

Alabama Corridor Multimodal Safety Improvements

Project Overview: ES-0466

Multimodal safety improvements will be constructed along Alabama Street from Cornwall Avenue to St. Clair Street. The [Alabama Safety Improvements June 2014](#) final scope was submitted to WSDOT and approved for 2015 construction. WSDOT approved a plan to:

- implement a 4-to-3-lane "road diet" to add bike lanes between Iron Street and Dean Avenue on the west end on the Alabama Corridor
- implement a hybrid "road diet" by extending the existing lane configuration on Alabama Hill (2 lanes eastbound, 2-way center lane, 1 lane westbound) from St. Clair Street to Superior Street
- add six new enhanced pedestrian crossing improvements, including High Intensity Activated Crosswalk (HAWK) s at Moore, St. Paul, Undine, and Michigan streets
- transit enhancements and relocation/consolidation of bus stops
- access management and turning restrictions
- street widening to add and extend a left turn lane near Verona, Valencia and Woburn streets
- reduce the speed limit to 30 mph
- resurface the arterial corridor from Cornwall Avenue to St. Clair Street

The Alabama corridor crossing improvements with HAWK signals and flashing crossings, provide an opportunity to implement bike boulevards recommended in the [Bike Master Plan](#). These bike boulevards create key regional connections between destinations north and south of Alabama Street, and between neighborhoods east and west of I-5.

Additional information on the planning process and associated documents is available on the [transportation web page](#).

Alabama Safety Improvements Center Section graphic with [revised turning restrictions](#).

Project Details

- Status - Complete
- Contract Awarded - April 20, 2015
- Contract Amount - \$3,377,989.20
- Contractor - Award Construction, INC.
- Bid tabs
- Completion Date - March 24, 2016
- Final Contract Amount - \$4,657,127.92
- Vicinity Map

Affected Neighborhoods

- Alabama Hill
- Lettered Streets
- Roosevelt
- Silver Beach
- Sunnyland

Participating Departments

- Public Works

contacts

Freeman Anthony, P.E.

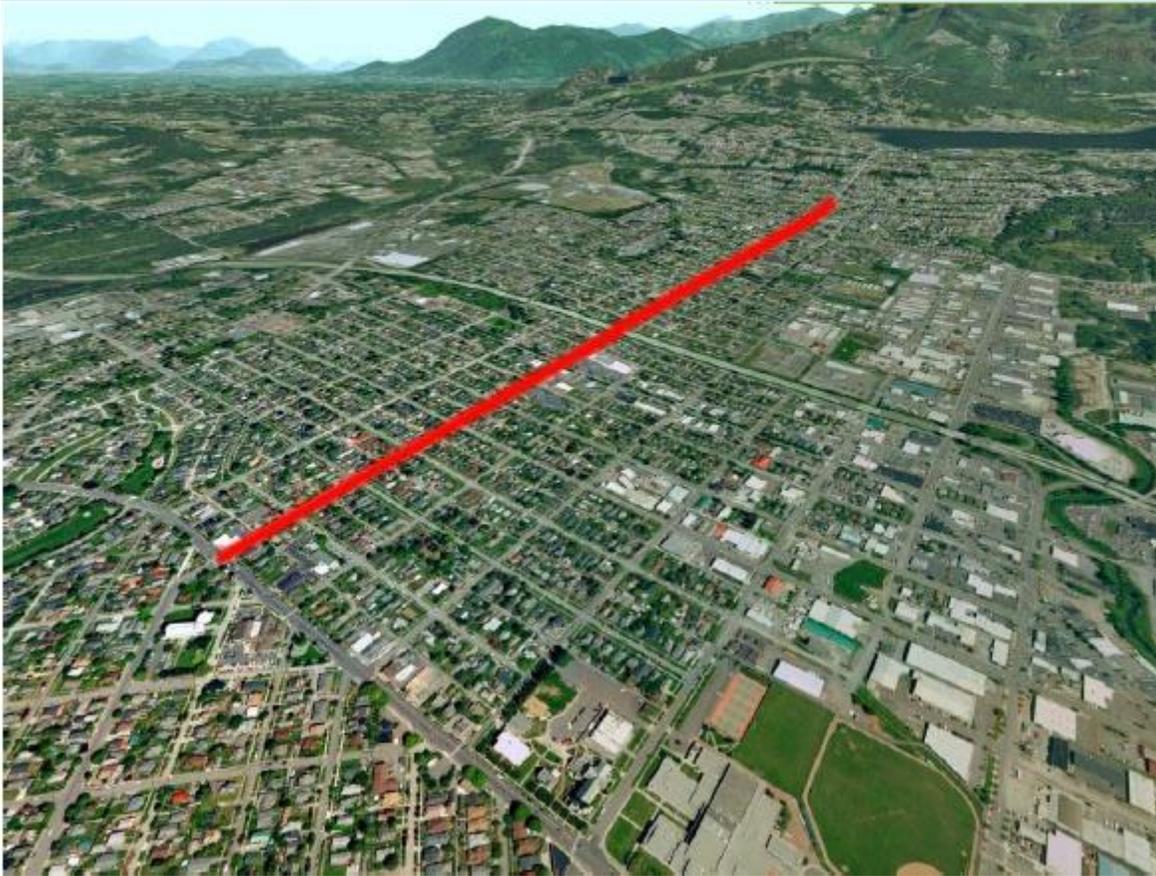
Project Engineer

Phone: (360) 778-7924

Public Works Contacts

Alabama Street Corridor

Feasibility Study & Safety Improvements



SUMMARY OF MULTI-AGENCY RECOMMENDATIONS AND CITY COUNCIL APPROVED SAFETY IMPROVEMENTS

June 2014



INTRODUCTION

The safety improvements recommended for the Alabama Street corridor are the result of a multi-year, multi-agency public planning process to weave citywide Pedestrian and Bicycle Master Plans, Bellingham Neighborhood plans, Whatcom Transportation Authority (WTA) service plans, and City emergency response plans together.

The alternatives listed below were studied and evaluated between September 2012 and March 2014.

- 1.) No Action/Existing Condition
- 2.) A Comprehensive 4-to-3-lane "Road Diet" along the entire Alabama corridor
- 3.) A Hybrid 4-to-3-lane "Road Diet" on parts of corridor, where feasible, with access management and "C-curb" median on other parts
- 4.) Additional pedestrian crossings across the Alabama corridor in strategic locations
- 5.) Accommodation of parallel and intersecting "Bike Boulevards" (Texas, E. North, St. Paul, Grant, etc.) recommended in the 2014 Bicycle Master Plan
- 6.) Strategic relocation and/or consolidation of WTA bus stops at pedestrian crossings
- 7.) Access Management, "C-Curb" Median, and Turn Lanes
- 8.) Rechannelization and resurfacing the Alabama corridor
- 9.) Reducing the existing posted 35 mph speed limit to a lower speed limit
- 10.) Possible future improvements (*not part of 2015 Implementation*)

The safety improvements for the Alabama Street corridor, described and illustrated below, were **approved by the Bellingham City Council on June 9, 2014** and are consistent with the goals of the Washington State Target Zero priorities to improve safety on transportation facilities. Illustrations of the approved safety improvements are provided below for each of the alternatives studied, but due to the 1.75-mile length of the Alabama corridor project limits, a comprehensive depiction of the approved safety improvements are provided at the end of the document in 3 distinct segments labeled "West," "Central," and "East," as well as a depiction of the "Entire Corridor," which can be viewed in greater detail by using the pdf 'zoom' feature.

Existing Condition/No Action

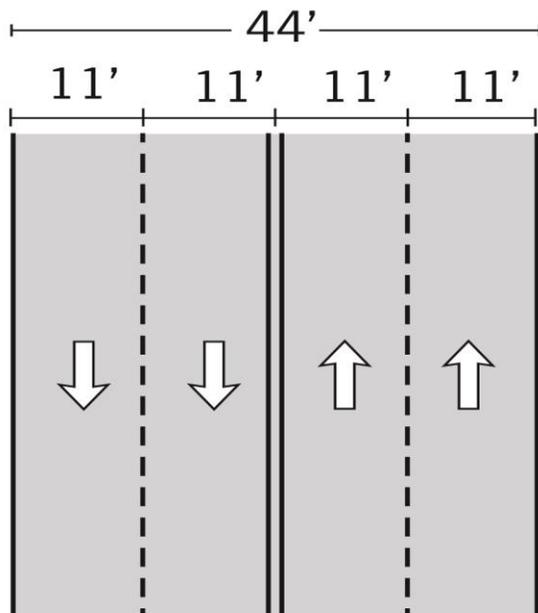
Taking no action and leaving Alabama in its existing condition will not reduce the high number of vehicle collisions documented by WSDOT, nor will it improve the pedestrian, bicycle, and transit rider safety issues identified by the public in the 2012 Pedestrian and the 2014 Bicycle Master Plans. This alternative will not achieve the stated purpose and outcome of the project, as described in the grant application and for which the grant funding was specifically awarded to the City of Bellingham. The \$1,467,824 federal grant funds are specifically for constructing safety improvements by September 30, 2015 to solve the documented safety problems on Alabama Street.

- Taking no action is not a solution and is not recommended.

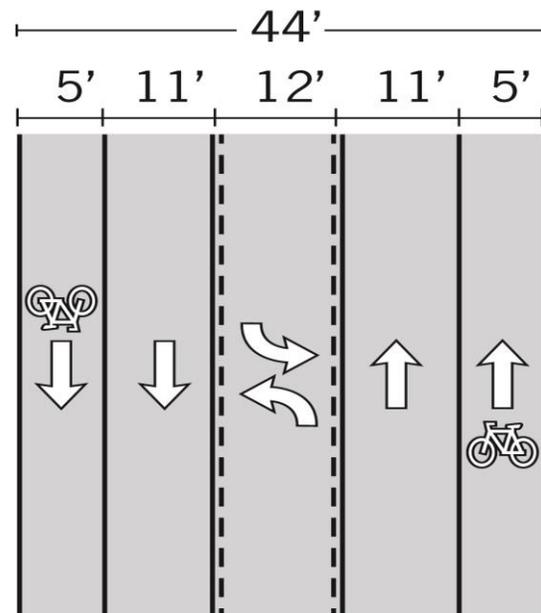
Road Diet and Rechannelization

While a complete 4-to-3-lane “road diet” is not supportable in the central portion of the Alabama corridor between James Street and Yew Street, the following road diet and rechannelization improvements are recommended on both the west and the east ends of the project limits:

- Implement a 4-to-3-lane conversion with bike lanes added between Iron Street and Dean Avenue on the west end of the Alabama corridor.** The turn and through lanes at both Cornwall Avenue and James Street will be retained in their existing configuration to accommodate long-term transit and transportation needs. The left-turn lane on the eastbound approach at Alabama/James will be lengthened by removing the existing large median and replacing it with 6-inch c-curb median. This will add vehicle storage capacity and will help to relieve eastbound traffic congestion at the busiest times of the day.



