *(See rating scale guide below.)*		
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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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 60% based on risk.

Elwood Street and NW Tumlin Avenue Sidewalks (P6)

McGovern Elementary School to Cary Street

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$55,000.00	$55,000.00
Traffic Control	LS	ALL	$28,000.00	$28,000.00
Construction Staging	LS	ALL	$28,000.00	$28,000.00
Erosion Control	AC	0.5	$10,000.00	$5,000.00
Removal of Structures and Obstructions	LS	ALL	$12,000.00	$12,000.00
Clearing and Grubbing	LS	ALL	$11,000.00	$11,000.00
General Earthworks	CY	900	$40.00	$36,000.00
Concrete Curbs - Standard Curb & Gutter	LF	2,520	$36.70	$92,484.00
Concrete Walks	SF	15,120	$8.40	$127,008.00
Detectable Warnings	EA	6	$500.00	$3,000.00
Extra for Pedestrian Ramps	EA	6	$1,500.00	$9,000.00
Storm Water Conveyance System, Complete	LS	ALL	$148,000.00	$148,000.00
Regional Water Quality and Hydromodification System, Complete	SF	2,200	$28.00	$61,600.00
Pavement Markings, Complete	LS	ALL	$6,000.00	$6,000.00
Signage, Complete	LS	ALL	$5,000.00	$5,000.00
Illumination System, Complete	LS	ALL	$37,500.00	$37,500.00
TOTAL CONSTRUCTION COST				**$ 664,592**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$167,000.00	$167,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 167,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 834,326**
30% Contingency				**$ 250,300**
TOTAL ESTIMATED PROJECT COST				**$ 1,084,626**

Elwood Street and NW Tumlin Avenue Sidewalks (P6)

McGovern Elementary School to Cary Street

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C** *(See rating scale guide below.)*		
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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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 60% based on risk.

Abraham Avenue Sidewalk (P7)

OR 42 to Existing Sidewalk Terminus (Timothy Avenue)

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$27,000.00	$27,000.00
Traffic Control	LS	ALL	$14,000.00	$14,000.00
Construction Staging	LS	ALL	$14,000.00	$14,000.00
Erosion Control	AC	0.3	$10,000.00	$3,000.00
Removal of Structures and Obstructions	LS	ALL	$6,000.00	$6,000.00
Clearing and Grubbing	LS	ALL	$6,000.00	$6,000.00
General Earthworks	CY	500	$40.00	$20,000.00
Concrete Curbs - Standard Curb & Gutter	LF	1,240	$36.70	$45,508.00
Concrete Walks	SF	7,440	$8.40	$62,496.00
Detectable Warnings	EA	1	$500.00	$500.00
Extra for Pedestrian Ramps	EA	1	$1,500.00	$1,500.00
Storm Water Conveyance System, Complete	LS	ALL	$72,000.00	$72,000.00
Regional Water Quality and Hydromodification System, Complete	SF	1,100	$28.00	$30,800.00
Pavement Markings, Complete	LS	ALL	$3,000.00	$3,000.00
Signage, Complete	LS	ALL	$2,000.00	$2,000.00
Illumination System, Complete	LS	ALL	$18,300.00	$18,300.00
TOTAL CONSTRUCTION COST				**$ 326,104**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$82,000.00	$82,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 82,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 410,838**
30% Contingency				**$ 123,260**
TOTAL ESTIMATED PROJECT COST				**$ 534,098**

Abraham Avenue Sidewalk (P7)

OR 42 to Existing Sidewalk Terminus (Timothy Avenue)

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C** *(See rating scale guide below.)*		
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
-
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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 60% based on risk.