Before Conversion to Road Diet



After Conversion to Road Diet

West Section of Alabama



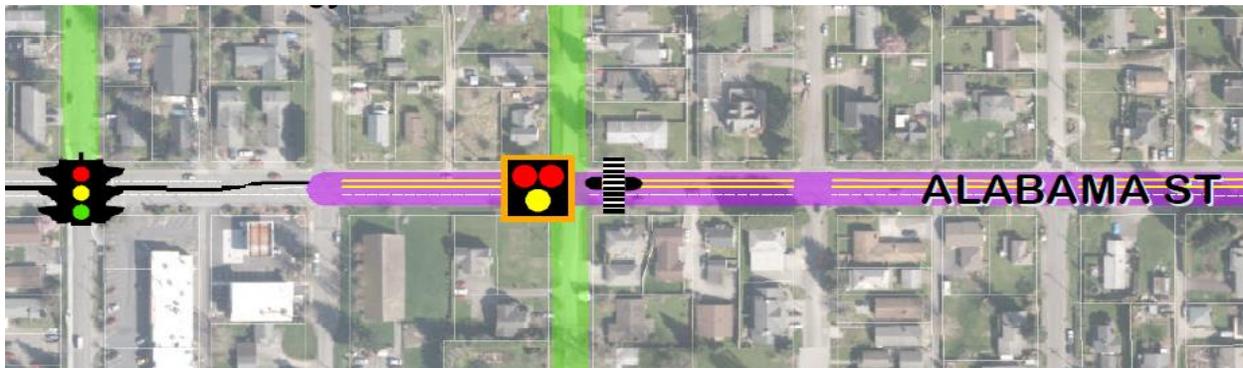
Please see comprehensive depictions at the end of this document labeled "West," "Central," "East," and "Entire Corridor," which can be viewed in greater detail by using the pdf 'zoom' feature.

- **Implement a hybrid “road diet” by extending the existing lane configuration on Alabama Hill (2 lanes eastbound, 2-way center lane, 1 lane westbound) from St. Clair Street to Superior Street.** There are heavier pm peak (evening rush hour) traffic volumes from Woburn eastbound up the Alabama Hill and having a second eastbound lane going up the hill allows vehicle traveling at posted speed to maneuver around slower moving vehicles safely. Lighter am peak (morning rush hour) traffic volumes do not require two travel lanes between St Clair Street and Superior Street, which allows the inside westbound lane to be converted to a center turn lane.

Existing 2 eastbound lanes, center turn lanes, 1 westbound lane on Alabama Hill



Re-channelization to 2 eastbound lanes, center turn lanes, 1 westbound lane (Superior to St. Clair)



These changes to lane channelization on the east and west ends of Alabama Street will not create negative impacts to vehicle traffic, WTA transit, or fire/emergency response operations, but will allow a two-way center left-turn lane to help reduce vehicle collisions on each end of the corridor, as well as allow for center lane refuges at crossing locations identified in Pedestrian Master Plan, the Bicycle Master Plan, neighborhood plans, and at WTA bus stop locations.

Please see comprehensive depictions at the end of this document labeled "West," "Central," "East," and "Entire Corridor," which can be viewed in greater detail by using the pdf 'zoom' feature.

Pedestrian, Transit, Bicycle Crossings

6 new and enhanced crossing improvements are recommended from west to east along the Alabama corridor in strategic locations, consistent with the Pedestrian Master Plan, the Bicycle Master Plan, neighborhood plans, and WTA's relocation and consolidated of bus stop locations, as listed below.

- **Ellis:** Move the existing St. Paul pedestrian-activated flashing crosswalk to Ellis and install a center lane with a new crosswalk and a concrete refuge on the east side of the intersection (supports Ellis bike blvd)
- **Grant:** Install a center lane and a concrete refuge in the existing pedestrian-activated flashing crosswalk on the west side of the intersection (supports relocated WTA bus stop and Grant Street bike boulevard in 2014 Bicycle Master Plan)
- **Moore:** Install new pedestrian-activated High Intensity Activated Crosswalk (HAWK) signal for pedestrians, transit riders, and bicyclists to cross 4-lanes of traffic with no center lane refuge (supports Moore Street bike boulevard in 2014 Bicycle Master Plan)
- **St. Paul:** Move existing pedestrian-activated flashing crosswalk to Ellis (above) and install a new pedestrian-activated High Intensity Activated Crosswalk (HAWK) signal for pedestrians, transit riders, and bicyclists to cross 4-lanes of traffic with no center lane refuge (supports relocated WTA bus stop and St. Paul Street bike boulevard in 2014 Bicycle Master Plan)
- **Undine:** Install new pedestrian-activated High Intensity Activated Crosswalk (HAWK) signal and crosswalk on east side of intersection for pedestrians, transit riders, and bicyclists to cross 4-lanes of traffic with no center lane refuge (supports Undine bike blvd)
- **Michigan:** Install new pedestrian-activated High Intensity Activated Crosswalk (HAWK) signal and crosswalk with a concrete center lane refuge on the east side of the intersection for pedestrians, transit riders, and bicyclists to cross 3-lanes of traffic (supports Michigan bike blvd)

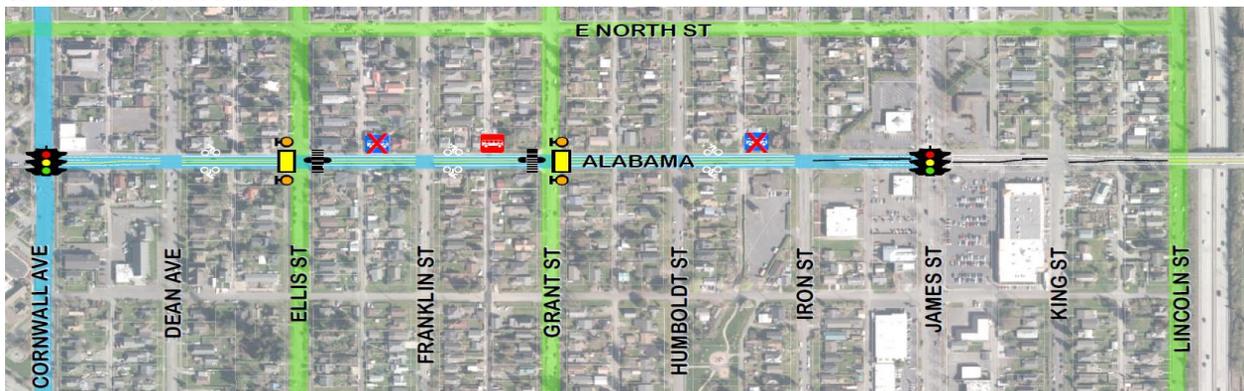
Example of a "HAWK" pedestrian crossing signal proposed in 4 locations listed above



The 6 new and enhanced crossing locations listed above are in addition to the 6 existing signaled crossings of the Alabama corridor in the following locations:

- **Cornwall:** Existing Traffic signal and marked crosswalks on all four intersection approaches
- **James:** Traffic signal and marked crosswalks on all four intersection approaches
- **Orleans:** Traffic signal and marked crosswalks on all four intersection approaches
- **Pacific:** Traffic signal and marked crosswalks on all four intersection approaches
- **Woburn:** Traffic signal and marked crosswalks on all four intersection approaches
- **Yew:** Traffic signal and marked crosswalks on all four intersection approaches

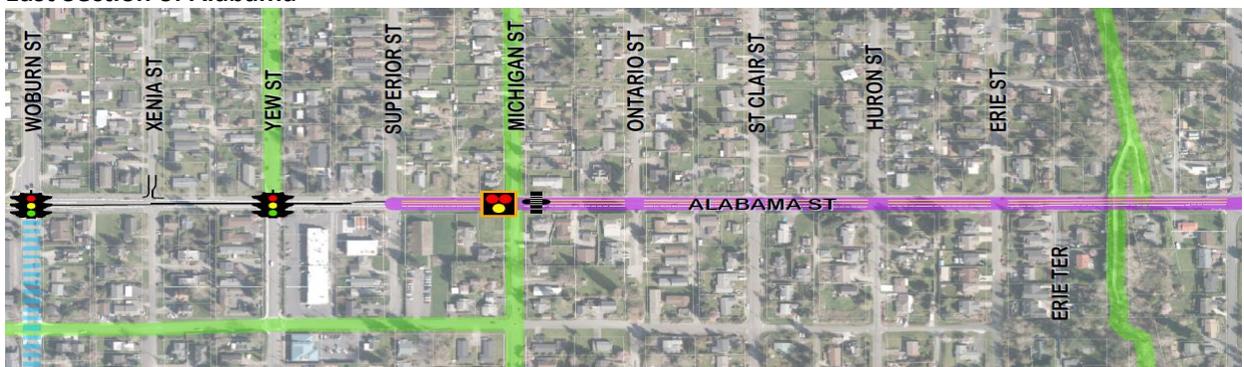
West Section of Alabama



Center Section of Alabama



East Section of Alabama



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Transit Enhancements and Relocation/Consolidation of Bus Stops

The new and enhanced crossing locations listed above will improve access to WTA bus stops and will help transit riders cross Alabama to get to WTA bus stops on time, but WTA will also consolidate 8 existing westbound bus stops that experience heavier boardings/departures into 5 bus stops, as follows:

- Consolidate the existing bus stops between Iron and Humboldt and between Ellis and Franklin into one bus stop on the west side of Grant.
- Maintain the existing bus stop on the east side of James Street.
- Consolidate the existing bus stops between Orleans and Pacific and between Moore and Nevada into one bus stop on the west side of Orleans.
- Consolidate the existing bus stops on the east side of St. Paul and mid-block between Racine and Queen into one bus stop on the west side of St. Paul.
- Maintain the existing bus stop between Verona and Valencia Streets.

Alabama: Proposed Stop Locations



Please see comprehensive depictions at the end of this document labeled "West," "Central," "East," and "Entire Corridor," which can be viewed in greater detail by using the pdf 'zoom' feature.

Over time, WTA may also enhance existing transit stops at all of the crossing locations above by converting signed bus stops into more comfortable and convenient covered bus shelters with the Gold GO Line branding scheme. This would make waiting for WTA busses more pleasant for riders, especially in inclement weather, and would also help to clear up the pedestrian environment by providing a separate space for transit riders to wait out of the main through-way portion of the sidewalks.

Access Management and Turning Restrictions

On the center section of the Alabama corridor between James Street and Yew Street where installation of a center turn lane to reduce vehicle collisions has been determined not to be feasible by the alternatives analysis, the installation of raised c-curb median in select locations, listed below, is recommended to prevent vehicles from turning across two lanes of on-coming traffic and risking side-impact and rear-end vehicle collisions, because the cars will no longer be stopped in the travel lane waiting to turn left. This recommendation for c-curb median has been reached in consultation with the Bellingham Police and Fire Departments to ensure that adequate gaps in median installations will be provided to avoid negative impacts for police, fire engine, and ambulance access into neighborhoods.