Gregory Drive Sidewalks (P8)

Thompson Avenue to OR 42 (via Baker Street)

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$153,000.00	$153,000.00
Traffic Control	LS	ALL	$77,000.00	$77,000.00
Construction Staging	LS	ALL	$77,000.00	$77,000.00
Erosion Control	AC	1.3	$10,000.00	$13,000.00
Removal of Structures and Obstructions	LS	ALL	$33,000.00	$33,000.00
Clearing and Grubbing	LS	ALL	$30,000.00	$30,000.00
General Earthworks	CY	2,200	$40.00	$88,000.00
Concrete Curbs - Standard Curb & Gutter	LF	6,540	$36.70	$240,018.00
Concrete Walks	SF	39,240	$8.40	$329,616.00
Detectable Warnings	EA	48	$500.00	$24,000.00
Extra for Pedestrian Ramps	EA	48	$1,500.00	$72,000.00
Storm Water Conveyance System, Complete	LS	ALL	$415,000.00	$415,000.00
Regional Water Quality and Hydromodification System, Complete	SF	5,600	$28.00	$156,800.00
Pavement Markings, Complete	LS	ALL	$16,000.00	$16,000.00
Signage, Complete	LS	ALL	$12,000.00	$12,000.00
Illumination System, Complete	LS	ALL	$105,600.00	$105,600.00
TOTAL CONSTRUCTION COST				**$ 1,842,034**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$461,000.00	$461,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 461,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 2,305,768**
30% Contingency				**$ 691,740**
TOTAL ESTIMATED PROJECT COST				**$ 2,997,508**

Gregory Drive Sidewalks (P8)
Thompson Avenue to OR 42 (via Baker Street)
Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
-
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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 60% based on risk.

Darrell Avenue Sidewalks (P9)

Thompson Avenue to Jorgen Street

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$146,000.00	$146,000.00
Traffic Control	LS	ALL	$74,000.00	$74,000.00
Construction Staging	LS	ALL	$74,000.00	$74,000.00
Erosion Control	AC	1.3	$10,000.00	$13,000.00
Removal of Structures and Obstructions	LS	ALL	$32,000.00	$32,000.00
Clearing and Grubbing	LS	ALL	$28,000.00	$28,000.00
General Earthworks	CY	2,200	$40.00	$88,000.00
Concrete Curbs - Standard Curb & Gutter	LF	6,440	$36.70	$236,348.00
Concrete Walks	SF	38,640	$8.40	$324,576.00
Detectable Warnings	EA	34	$500.00	$17,000.00
Extra for Pedestrian Ramps	EA	34	$1,500.00	$51,000.00
Storm Water Conveyance System, Complete	LS	ALL	$395,000.00	$395,000.00
Regional Water Quality and Hydromodification System, Complete	SF	5,500	$28.00	$154,000.00
Pavement Markings, Complete	LS	ALL	$15,000.00	$15,000.00
Signage, Complete	LS	ALL	$11,000.00	$11,000.00
Illumination System, Complete	LS	ALL	$100,400.00	$100,400.00
TOTAL CONSTRUCTION COST				**$ 1,759,324**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$440,000.00	$440,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 440,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 2,202,058**
30% Contingency				**$ 660,620**
TOTAL ESTIMATED PROJECT COST				**$ 2,862,678**

Darrell Avenue Sidewalks (P9)

Thompson Avenue to Jorgen Street

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C** *(See rating scale guide below.)*		
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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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 60% based on risk.

Grape Avenue Sidewalks (P10)

Thompson Avenue to Jorgen Street

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$145,000.00	$145,000.00
Traffic Control	LS	ALL	$73,000.00	$73,000.00
Construction Staging	LS	ALL	$73,000.00	$73,000.00
Erosion Control	AC	1.3	$10,000.00	$13,000.00
Removal of Structures and Obstructions	LS	ALL	$32,000.00	$32,000.00
Clearing and Grubbing	LS	ALL	$28,000.00	$28,000.00
General Earthworks	CY	2,200	$40.00	$88,000.00
Concrete Curbs - Standard Curb & Gutter	LF	6,430	$36.70	$235,981.00
Concrete Walks	SF	38,580	$8.40	$324,072.00
Detectable Warnings	EA	32	$500.00	$16,000.00
Extra for Pedestrian Ramps	EA	32	$1,500.00	$48,000.00
Storm Water Conveyance System, Complete	LS	ALL	$392,000.00	$392,000.00
Regional Water Quality and Hydromodification System, Complete	SF	5,500	$28.00	$154,000.00
Pavement Markings, Complete	LS	ALL	$15,000.00	$15,000.00
Signage, Complete	LS	ALL	$11,000.00	$11,000.00
Illumination System, Complete	LS	ALL	$99,700.00	$99,700.00
TOTAL CONSTRUCTION COST				**$ 1,747,753**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$437,000.00	$437,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 437,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 2,187,487**
30% Contingency				**$ 656,250**
TOTAL ESTIMATED PROJECT COST				**$ 2,843,737**

Grape Avenue Sidewalks (P10)

Thompson Avenue to Jorgen Street

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C** *(See rating scale guide below.)*		
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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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 60% based on risk.