- Extend the existing c-curb median (shown below) from King Street to the I-5 bridge because homes on King Street are accessible from East North Street via the James Street traffic signal.
- Install c-curb median from I-5 to Pacific Street. Homes on Moore and Nevada Streets are connected to Texas Street and East North Street parallel to Alabama and can therefore be accessed from the existing traffic signals and left-turn lanes at Orleans and Pacific.
- Raised c-curb median between Pacific and Undine cannot be installed because there is currently no identified method that is acceptable to the community to mitigate the access restrictions to residents living on the dead-end streets of Queen, Racine, St. Paul, Toledo, and Undine. The installation of HAWK signals at Moore, St. Paul, and Undine will help to reduce collisions and the reduction of speed limit from 35 mph to 30 mph will lessen the severity of vehicle collisions.
- Install c-curb median from Woburn to Superior Street. Homes on Xenia, Yew, and Superior Streets are currently connected to Texas Street and East Connecticut Street parallel to Alabama and can be accessed from the existing traffic signals and left-turn lanes at Woburn and Yew.

Existing raised c-curb median between James and King on Alabama Street



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Street Widening to Add and Extend a Left-Turn Lane

There are some locations where new and extended left-turn lanes are recommended instead of installing c-curb median or HAWK signals, including Verona, Valencia, and Woburn.

Verona, Valencia, and Woburn: The section of Alabama between Woburn and Undine is recommended to be widened from a 4-lane to a 5-lane section to install a continuous center left-turn lane, which will double as an extended left-turn lane for the high volume of pm peak hour left-turns from eastbound Alabama to northbound Woburn. In addition to reducing vehicle collisions at Verona and Valencia, this extended left-turn lane will reduce peak hour eastbound traffic congestion and reduce travel delay for eastbound WTA transit busses on Route 331, which turns from Alabama north onto Woburn.

Widen Alabama to 5-lanes from Woburn to Undine to extend the left-turn lane



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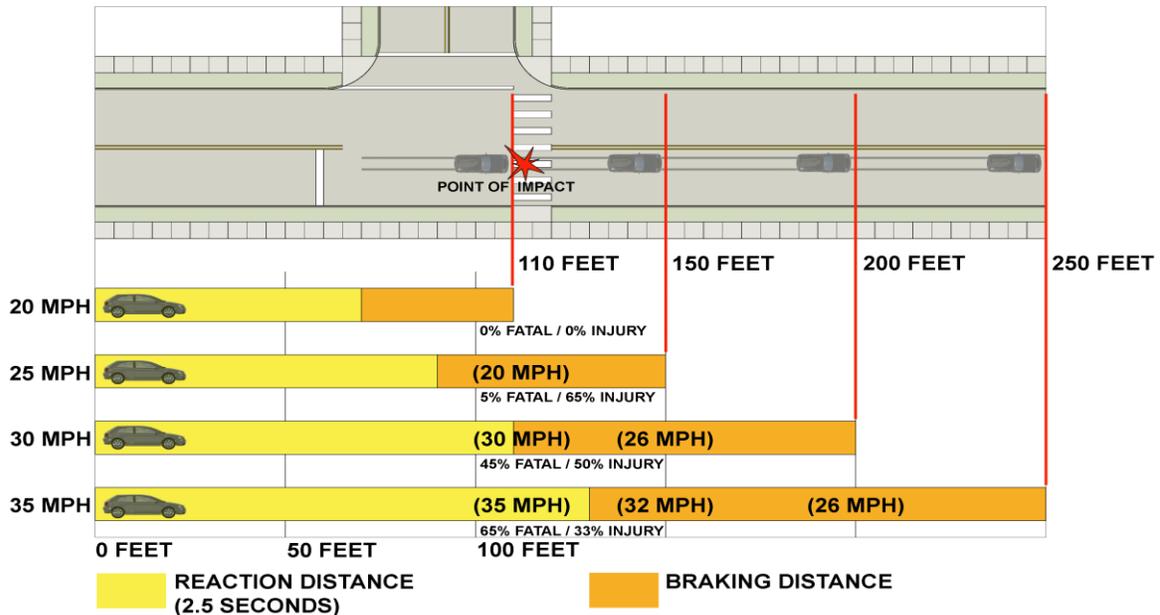
Speed Limit Reduction

While speed is not the primary issue or cause of vehicle collisions on the Alabama corridor, speed is always a contributing factor to injuries sustained in collisions. The alternatives analysis showed that lowering the posted speed limit from 35 mph to 30 mph would not substantially increase travel time for either WTA busses or private vehicles, but that lowering the speed limit to 25 mph would result in significant delay for both WTA busses and private vehicles.

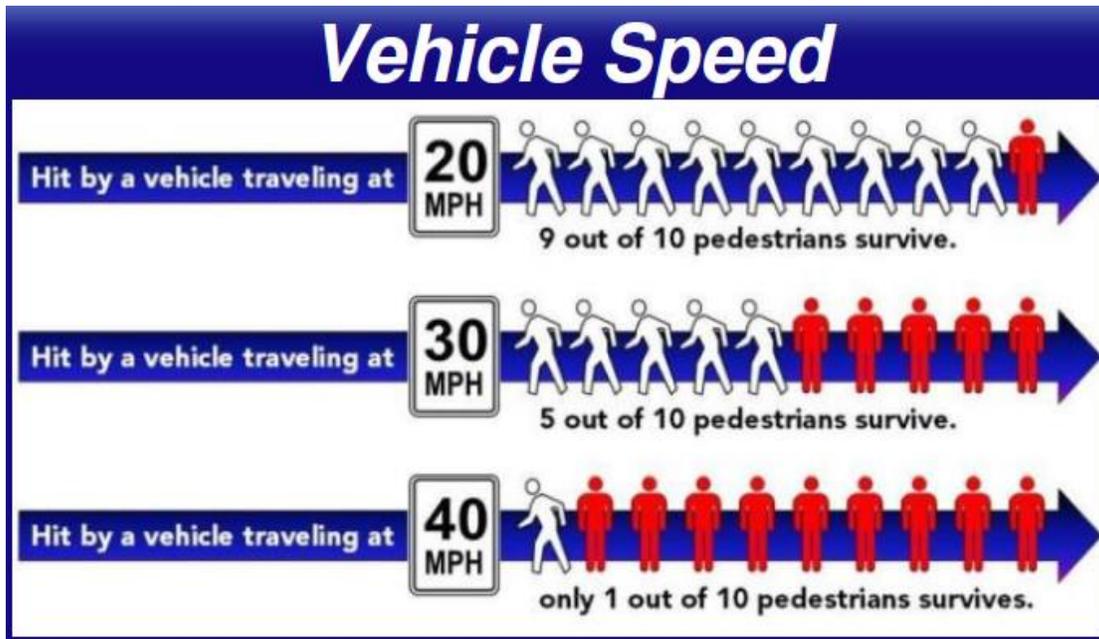
The Bellingham City Council voted to lower the current posted speed limit of 35 mph to 30 mph for the entire 2.48-mile Alabama Street corridor from Cornwall Avenue to Electric Avenue. The 1.75-miles from Cornwall Avenue to St. Clair Street at the base of the Alabama Hill is within the project limits, but the additional .73-mile between St. Clair Street and Electric Avenue at Lake Whatcom is outside of the project limits.

Public Works is confident that the construction of the 6 new and enhanced crossings of Alabama will have an overall speed reduction effect on the Alabama corridor and the reduction of the posted speed limit should both increase driver reaction time to stop at pedestrian crossings and lessen the severity of any injury collisions that may occur, increase the probability of survival for any pedestrians, bicyclists, or transit riders that may be involved in collisions, and will enhance the quality of life for residents of the Roosevelt Neighborhood who live along Alabama Street.

EFFECTS OF AUTOMOBILE SPEED ON STOPPING DISTANCE



Probability of Survival for Pedestrians Hit by Vehicles Traveling at Different Speeds



Bellingham City Council-Approved Speed Limit of 30 mph



Arterial Resurfacing and Rechannalization

The 1.75-mile Alabama corridor between Cornwall Avenue and St. Clair Street has been steadily moving up the City's priority list of arterial streets that require asphalt resurfacing and, coincidentally, it appears that Alabama can be included as the top priority in Bellingham's 2015 overlay program. Grinding and resurfacing the arterial street provides safety advantages for all users, including:

- Smooth and even surfaces for ADA compliance at all signals, curb ramps, and crosswalks;
- Clear demarcation of rechannalized vehicle travel lanes, center turn lanes, bicycle lanes (west end), center lane refuges, and crosswalks;
- Clear demarcation of new travel lane widths at intersections to maximize peak hour vehicle capacity in extended left-turn lanes; and
- Installation of all new retro-reflective lane delineators and thermo-plastic fog lines and crosswalks for increased visibility at night and in dark winter months.

Project Engineer Freeman Anthony has provided cost estimates for the safety improvements as follows:

2015 Alabama Street Recommended Safety Improvements		
HAWK signals, ADA, widening, c-curbs	\$1,236,422.00	10% Contingency Included
Arterial Resurfacing	\$1,100,668.25	10% Contingency Included
	\$2,337,090.25	Total

The federal HSIP grant award is for \$1,461,824, which means that **\$225,402** will remain after HAWK signals, widening to add/extend left-turn lane, and installation of c-curb medians are constructed. Bellingham requests that the **\$225,402** in federal HSIP funding be directed toward arterial resurfacing, which will provide additional safety improvements. The City of Bellingham will fund the remaining **\$875,266** cost for asphalt resurfacing that is not covered by federal HSIP funding.

Conclusions

The recommended safety improvements for Alabama Street are consistent with the:

- 2005 Whatcom Transportation Authority Strategic Plan;
- 2006 Transportation Element of the Bellingham Comprehensive Plan;
- 2012 Bellingham Pedestrian Master Plan;
- 2014 Bellingham Bicycle Master Plan; and
- 2013 WSDOT Target Zero Safety Plan

The recommended safety improvements for Alabama Street have been endorsed by:

- Bellingham Police, Fire, and Public Works Departments
- Whatcom Transportation Authority (See letter attached)
- Whatcom Council of Governments (See letter attached);
- Bellingham Transportation Commission (See Resolution passed March 11, 2014; attached)
- Bellingham City Council (See record of legislative action taken June 9, 2014; attached)

The \$1,461,824 federal HSIP funding requires that Phase 2 Alabama Street Multimodal Safety Improvements (ES-466) must be completed by September 30, 2015. Bellingham Public Works anticipates the following project schedule moving forward to complete the project:

- | | |
|---------------------------------------------|--------------------|
| • City Council approval of project elements | June 9, 2014 |
| • City Council adoption of 2015-2020 TIP | June 23, 2014 |
| • Federal NEPA requirements completed | September 30, 2014 |
| • Project design and engineering completed | December 2014 |
| • Obligation of construction funds | January 2015 |
| • Advertisement and bids | February 2015 |
| • Contract awarded | March 2015 |
| • Construction Begins | June 2015 |
| • Construction complete | September 30, 2015 |

Questions about the transportation planning analysis and project elements should be directed to:

Chris Comeau, AICP, Transportation Planner at (360) 778-7946 or ccomeau@cob.org

Questions about the engineering cost estimates or construction schedule should be directed to:

Freeman Anthony, P.E., Project Engineer at (360) 778-7924 or fanthony@cob.org



4111 Baker Street, Bellingham, WA 98226

(360) 879-8643 (voice & TDD)
Fax: (360) 738-7302
Website: www.wta.wa.gov

February 27, 2014

City of Bellingham
Public Works Department
210 Lottie St.
Bellingham, WA 98225

RE: Alabama Street Corridor Safety Improvement Project

Dear City of Bellingham:

The Whatcom Transportation Authority (WTA) supports the *Alabama Street Corridor Safety Improvement Project*. The project as envisioned would improve safety along a 1.7 mile stretch of Alabama by limiting turning movements that aren't at an intersection, adding right turn lane "pockets" at key locations and add a number of pedestrian crossings. These actions should help to reduce the number of accidents and improve pedestrian safety to and from WTA bus stops.

WTA staff have reviewed the "Draft Alternatives Analysis Report (December 2013)" and have agreed to move and consolidate selected bus stops to better serve the future pedestrian crossings. All told WTA does not see this project noticeably affecting on-time performance of route 331 along this corridor.

WTA appreciates the excellent working relationship we have with the City of Bellingham and our involvement with the design review committee for this project.

Sincerely,

Pete Stark
General Manager



whatcom council of governments

314 East Champion Street
Bellingham, Washington 98225

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f: 360.735.6232

w: wco.org

March 5, 2014

Mr. Chris Comeau, AICP, Transportation Planner
City of Bellingham Public Works Department
210 Lottie Street
Bellingham, Washington 98225

RE: **Alabama Street Corridor Safety Improvement Feasibility Study**

Dear Mr. Comeau:

The Whatcom Council of Governments is pleased to provide this letter in support of the Alabama Street Corridor Safety Improvement Feasibility Study that the City of Bellingham has prepared to address the significant problem of vehicle collisions in the 1.75-mile section of the Alabama Street corridor between Cornwall Avenue and St. Clair Street. The Washington State Department of Transportation has identified that section as having the second-highest number of vehicle collisions in Whatcom County over the five-year period ending in 2010.

The simulation modeling performed by Principal Planner Andrés Gomez of my staff revealed that implementation of the so-called "Hybrid Road Diet" – whereby only the eastern and western ends of the corridor would be reduced from four lanes to three, in conjunction with other treatments in the corridor's central section – would not adversely impact travel times to a significant degree on this heavily-used arterial road. The Hybrid Road Diet is WCOG's preferred alternative for addressing the documented safety issues in the Alabama Street corridor while maintaining the current level of mobility for the thousands of people who travel through it daily.

Very truly yours,

A handwritten signature in black ink that reads "R. H. Wilson".

Robert H. Wilson, AICP
Executive Director

RESOLUTION NO.2014-02

A RESOLUTION BY THE BELLINGHAM TRANSPORTATION COMMISSION REGARDING THE ALABAMA STREET CORRIDOR FEASIBILITY STUDY AND SAFETY IMPROVEMENTS

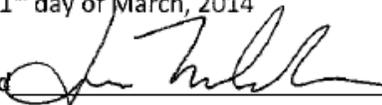
The Transportation Commission (TC) has previously noted the high collision rate on Alabama Street in its 2011 recommendations on the initial bike and pedestrian projects to be funded by the Transportation Benefit District. The current Federal Highway Safety Improvement Program grant provides a good opportunity to address many of the Alabama Street corridor safety issues.

Overall, the TC supports the recommended hybrid 4-to-3-lane "Road Diet" on parts of the Alabama corridor, where feasible, with "C-curb" median and turn lanes on other parts. The project also provides an opportunity to include several of the recommended crossing/intersection improvements included in the recent Pedestrian and Bicycle Master Plans.

The TC has the following additional comments:

- The funding requirements and source of funds for the recommended project should be clearly spelled out.
- City staff should continue to work with residents of the affected neighborhoods to update neighborhood plans to reflect current conditions and future opportunities to improve multimodal transportation circulation in the neighborhoods.
- The TC encourages the use of street side amenities to soften the pedestrian environment on the corridor.

PASSED by the City of Bellingham Transportation Commission
this 11th day of March, 2014

Signed 
Chair, City of Bellingham Transportation Commission



City of Bellingham
City Council Regular Meeting Action Summary
06/09/2014, 7:00 PM

Mayor Kelli Linville
Council Members Jack Weiss, Gene Knutson, Cathy
Lehman, Pinky Vargas, Terry Bornemann, Michael Lilliquist
and Roxanne Murphy

Contact: (360) 778-8200, cmail@cob.org
www.cob.org/council
All meetings are held in the City Hall Council Chambers at
210 Lottie Street, Bellingham, WA unless otherwise noted.

20370 6. Work Session on the Alabama Corridor Safety Improvements

Terry Bornemann / Jack Weiss moved to recommend approving the staff alternative proposal to reduce the C-curb . MOTION CARRIED 7-0.

Terry Bornemann / Gene Knutson moved to recommend a reduction in the speed limit. Michael Lilliquist / Gene Knutson moved to amend the motion and to specify reducing the speed limit from 35 to 30 mph along the entire length of Alabama; Cornwall to Electric. MOTION CARRIED 7-0.
MAIN MOTION 7-0.

Alabama Street Corridor Multimodal Safety Improvement Project

West Section

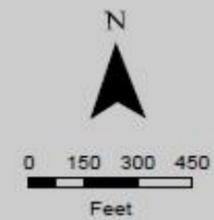
Key

-  Full Traffic Signal
-  1/2 or HAWK Traffic Signal
-  Flashing Crosswalk
-  Pedestrian Crosswalk
-  Pedestrian Crosswalk with Center Refuge
-  Consolidated WTA Transit Stop (Westbound)
-  Eliminated WTA Transit Stop (Westbound)
-  Fire Hydrants

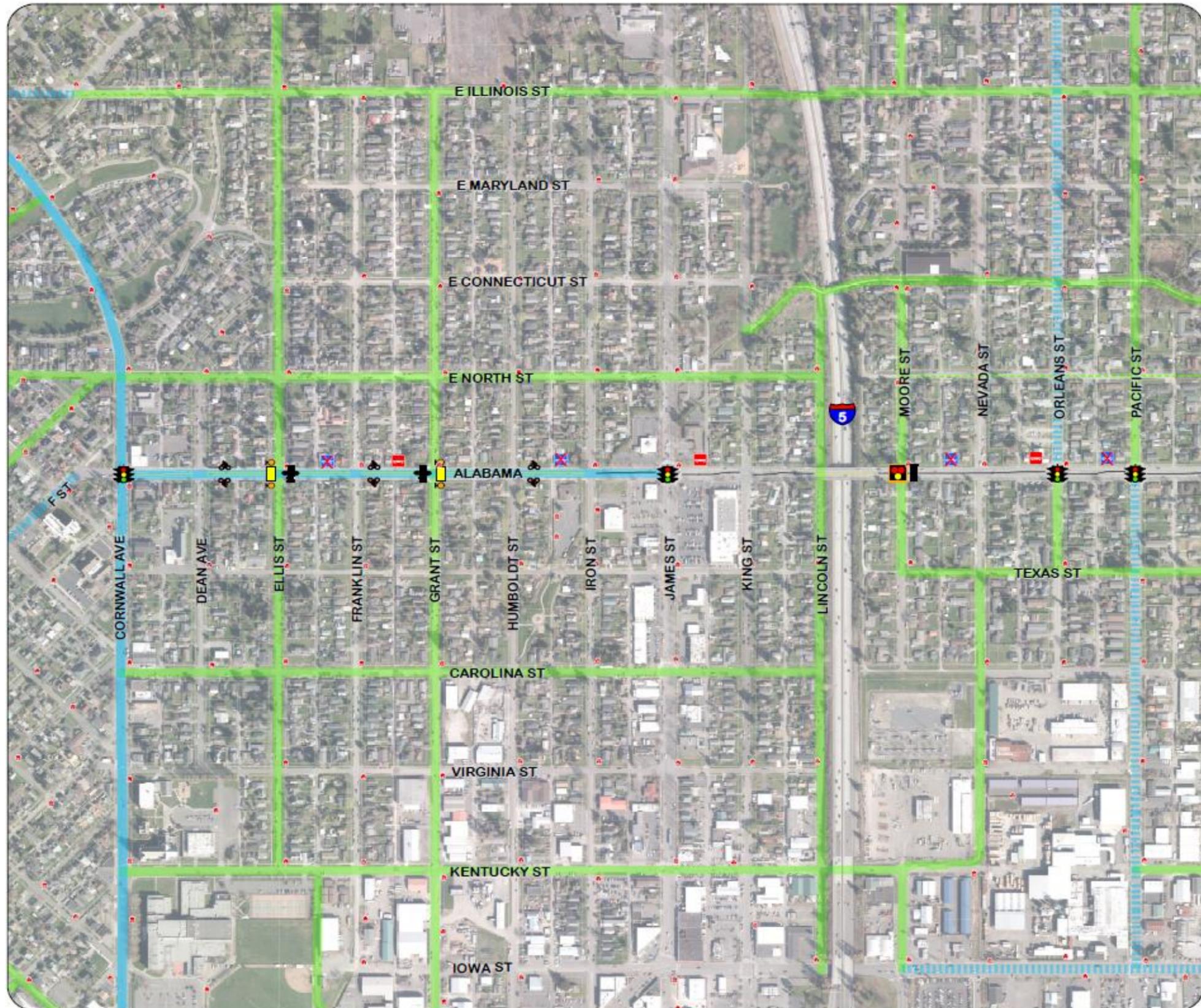
Proposed Alabama Lane Channelization

-  Bike Lanes
-  White lane striping
-  Yellow lane striping
-  C-Curb Median
-  C-Curb + Turn Lane
-  Semi-Diverter at Xenia/Alabama
-  2 Eastbound & 1 Westbound Lanes
-  Bike Lanes with Center Turn Lane
-  Bike Lanes Proposed (BMP)
-  Bike Boulevard or Trail (BMP)
-  Future Residential Street & Bike Boulevard
-  Street Widening