Brockway Road Sidewalks (P11)
South UGB to Lookingglass Road
Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$236,000.00	$236,000.00
Traffic Control	LS	ALL	$119,000.00	$119,000.00
Construction Staging	LS	ALL	$119,000.00	$119,000.00
Erosion Control	AC	2.2	$10,000.00	$22,000.00
Removal of Structures and Obstructions	LS	ALL	$51,000.00	$51,000.00
Clearing and Grubbing	LS	ALL	$46,000.00	$46,000.00
General Earthworks	CY	3,800	$40.00	$152,000.00
Concrete Curbs - Standard Curb & Gutter	LF	11,200	$36.70	$411,040.00
Concrete Walks	SF	67,200	$8.40	$564,480.00
Detectable Warnings	EA	12	$500.00	$6,000.00
Extra for Pedestrian Ramps	EA	12	$1,500.00	$18,000.00
Storm Water Conveyance System, Complete	LS	ALL	$634,000.00	$634,000.00
Regional Water Quality and Hydromodification System, Complete	SF	9,600	$28.00	$268,800.00
Pavement Markings, Complete	LS	ALL	$24,000.00	$24,000.00
Signage, Complete	LS	ALL	$18,000.00	$18,000.00
Illumination System, Complete	LS	ALL	$161,300.00	$161,300.00
TOTAL CONSTRUCTION COST				**$ 2,850,620**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$713,000.00	$713,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 713,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 3,566,354**
30% Contingency				**$ 1,069,910**
TOTAL ESTIMATED PROJECT COST				**$ 4,636,264**

Brockway Road Sidewalks (P11)
South UGB to Lookingglass Road
Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C** *(See rating scale guide below.)*		
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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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 60% based on risk.

Tokay Street Sidewalks (P12)

Grape Avenue to East UGB

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$74,000.00	$74,000.00
Traffic Control	LS	ALL	$38,000.00	$38,000.00
Construction Staging	LS	ALL	$38,000.00	$38,000.00
Erosion Control	AC	0.7	$10,000.00	$7,000.00
Removal of Structures and Obstructions	LS	ALL	$16,000.00	$16,000.00
Clearing and Grubbing	LS	ALL	$15,000.00	$15,000.00
General Earthworks	CY	1,300	$40.00	$52,000.00
Asphalt Roadway - Full Depth	SF	3,300	$9.20	$30,360.00
Subgrade Geotextile	SY	367	$1.50	$550.50
Concrete Curbs - Standard Curb & Gutter	LF	3,000	$36.70	$110,100.00
Concrete Walks	SF	18,000	$8.40	$151,200.00
Detectable Warnings	EA	8	$500.00	$4,000.00
Extra for Pedestrian Ramps	EA	8	$1,500.00	$12,000.00
Storm Water Conveyance System, Complete	LS	ALL	$199,000.00	$199,000.00
Regional Water Quality and Hydromodification System, Complete	SF	2,900	$28.00	$81,200.00
Pavement Markings, Complete	LS	ALL	$8,000.00	$8,000.00
Signage, Complete	LS	ALL	$6,000.00	$6,000.00
Illumination System, Complete	LS	ALL	$50,500.00	$50,500.00
TOTAL CONSTRUCTION COST				**$ 892,911**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$224,000.00	$224,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 224,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 1,119,645**
30% Contingency				**$ 335,900**
TOTAL ESTIMATED PROJECT COST				**$ 1,455,545**

Tokay Street Sidewalks (P12)

Grape Avenue to East UGB

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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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 60% based on risk.