Air Photo Flown March 2013



March 2014



Alabama Street Corridor Multimodal Safety Improvement Project

Center Section

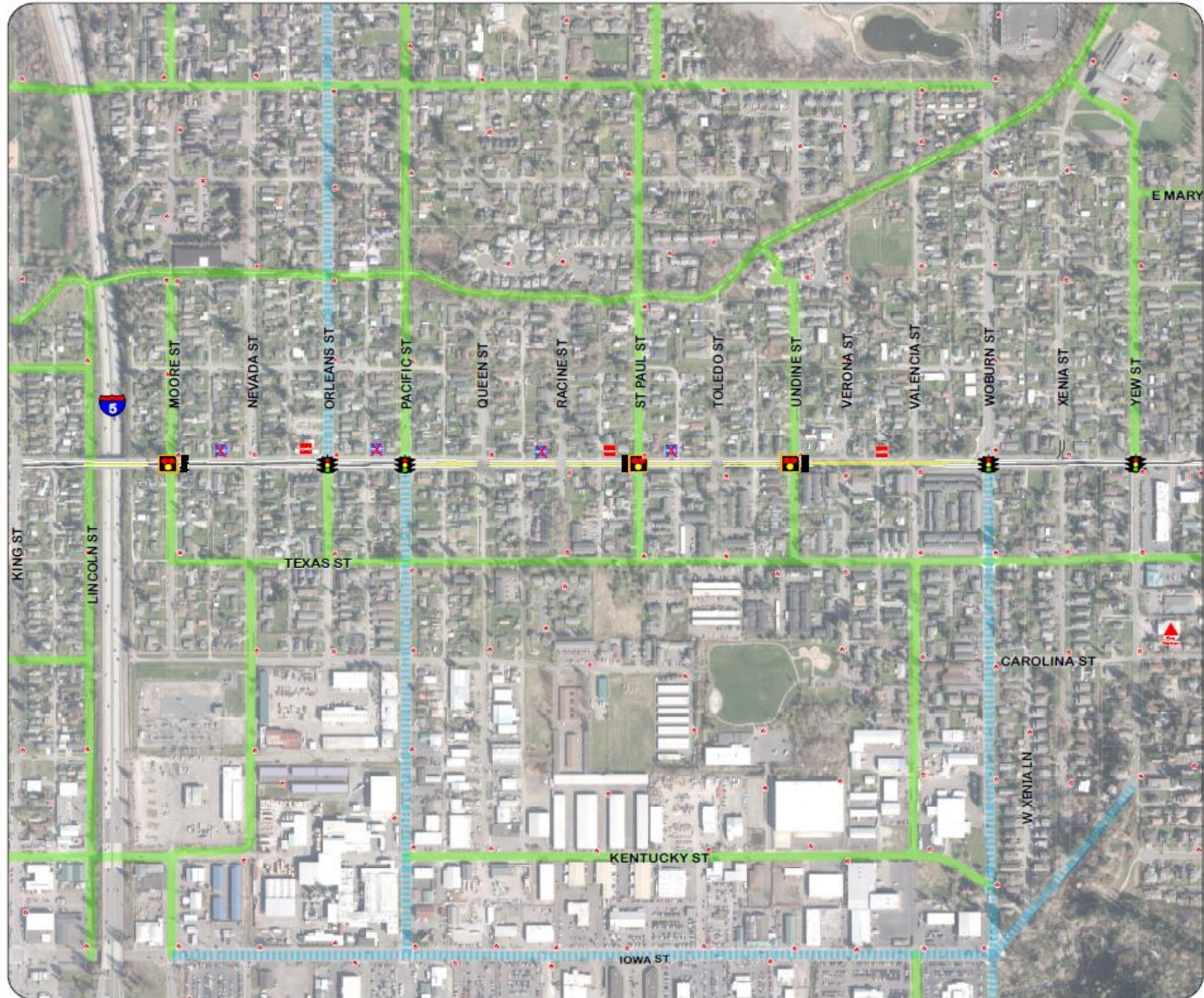
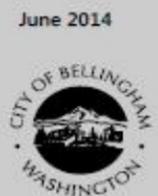
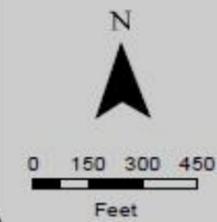
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Proposed Alabama Lane Channelization

-  Bike Lanes
-  White lane striping
-  Yellow lane striping
-  C-Curb Median
-  C-Curb + Turn Lane
-  Semi-Diverter at Xenia/Alabama
-  2 Eastbound & 1 Westbound Lanes
-  Bike Lanes with Center Turn Lane
-  Bike Lanes Proposed (BMP)
-  Bike Boulevard or Trail (BMP)
-  Street Widening

Air Photo Flown March 2013



Alabama Street Corridor Multimodal Safety Improvement Project

East Section

Key

-  Full Traffic Signal
-  1/2 or HAWK Traffic Signal
-  Flashing Crosswalk
-  Pedestrian Crosswalk
-  Pedestrian Crosswalk with Center Refuge
-  Consolidated WTA Transit Stop (Westbound)
-  Eliminated WTA Transit Stop (Westbound)
-  Fire Hydrants

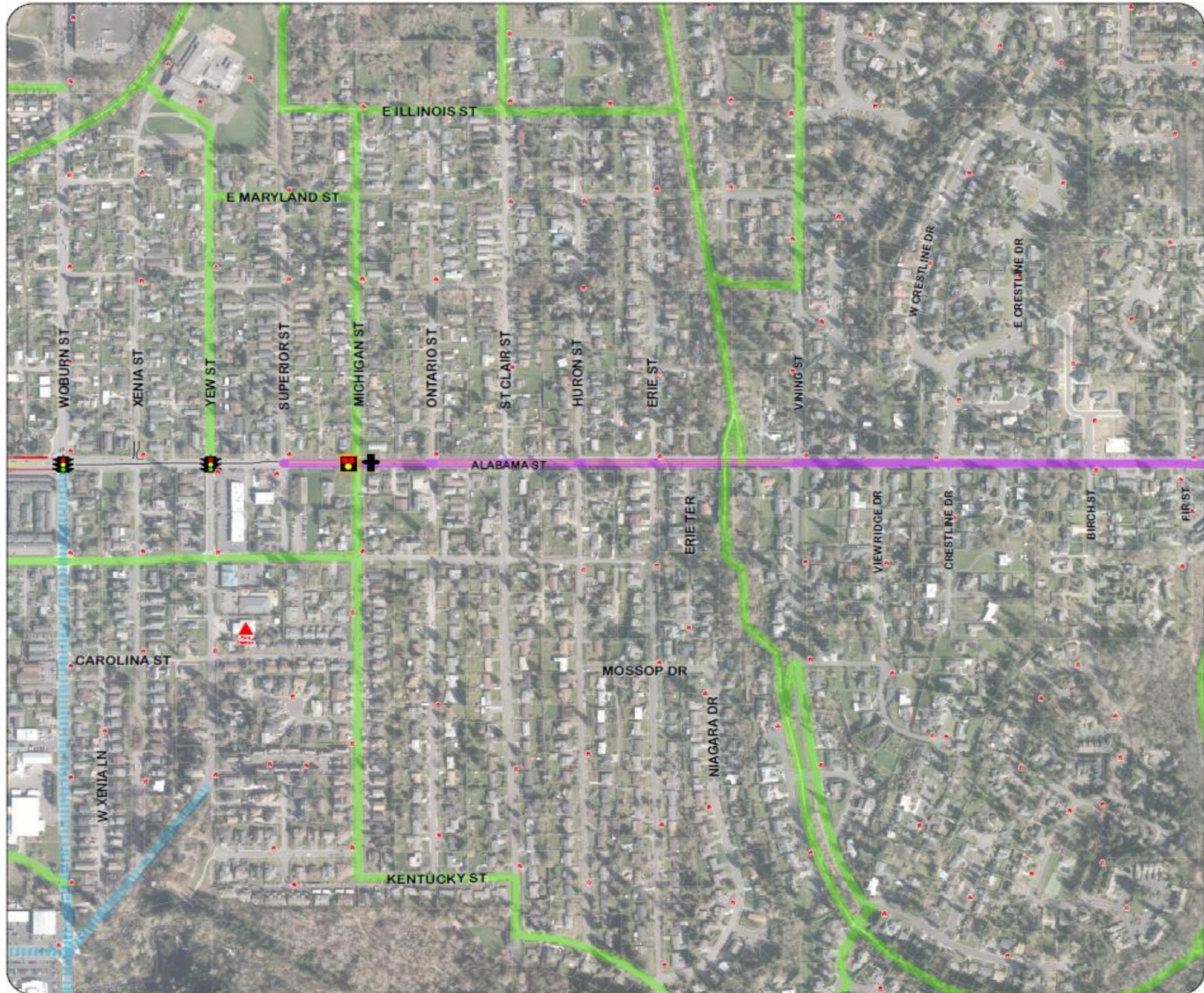
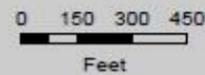
Proposed Alabama Lane Channelization

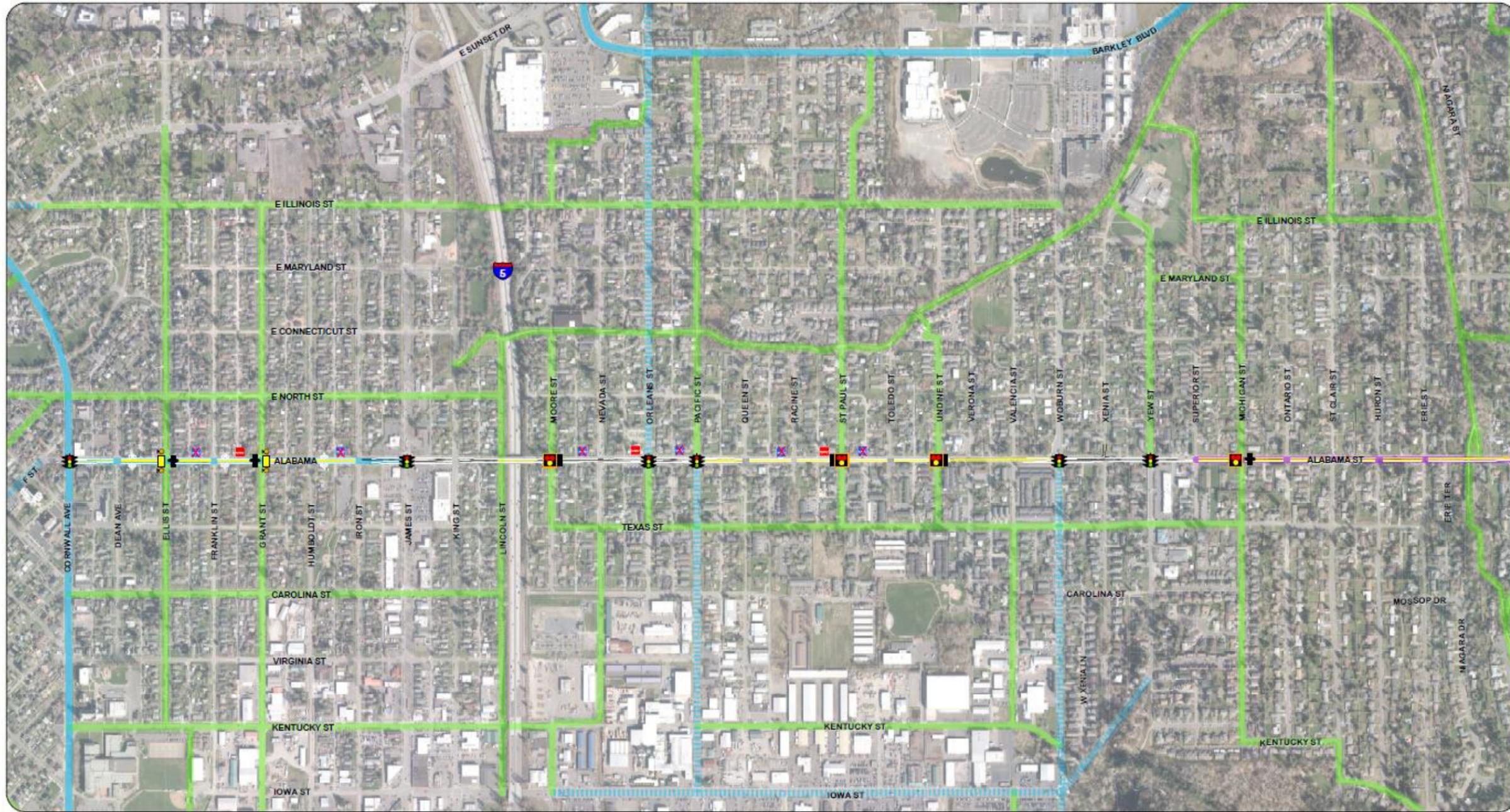
-  Bike Lanes
-  White lane striping
-  Yellow lane striping
-  C-Curb Median
-  C-Curb + Turn Lane
-  Semi-Diverter at Xenia/Alabama
-  2 Eastbound & 1 Westbound Lanes
-  Bike Lanes with Center Turn Lane
-  Bike Lanes Proposed (BMP)
-  Bike Boulevard or Trail (BMP)
-  Future Residential Street & Bike Boulevard
-  Street Widening

Air Photo Flown March 2013



March 2014





Alabama Street Corridor Multimodal Safety Improvement Project

Overview Map

Key

- Full Traffic Signal
- 1/2 or HAWK Traffic Signal
- Flashing Crosswalk
- Pedestrian Crosswalk
- Pedestrian Crosswalk with Center Refuge
- Consolidated WTA Transit Stop
- Eliminated WTA Transit Stop

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Air Photo Flown March 2013

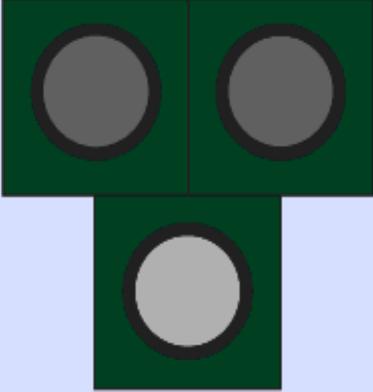
N

June 2014

CITY OF BELLINGHAM
WASHINGTON

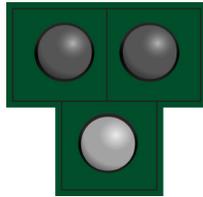
0 150 300 450 600
Feet

SR 104 - Edmonds City Park Vicinity Mid-Block Pedestrian Crossing - Crosswalk Animation

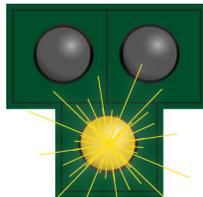
What drivers see	What pedestrians see
 <p>Flashing Yellow</p> <hr/> <p>ACTION REQUIRED</p> <p>Prepare to Stop</p>	 <p>START CROSSING Watch For Vehicles</p> <p>DON'T START Finish Crossing If Started</p> <p>08 TIME REMAINING To Finish Crossing</p> <p>STOP DON'T CROSS</p> <p>PUSH BUTTON TO CROSS</p>



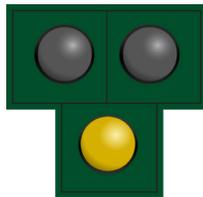
How to navigate a **H**igh-intensity **A**ctivated cross **W**alk (HAWK) signal



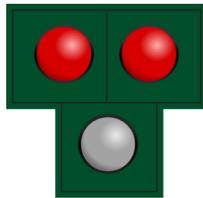
The signal is **off**
when no pedestrians are using it.



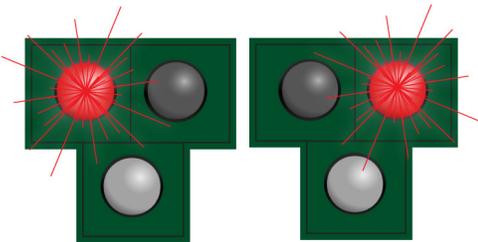
The yellow **warning light flashes**
to warn drivers to begin slowing.



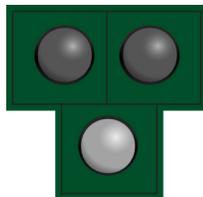
The yellow **light is solid**
to warn drivers to come to a stop.



Two solid red lights stop drivers
so pedestrians may cross the intersection.



The **red lights begin to flash**, indicating drivers may pull up to the stop line, stop, verify the crosswalk is clear and then proceed through the intersection. All cars must stop before proceeding through the flashing reds.



The **signal turns off** again,
indicating cars may proceed without stopping.





BID TABULATION (BID #4B-2015)

BIDS OPENED: April 10, 2015, 11:00 AM

PROJECT: ES466 - Alabama Street Corridor Safety Improvements

one

SAFETY PROJECT Schedule A	QTY	UNIT	ENGINEER'S ESTIMATE		AWARD CONSTRUCTION		TIGER CONSTRUCTION		GRANITE CONSTRUCTION CO		SRV CONSTRUCTION INC		FABER CONSTRUCTION CORP	
			UNIT PRICE	EXT	UNIT PRICE	EXT	UNIT PRICE	EXT	UNIT PRICE	EXT	UNIT PRICE	EXT	UNIT PRICE	EXT
1 MOBILIZATION	1	LS	\$50,000.00	\$50,000.00	\$78,000.00	\$78,000.00	\$116,050.00	\$116,050.00	\$114,000.00	\$114,000.00	\$156,000.00	\$156,000.00	\$107,711.47	\$107,711.47
2 CONSTRUCTOR SURVEYING	1	LS	\$9,000.00	\$9,000.00	\$20,000.00	\$20,000.00	\$16,770.00	\$16,770.00	\$25,000.00	\$25,000.00	\$36,570.00	\$36,570.00	\$19,211.52	\$19,211.52
3 SPCP PLAN	1	LS	\$4,000.00	\$4,000.00	\$600.00	\$600.00	\$1,105.00	\$1,105.00	\$500.00	\$500.00	\$300.00	\$300.00	\$985.60	\$985.60
4 TYPE B PROJECT SCHEDULE	1	LS	\$2,200.00	\$2,200.00	\$1,200.00	\$1,200.00	\$2,765.00	\$2,765.00	\$500.00	\$500.00	\$4,000.00	\$4,000.00	\$4,928.00	\$4,928.00
5 TRAFFIC CONTROL FLAGGERS	3200	HR	\$45.00	\$144,000.00	\$47.00	\$150,400.00	\$51.80	\$165,760.00	\$54.00	\$172,800.00	\$57.50	\$184,000.00	\$56.00	\$179,200.00
6 PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$8,000.00	\$8,000.00	\$23,000.00	\$23,000.00	\$84,490.00	\$84,490.00	\$60,000.00	\$60,000.00	\$34,500.00	\$34,500.00	\$228,900.00	\$228,900.00
7 STRAW WATTLES	800	LF	\$3.50	\$2,800.00	\$4.35	\$3,480.00	\$3.25	\$2,600.00	\$3.50	\$2,800.00	\$3.45	\$2,760.00	\$4.48	\$3,584.00
8 CATCH BASIN INSERTS	100	EA	\$100.00	\$10,000.00	\$95.00	\$9,500.00	\$61.60	\$6,160.00	\$85.00	\$8,500.00	\$90.00	\$9,000.00	\$49.00	\$4,900.00
9 CLEARING AND GRUBBING	1	LS	\$10,000.00	\$10,000.00	\$30,000.00	\$30,000.00	\$23,310.00	\$23,310.00	\$7,500.00	\$7,500.00	\$48,000.00	\$48,000.00	\$15,722.86	\$15,722.86
10 SAWCUTTING	11760	IN-FT	\$0.50	\$5,880.00	\$0.35	\$4,116.00	\$0.61	\$7,173.60	\$1.00	\$11,760.00	\$0.80	\$9,408.00	\$0.98	\$11,524.80
11 REMOVAL OF EXISTING CONCRETE	250	CY	\$25.00	\$6,250.00	\$64.00	\$16,000.00	\$97.70	\$24,425.00	\$100.00	\$25,000.00	\$195.00	\$48,750.00	\$44.24	\$11,060.00
12 REMOVAL OF EXISTING ASPHALT	150	CY	\$15.00	\$2,250.00	\$39.00	\$5,850.00	\$75.20	\$11,280.00	\$75.00	\$11,250.00	\$268.00	\$40,200.00	\$35.28	\$5,292.00
13 ROADWAY EXCAVATION INCL. HAUL	902	CY	\$15.00	\$13,530.00	\$41.00	\$36,982.00	\$30.20	\$27,240.40	\$25.00	\$22,550.00	\$74.00	\$66,748.00	\$26.92	\$24,281.84
14 COLD MIX ASPHALT	300	TN	\$80.00	\$24,000.00	\$180.00	\$54,000.00	\$149.00	\$44,700.00	\$200.00	\$60,000.00	\$175.00	\$52,500.00	\$123.18	\$36,954.00
15 RELOCATE EXISTING CATCH BASIN	6	EA	\$400.00	\$2,400.00	\$1,200.00	\$7,200.00	\$1,425.00	\$8,550.00	\$2,100.00	\$12,600.00	\$1,950.00	\$11,700.00	\$2,830.40	\$16,982.40
16 CATCH BASIN - TYPE 1	4	EA	\$1,100.00	\$4,400.00	\$2,000.00	\$8,000.00	\$2,560.00	\$10,240.00	\$1,800.00	\$7,200.00	\$1,600.00	\$6,400.00	\$2,248.67	\$8,994.68
17 CATCH BASIN - TYPE 2	1	EA	\$2,100.00	\$2,100.00	\$4,000.00	\$4,000.00	\$5,390.00	\$5,390.00	\$3,300.00	\$3,300.00	\$4,300.00	\$4,300.00	\$3,388.40	\$3,388.40
18 STORMDRAIN PIPE - 8" PVC	240	LF	\$35.00	\$8,400.00	\$65.00	\$15,600.00	\$47.90	\$11,496.00	\$55.00	\$13,200.00	\$43.50	\$10,440.00	\$33.57	\$8,056.80
19 STORMDRAIN PIPE - 12" PVC	200	LF	\$45.00	\$9,000.00	\$52.00	\$10,400.00	\$59.20	\$11,840.00	\$70.00	\$14,000.00	\$60.00	\$12,000.00	\$39.67	\$7,934.00
20 FILTERRA UNIT - 4X4 INCLUDING TREE	2	EA	\$12,500.00	\$25,000.00	\$17,000.00	\$34,000.00	\$17,000.00	\$34,000.00	\$22,000.00	\$44,000.00	\$16,175.00	\$32,350.00	\$15,237.07	\$30,474.14
21 FILTERRA UNIT - 4X6 INCLUDING TREE	4	EA	\$16,500.00	\$66,000.00	\$15,500.00	\$62,000.00	\$18,680.00	\$74,720.00	\$25,000.00	\$100,000.00	\$15,585.00	\$62,340.00	\$16,703.13	\$66,812.52
22 CONNECTION TO EXISTING DRAINAGE STRUCTURE	12	EA	\$200.00	\$2,400.00	\$450.00	\$5,400.00	\$833.00	\$9,996.00	\$845.00	\$10,140.00	\$650.00	\$7,800.00	\$651.07	\$7,812.84
23 GRAVEL BASE	217	TN	\$12.00	\$2,604.00	\$24.00	\$5,208.00	\$21.10	\$4,578.70	\$35.00	\$7,595.00	\$28.00	\$6,076.00	\$39.84	\$8,645.28
24 CEMENT CONC CURB & GUTTER	1975	LF	\$21.00	\$41,475.00	\$30.00	\$59,250.00	\$30.30	\$59,842.50	\$25.00	\$49,375.00	\$30.00	\$59,250.00	\$26.23	\$51,804.25
25 CEMENT CONC SIDEWALK	337	SY	\$35.00	\$11,025.00	\$81.00	\$27,297.00	\$66.90	\$22,545.30	\$75.00	\$25,275.00	\$76.00	\$25,612.00	\$60.00	\$20,220.00
26 POROUS CONCRETE SIDEWALK	315	SY	\$45.00	\$9,900.00	\$105.00	\$33,075.00	\$80.00	\$25,200.00	\$85.00	\$26,775.00	\$104.00	\$32,760.00	\$85.09	\$26,803.35
27 PEDESTRIAN CURB	400	LF	\$20.00	\$10,080.00	\$28.00	\$11,200.00	\$34.90	\$13,960.00	\$23.00	\$9,200.00	\$28.75	\$11,500.00	\$22.40	\$8,960.00
28 PEDESTRIAN SAFETY BARRIER	220	LF	\$120.00	\$26,400.00	\$28.50	\$6,270.00	\$140.00	\$30,800.00	\$140.00	\$30,800.00	\$138.00	\$30,360.00	\$59.32	\$13,050.40
29 TEXTURED CONCRETE SIDEWALK (PARKWAY)	504	SY	\$110.00	\$55,440.00	\$135.00	\$68,040.00	\$79.30	\$39,967.20	\$87.00	\$43,848.00	\$88.00	\$44,352.00	\$71.37	\$35,970.48
30 TRUNCATED DOMES	41	EA	\$300.00	\$12,300.00	\$550.00	\$22,550.00	\$407.00	\$16,687.00	\$400.00	\$16,400.00	\$575.00	\$23,575.00	\$420.00	\$17,220.00
31 CONCRETE MOUNTABLE C-CURB	2650	LF	\$25.00	\$66,250.00	\$22.50	\$59,625.00	\$23.30	\$61,745.00	\$22.00	\$58,300.00	\$27.73	\$73,484.50	\$24.35	\$64,527.50
32 CRUSHED SURFACING TOP COURSE	84	TN	\$25.00	\$2,100.00	\$52.00	\$4,368.00	\$36.30	\$3,049.20	\$45.00	\$3,780.00	\$39.00	\$3,276.00	\$49.54	\$4,161.36