Pepsi Road Sidewalks (P13)

OR 42 to East UGB

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
This Estimate has a Rating of:		**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$72,000.00	$72,000.00
Traffic Control	LS	ALL	$37,000.00	$37,000.00
Construction Staging	LS	ALL	$37,000.00	$37,000.00
Erosion Control	AC	0.8	$10,000.00	$8,000.00
Removal of Structures and Obstructions	LS	ALL	$16,000.00	$16,000.00
Clearing and Grubbing	LS	ALL	$14,000.00	$14,000.00
General Earthworks	CY	1,500	$40.00	$60,000.00
Asphalt Roadway - Full Depth	SF	6,000	$9.20	$55,200.00
Subgrade Geotextile	SY	667	$1.50	$1,000.50
Concrete Curbs - Standard Curb & Gutter	LF	3,000	$36.70	$110,100.00
Concrete Walks	SF	18,000	$8.40	$151,200.00
Detectable Warnings	EA	14	$500.00	$7,000.00
Extra for Pedestrian Ramps	EA	14	$1,500.00	$21,000.00
Storm Water Conveyance System, Complete	LS	ALL	$122,000.00	$122,000.00
Regional Water Quality and Hydromodification System, Complete	SF	3,200	$28.00	$89,600.00
Pavement Markings, Complete	LS	ALL	$9,000.00	$9,000.00
Signage, Complete	LS	ALL	$7,000.00	$7,000.00
Illumination System, Complete	LS	ALL	$56,800.00	$56,800.00
TOTAL CONSTRUCTION COST				**$ 873,901**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$219,000.00	$219,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 219,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 1,095,635**
30% Contingency				**$ 328,700**
TOTAL ESTIMATED PROJECT COST				**$ 1,424,335**

Pepsi Road Sidewalks (P13)

OR 42 to East UGB

Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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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 60% based on risk.

Attachment C – Bike Network Project Cost Estimates

Brockway Road Bike Lanes (B3)
South UGB to Lookingglass Road
Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$370,000.00	$370,000.00
Traffic Control	LS	ALL	$187,000.00	$187,000.00
Construction Staging	LS	ALL	$187,000.00	$187,000.00
Erosion Control	AC	3.0	$10,000.00	$30,000.00
Removal of Structures and Obstructions	LS	ALL	$80,000.00	$80,000.00
Clearing and Grubbing	LS	ALL	$71,000.00	$71,000.00
General Earthworks	CY	9,600	$40.00	$384,000.00
Asphalt Roadway - Full Depth	SF	112,000	$9.20	$1,030,400.00
Subgrade Geotextile	SY	12,445	$1.50	$18,667.50
Concrete Curbs - Standard Curb & Gutter	LF	11,200	$36.70	$411,040.00
Storm Water Conveyance System, Complete	LS	ALL	$1,015,000.00	$1,015,000.00
Regional Water Quality and Hydromodification System, Complete	SF	12,900	$28.00	$361,200.00
Pavement Markings, Complete	LS	ALL	$37,000.00	$37,000.00
Signage, Complete	LS	ALL	$28,000.00	$28,000.00
Illumination System, Complete	LS	ALL	$258,200.00	$258,200.00
TOTAL CONSTRUCTION COST				**$ 4,468,508**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$1,118,000.00	$1,118,000.00
ENGINEERING SUPPORT SUBTOTAL				**$ 1,118,000**
ENGINEERING PERMITS				
Grading & Erosion Control Permit	LS	ALL	$2,734.00	$2,734.00
Joint Permit Application	LS	ALL	$0.00	$0.00
ENGINEERING PERMITS SUBTOTAL				**$ 2,734**
TOTAL PROJECT SUBTOTAL				**$ 5,589,242**
30% Contingency				**$ 1,676,780**
TOTAL ESTIMATED PROJECT COST				**$ 7,266,022**

Brockway Road Bike Lanes (B3)
South UGB to Lookingglass Road
Winston TSP

Engineer's Conceptual Estimate

Prepared By: MKB		*Date: February 16, 2023*		
Reviewed By:				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the separated bicycle facility the assumed storm inlet spacing is 50 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
-
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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 60% based on risk.