33	REMOVE EX PAVEMENT MARKING - CORNWALL TO JAM	1	LS	\$5,000.00	\$5,000.00	\$26,000.00	\$26,000.00	\$271.00	\$271.00	\$500.00	\$500.00	\$31,625.00	\$31,625.00	\$8,011.52	\$8,011.52
34	PLANING BITUMINUS PAVEMENT	20000	SY	\$1.50	\$30,000.00	\$2.20	\$44,000.00	\$1.85	\$37,000.00	\$1.75	\$35,000.00	\$2.00	\$40,000.00	\$2.90	\$58,000.00
35	HMA ASPHALT - CLASS 1/2"	410	TN	\$105.00	\$43,050.00	\$82.00	\$33,620.00	\$78.20	\$32,062.00	\$80.00	\$32,800.00	\$83.00	\$34,030.00	\$86.52	\$35,473.20
36	STRIPING - 4"	6860	LF	\$3.50	\$24,010.00	\$3.60	\$24,696.00	\$3.50	\$24,010.00	\$3.50	\$24,010.00	\$3.68	\$25,244.80	\$3.69	\$25,313.40
37	PAVEMENT MARKINGS - CROSSWALKS	1000	SF	\$10.00	\$10,000.00	\$9.00	\$9,000.00	\$8.70	\$8,700.00	\$9.00	\$9,000.00	\$9.20	\$9,200.00	\$9.14	\$9,140.00
38	PAVEMENT MARKINGS - STOP BARS	600	SF	\$20.00	\$12,000.00	\$9.00	\$5,400.00	\$8.70	\$5,220.00	\$9.00	\$5,400.00	\$9.20	\$5,520.00	\$9.26	\$5,556.00
39	PAVEMENT SYMBOLS - ARROWS	20	EA	\$200.00	\$4,000.00	\$190.00	\$3,800.00	\$185.00	\$3,700.00	\$180.00	\$3,600.00	\$195.00	\$3,900.00	\$199.54	\$3,990.80
40	PAVEMENT SYMBOLS - BIKE SYMBOLS	12	EA	\$230.00	\$2,760.00	\$200.00	\$2,400.00	\$217.00	\$2,604.00	\$200.00	\$2,400.00	\$230.00	\$2,760.00	\$239.24	\$2,870.88
41	RPMS - TYPE 1	6920	EA	\$2.00	\$13,840.00	\$3.30	\$22,836.00	\$3.25	\$22,490.00	\$3.25	\$22,490.00	\$3.45	\$23,874.00	\$3.57	\$24,704.40
42	RPMS - TYPE 2	1730	EA	\$3.00	\$5,190.00	\$3.90	\$6,747.00	\$3.80	\$6,574.00	\$3.75	\$6,487.50	\$4.00	\$6,920.00	\$3.92	\$6,781.60
43	RELOCATION OF STREETPOLE AND POWER	12	EA	\$2,000.00	\$24,000.00	\$4,000.00	\$48,000.00	\$3,130.00	\$37,560.00	\$3,250.00	\$39,000.00	\$3,315.00	\$39,780.00	\$3,276.92	\$39,323.04
44	FLASHER RELOCATION - YEW TO ELLIS	1	EA	\$6,000.00	\$6,000.00	\$12,000.00	\$12,000.00	\$11,150.00	\$11,150.00	\$11,000.00	\$11,000.00	\$11,800.00	\$11,800.00	\$11,873.76	\$11,873.76
45	HAWK SIGNAL - MOORE, UNDINE, MICHIGAN	4	EA	\$60,000.00	\$240,000.00	\$75,000.00	\$300,000.00	\$63,820.00	\$255,280.00	\$66,500.00	\$266,000.00	\$67,600.00	\$270,400.00	\$66,220.36	\$264,881.44
46	JUNCTION BOX ADJUSTMENT	1	FA	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
47	MODULAR BLOCK RETAINING WALL	210	SF	\$25.00	\$5,250.00	\$100.00	\$21,000.00	\$28.20	\$5,922.00	\$35.00	\$7,350.00	\$46.00	\$9,660.00	\$40.39	\$8,481.90
48	GRANULAR BACKFILL	84	TN	\$15.00	\$1,260.00	\$34.00	\$2,856.00	\$25.10	\$2,108.40	\$45.00	\$3,780.00	\$39.00	\$3,276.00	\$45.87	\$3,853.08
49	BARK MULCH INSTALLATION	100	CY	\$75.00	\$7,500.00	\$72.00	\$7,200.00	\$69.50	\$6,950.00	\$55.00	\$5,500.00	\$55.00	\$5,500.00	\$68.26	\$6,826.00
50	STREET TREE - ARBORVITAE	24	EA	\$300.00	\$7,200.00	\$90.00	\$2,160.00	\$86.80	\$2,083.20	\$440.00	\$10,560.00	\$287.00	\$6,888.00	\$455.62	\$10,934.88
51	STREET TREES - OTHER	10	EA	\$400.00	\$4,000.00	\$450.00	\$4,500.00	\$429.00	\$4,290.00	\$770.00	\$7,700.00	\$630.00	\$6,300.00	\$802.28	\$8,022.80
52	ROOT BARRIER FOR EXISTING TREES	300	LF	\$12.00	\$3,600.00	\$12.00	\$3,600.00	\$13.00	\$3,900.00	\$16.00	\$4,800.00	\$17.25	\$5,175.00	\$17.40	\$5,220.00
53	TOPSOIL TYPE B	200	CY	\$30.00	\$6,000.00	\$46.00	\$9,200.00	\$45.60	\$9,120.00	\$42.00	\$8,400.00	\$45.00	\$9,000.00	\$45.50	\$9,100.00
54	LAWN INSTALLATION WITH SOD	336	SY	\$15.00	\$5,040.00	\$8.60	\$2,889.60	\$8.30	\$2,788.80	\$7.00	\$2,352.00	\$7.50	\$2,520.00	\$9.21	\$3,094.56
55	ROADSIDE RESTORATION	1	FA	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00
56	UNFORESEEN UTILITY RELOCATION	1	FA	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00
							\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
							\$0.00		\$0.00		\$0.00		\$0.00		\$0.00

SAFTEY IMPROVEMENTS TOTAL

\$1,163,884.00

\$1,523,515.60

\$1,517,219.30

\$1,561,077.50

\$1,758,684.30

\$1,662,527.75

OVERLAY PROJECT - SCHEDULE B															
56	MOBILIZATION	1	LS	\$75,000.00	\$75,000.00	\$47,000.00	\$47,000.00	\$57,000.00	\$57,000.00	\$87,000.00	\$87,000.00	\$50,500.00	\$50,500.00	\$126,103.04	\$126,103.04
57	WASTE MANAGEMENT PLAN	1	LS	\$300.00	\$300.00	\$2,500.00	\$2,500.00	\$576.00	\$576.00	\$500.00	\$500.00	\$2,000.00	\$2,000.00	\$7,216.00	\$7,216.00
58	PROJECT WARRANTY	1	LS	\$2,500.00	\$2,500.00	\$2,000.00	\$2,000.00	\$5,530.00	\$5,530.00	\$500.00	\$500.00	\$100.00	\$100.00	\$11,200.00	\$11,200.00
59	TRAFFIC CONTROL LABOR	1800	HR	\$45.00	\$81,000.00	\$47.00	\$84,600.00	\$51.80	\$93,240.00	\$54.00	\$97,200.00	\$57.50	\$103,500.00	\$55.00	\$99,000.00
60	PROJECT TEMPORARY TRAFFIC CONTROL	1	LS	\$4,500.00	\$4,500.00	\$21,000.00	\$21,000.00	\$54,800.00	\$54,800.00	\$60,000.00	\$60,000.00	\$34,500.00	\$34,500.00	\$125,050.00	\$125,050.00
61	SAWCUTTING	9340	IN-FT	\$0.50	\$4,670.00	\$0.35	\$3,269.00	\$0.59	\$5,510.60	\$1.00	\$9,340.00	\$0.80	\$7,472.00	\$1.19	\$11,114.60
62	REMOVAL OF EXISTING CONCRETE	400	TN	\$25.00	\$10,000.00	\$64.00	\$25,600.00	\$97.70	\$39,080.00	\$100.00	\$40,000.00	\$195.00	\$78,000.00	\$43.95	\$17,580.00
63	REMOVAL OF EXISTING ASPHALT	200	TN	\$15.00	\$3,000.00	\$39.00	\$7,800.00	\$75.20	\$15,040.00	\$75.00	\$15,000.00	\$268.00	\$53,600.00	\$35.15	\$7,030.00
64	ROADWAY EXCAVATION INCLUDING HAUL	230	CY	\$15.00	\$3,450.00	\$41.00	\$9,430.00	\$32.00	\$7,360.00	\$25.00	\$5,750.00	\$85.00	\$19,550.00	\$35.23	\$8,102.90
65	GRAVEL BASE	157	TN	\$12.00	\$1,884.00	\$24.00	\$3,768.00	\$21.10	\$3,312.70	\$35.00	\$5,495.00	\$28.00	\$4,396.00	\$39.96	\$6,273.72
66	RELOCATE EXISTING CATCHBASIN	4	EA	\$400.00	\$1,600.00	\$1,200.00	\$4,800.00	\$1,445.00	\$5,780.00	\$2,100.00	\$8,400.00	\$1,925.00	\$7,700.00	\$2,247.40	\$8,989.60
67	CATCH BASIN - TYPE 1	4	EA	\$1,100.00	\$4,400.00	\$2,000.00	\$8,000.00	\$2,425.00	\$9,700.00	\$1,800.00	\$7,200.00	\$1,600.00	\$6,400.00	\$2,524.36	\$10,097.44
68	STORMDRAIN PIPE - 12" PVC	200	LF	\$35.00	\$7,000.00	\$65.00	\$13,000.00	\$60.90	\$12,180.00	\$70.00	\$14,000.00	\$56.00	\$11,200.00	\$43.85	\$8,770.00
69	STORMDRAIN PIPE - 8" PVC	170	LF	\$38.00	\$6,460.00	\$65.00	\$11,050.00	\$54.30	\$9,231.00	\$55.00	\$9,350.00	\$56.00	\$9,520.00	\$42.60	\$7,242.00
70	CURB AND GUTTER	2440	LF	\$21.00	\$51,240.00	\$30.00	\$73,200.00	\$32.60	\$79,544.00	\$25.00	\$61,000.00	\$29.00	\$70,760.00	\$26.19	\$63,903.60
71	CEMENT CONCRETE SIDEWALK	807	SY	\$35.00	\$28,245.00	\$81.00	\$65,367.00	\$67.00	\$54,069.00	\$75.00	\$60,525.00	\$77.00	\$62,139.00	\$68.99	\$55,674.93
72	CEMENT CONCRETE DRIVEWAY	684	SY	\$65.00	\$44,460.00	\$83.00	\$56,772.00	\$73.80	\$50,479.20	\$85.00	\$58,140.00	\$80.00	\$54,720.00	\$66.07	\$45,191.88
73	CEMENT CONCRETE PEDESTRIAN CURB	450	LF	\$15.00	\$6,750.00	\$28.00	\$12,600.00	\$34.90	\$15,705.00	\$23.00	\$10,350.00	\$29.00	\$13,050.00	\$22.40	\$10,080.00
74	TRUNCATED DOMES	81	EA	\$300.00	\$24,300.00	\$550.00	\$44,550.00	\$407.00	\$32,967.00	\$400.00	\$32,400.00	\$575.00	\$46,575.00	\$420.00	\$34,020.00
75	RELOCATE JAMES-ALABAMA WB SIGNAL	1	LS	\$25,000.00	\$25,000.00	\$22,000.00	\$22,000.00	\$19,590.00	\$19,590.00	\$20,000.00	\$20,000.00	\$21,275.00	\$21,275.00	\$20,751.60	\$20,751.60
76	RELCOATE JAMES-ALABAMA NB SIGNAL	1	LS	\$25,000.00	\$25,000.00	\$21,000.00	\$21,000.00	\$18,560.00	\$18,560.00	\$20,000.00	\$20,000.00	\$19,650.00	\$19,650.00	\$19,693.20	\$19,693.20
77	PLANING BITUMINUS PAVEMENT	40000	SY	\$1.50	\$60,000.00	\$2.20	\$88,000.00	\$1.45	\$58,000.00	\$1.75	\$70,000.00	\$2.00	\$80,000.00	\$2.93	\$117,200.00
78	BRIDGE SPOT REPAIR	40	SF	\$125.00	\$5,000.00	\$90.00	\$3,600.00	\$111.00	\$4,440.00	\$40.00	\$1,600.00	\$575.00	\$23,000.00	\$280.00	\$11,200.00
79	BRIDGE MEMBRANE	850	SY	\$15.00	\$12,750.00	\$110.00	\$93,500.00	\$101.00	\$85,850.00	\$35.00	\$29,750.00	\$37.00	\$31,450.00	\$142.26	\$120,921.00
80	REMOVE EX PAVEMENT MARKINGS - JAMES TO ST CLA	1	LS	\$5,000.00	\$5,000.00	\$12,000.00	\$12,000.00	\$271.00	\$271.00	\$500.00	\$500.00	\$17,250.00	\$17,250.00	\$23,569.60	\$23,569.60
81	SEPARATION FABRIC	39510	SY	\$3.50	\$138,285.00	\$1.85	\$73,093.50	\$2.95	\$116,554.50	\$3.25	\$128,407.50	\$3.10	\$122,481.00	\$3.10	\$122,481.00
82	WMA PRELEVEL- CLASS 3/8" - CORNWALL TO ST CLAIR	2634	TN	\$85.00	\$223,890.00	\$80.00	\$210,720.00	\$78.20	\$205,978.80	\$79.00	\$208,086.00	\$83.00	\$218,622.00	\$81.46	\$214,565.64
83	WMA OVERLAY - CLASS 1/2" - CORNWALL TO ST CLAIR	7463	TN	\$80.00	\$597,040.00	\$78.00	\$582,114.00	\$76.00	\$567,188.00	\$80.00	\$597,040.00	\$80.50	\$600,771.50	\$78.88	\$588,681.44
84	4" STRIPING	1680	LF	\$3.50	\$5,880.00	\$3.60	\$6,048.00	\$3.50	\$5,880.00	\$3.50	\$5,880.00	\$3.50	\$5,880.00	\$3.79	\$6,367.20
85	PAVEMENT MARKINGS - CROSSWALKS	400	SF	\$10.00	\$4,000.00	\$9.00	\$3,600.00	\$8.70	\$3,480.00	\$9.00	\$3,600.00	\$9.20	\$3,680.00	\$9.18	\$3,672.00
86	PAVEMENT MARKINGS - STOP BARS	200	SF	\$20.00	\$4,000.00	\$9.00	\$1,800.00	\$8.70	\$1,740.00	\$9.00	\$1,800.00	\$9.20	\$1,840.00	\$9.41	\$1,882.00
87	PAVEMENT SYMBOLS - ARROWS	12	EA	\$200.00	\$2,400.00	\$190.00	\$2,280.00	\$185.00	\$2,220.00	\$180.00	\$2,160.00	\$195.00	\$2,340.00	\$209.11	\$2,509.32
88	INDUCTION LOOP TYPE 1	37	EA	\$1,500.00	\$55,500.00	\$1,400.00	\$51,800.00	\$1,355.00	\$50,135.00	\$1,400.00	\$51,800.00	\$1,435.00	\$53,095.00	\$1,439.00	\$53,243.00
89	INDUCTION LOOP TYPE 2	60	EA	\$800.00	\$48,000.00	\$750.00	\$45,000.00	\$733.00	\$43,980.00	\$750.00	\$45,000.00	\$775.00	\$46,500.00	\$780.05	\$46,803.00
90	RPMS - TYPE 1	1860	EA	\$2.00	\$3,720.00	\$3.30	\$6,138.00	\$3.25	\$6,045.00	\$3.25	\$6,045.00	\$3.50	\$6,510.00	\$2.48	\$4,612.80
91	RPMS - TYPE 2	465	EA	\$3.00	\$1,395.00	\$3.90	\$1,813.50	\$3.80	\$1,767.00	\$3.75	\$1,743.75	\$4.00	\$1,860.00	\$3.74	\$1,739.10
92	ADJUST EXISTING MANHOLE TO GRADE	51	EA	\$700.00	\$35,700.00	\$500.00	\$25,500.00	\$713.00	\$36,363.00	\$450.00	\$22,950.00	\$470.00	\$23,970.00	\$796.08	\$40,600.08
93	ADJUST EXISTING VALVE BOX TO GRADE	47	EA	\$400.00	\$18,800.00	\$350.00	\$16,450.00	\$496.00	\$23,312.00	\$350.00	\$16,450.00	\$470.00	\$22,090.00	\$481.28	\$22,620.16
94	STREET TREES - IRON TO LINCOLN	12	EA	\$500.00	\$6,000.00	\$450.00	\$5,400.00	\$440.00	\$5,280.00	\$770.00	\$9,240.00	\$635.00	\$7,620.00	\$791.51	\$9,498.12
95	LAWN INSTALLATION WITH SOD	400	SY	\$15.00	\$6,000.00	\$8.60	\$3,440.00	\$8.30	\$3,320.00	\$7.00	\$2,800.00	\$29.00	\$11,600.00	\$11.90	\$4,760.00
96	LANDSCAPE RESTORTATION	1	LS	\$8,500.00	\$8,500.00	\$7,000.00	\$7,000.00	\$6,730.00	\$6,730.00	\$12,000.00	\$12,000.00	\$8,500.00	\$8,500.00	\$7,929.60	\$7,929.60
97	ROADSIDE RESTORATION	1	FA	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00
98	UNFORESEEN UTILITY RELOCATION	1	FA	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00
							\$0.00		\$0.00		\$0.00		\$0.00		\$0.00

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SCHEDULE B TOTAL				\$1,702,619.00	\$1,828,603.00	\$1,867,788.80	\$1,889,002.25	\$2,015,666.50	\$2,157,939.57
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CITY UTILITIES - SCHEDULE C - taxable															
99	8" WATERMAIN	160	LF	\$50.00	\$8,000.00	\$140.00	\$22,400.00	\$68.60	\$10,976.00	\$75.00	\$12,000.00	\$70.00	\$11,200.00	\$67.57	\$10,811.20
100	WATERMAIN CONNECTION SUPPORT	1	LS	\$20,000.00	\$20,000.00	\$1,400.00	\$1,400.00	\$5,000.00	\$5,000.00	\$9,500.00	\$9,500.00	\$3,700.00	\$3,700.00	\$5,656.64	\$5,656.64

SUBTOTAL CITY UTILITIES				\$28,000.00	\$23,800.00	\$15,976.00	\$21,500.00	\$14,900.00	\$16,467.84
SALES TAX SCHEDULE C				\$2,436.00	\$2,070.60	\$1,389.91	\$1,870.50	\$1,296.30	\$1,432.70
SCHEDULE C TOTAL				\$30,436.00	\$25,870.60	\$17,365.91	\$23,370.50	\$16,196.30	\$17,900.54

SCHEDULE A TOTAL				\$1,163,884.00	\$1,523,515.60	\$1,517,219.30	\$1,561,077.50	\$1,758,684.30	\$1,662,527.75
SCHEDULE B TOTAL				\$1,702,619.00	\$1,828,603.00	\$1,867,788.80	\$1,889,002.25	\$2,015,666.50	\$2,157,939.57
SCHEDULE C TOTAL				\$30,436.00	\$25,870.60	\$17,365.91	\$23,370.50	\$16,196.30	\$17,900.54
TOTAL				\$2,896,939.00	\$3,377,989.20	\$3,402,374.01	\$3,473,450.25	\$3,790,547.10	\$3,838,367.86

City of Bellingham ES-0466

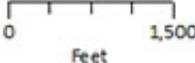


Alabama Street Corridor Improvements



Legend

-  Project Area
-  City Limits
-  Urban Growth Area

0 1,500
Feet