



**THE ECONOMIC IMPACT
OF THE CONSTRUCTION
OF THE KALISPELL BYPASS**

Executive Summary

This report is an economic impact analysis of the construction and economic activity created by the Kalispell Bypass. The authors are Ed Toavs, Montana Department of Transportation's Missoula District Administrator and Steve Peterson, Clinical Assistant Professor in Economics at the University of Idaho. The sponsor of the study is the Montana Department of Transportation (MDT).*

The Kalispell Bypass is an approximate \$135 million new highway built around the west side of the City of Kalispell in northwest Montana. Its primary purpose is to provide the public with a north-south alternate route around Kalispell. The primary north-south route in the Kalispell area is US 93 (Main Street) and is controlled by a series of signals to regulate traffic flow. The Kalispell Bypass is designed for free-flow traffic movement resulting in a more efficient and timely drive through the Kalispell area. The construction of this bypass was planned in conjunction with local city and county land-use planning for the west side bypass area and through the expansion of local business opportunities has led to substantial economic impacts for this area of Montana.

This project's economic impacts span a 16-year period from 2001 to 2016. The impacts have three major components: 1) Bypass (highway) construction expenditures 2) New business and residential construction along the bypass, and 3) New firm operations to the regional economy attributable to the bypass.

The Bypass is unique for Montana because it is a new highway as contrasted with upgrading an existing thoroughfare. The total nominal construction expenditures are \$135 million over the 16-year life of the project. The project also provided new access to land that expanded the business and residential construction and operations that largely would not have existed in the absence of the project. Specifically, we estimate that 65% of the business and residential construction is new monies to Flathead County (Kalispell) and attributable to the project. For business operations, we estimate that 33% of the new firm operations were new businesses and expenditures to Flathead County attributable to the project.

An economic impact assessment was conducted on the three components of the project and an input/output (IMPLAN) model of Flathead County was created to measure the impacts. The economic impacts include the multiplier effects (i.e. the direct impacts, indirect impacts, and induced impacts). The yearly results are presented in Figure 1. The average annual impacts are presented at the bottom of the table. Impacts are reported by several metrics: Sales (output) impacts are a gross measure and represent the total community transactions arising from the project (including the multiplier effects). Gross Regional Product is a subset of sales and represents a net contribution to the regional economy. The Total Compensation (payroll) column presents the wage impacts of the project and the Jobs (employment) column representing full- and part-time job creation from the project.

**This report represents the opinions of the authors and are not official positions of Montana Department of Transportation or University of Idaho (UI). This report originated from a project of Ed Toavs in the UI Executive Master of Business Administration (EMBA) program*

Total Economic Impacts of the Kalispell Bypass					
Includes the Direct, Indirect, and Induced Impacts					
Year	Sales	Gross Regional Product	Total Compensation	Jobs	
2001	\$ 14,378,811	\$ 7,744,354	\$ 5,248,334	142	
2002	\$ 16,914,825	\$ 9,735,274	\$ 6,144,643	167	
2003	\$ 19,377,917	\$ 11,259,768	\$ 6,852,909	196	
2004	\$ 35,044,696	\$ 19,997,608	\$ 12,491,165	352	
2005	\$ 35,485,531	\$ 20,924,030	\$ 12,467,775	360	
2006	\$ 56,246,904	\$ 32,532,821	\$ 19,931,604	567	
2007	\$ 94,027,074	\$ 53,813,710	\$ 33,235,369	931	
2008	\$ 57,757,634	\$ 35,495,830	\$ 19,908,103	594	
2009	\$ 72,950,860	\$ 43,796,319	\$ 25,422,274	744	
2010	\$ 122,962,785	\$ 70,391,646	\$ 43,614,577	1,205	
2011	\$ 65,151,918	\$ 40,203,306	\$ 22,413,136	671	
2012	\$ 85,390,069	\$ 51,034,899	\$ 29,851,287	867	
2013	\$ 103,336,272	\$ 61,042,019	\$ 36,444,456	1,045	
2014	\$ 114,116,352	\$ 67,672,592	\$ 40,122,145	1,157	
2015	\$ 138,198,243	\$ 81,722,793	\$ 48,155,506	1,391	
2016	\$ 179,356,137	\$ 104,711,283	\$ 63,265,871	1,775	
Avg.	\$ 75,668,502	\$ 44,504,891	\$ 26,598,072	760	

Figure 1 – Total Economic Impacts

Results: The average annual sales or gross economic impact of the construction of the Kalispell Bypass is over \$75 million annually over the life of the project (including the multiplier effects). Given the state and federal investment of about \$135 million, the average annual economic impact illustrates the importance of the project to local economic development. The average annual gross domestic product contribution from the project is over \$44.5 million per year.

The project also creates an average of 760 jobs annually and \$26.6 million in total annual compensation. Economic growth surrounding the Bypass corridor will continue in the future, leading to development opportunities that will expand due to the construction of the Bypass.

The economic impacts have increased over the life of the project from 142 jobs in 2001 to 1,775 jobs in 2016. The main drivers have been increases in the construction of new firms and businesses, business cumulative operations impacts, and additional Bypass construction. In the long-run, the construction impacts will end for the Bypass and they be substantially reduced for new business construction and expansion. However, the cumulative impacts of the business and firm operations will last into the long-run future.

Tax Impacts: The average annual tax impacts to state and local coffers are \$2 million in property taxes, \$2 million in excise taxes, and \$900k in income taxes for a total of nearly \$5 million in tax revenue, including the multiplier effects.

Secondary Effects: The Kalispell Bypass has provided benefits to the Flathead Valley which were not included in the economic analysis as impacts. These are important beneficial aspects of the Bypass project and are not quantifiable for reporting impacts but deserve recognition and are listed below.

- Improved safety and capacity for Kalispell’s urban transportation system.
- Montana DNRC land development for income generation designated to K-12 Montana schools.
- Provided a transportation system for access to Glacier High School.
- Improved access to Flathead Valley Community College (FVCC).
- Constructed a transportation network which allows new access to properties for development.
- Improves drainage and water quality for Kalispell’s west side residential and commercial areas.
- The Bypass corridor represents a new public utility corridor for enhancing utility capacity.
- The project constructed bike and walking paths that connect to the area’s existing shared-use path network resulting in safety enhancements for all roadway users.

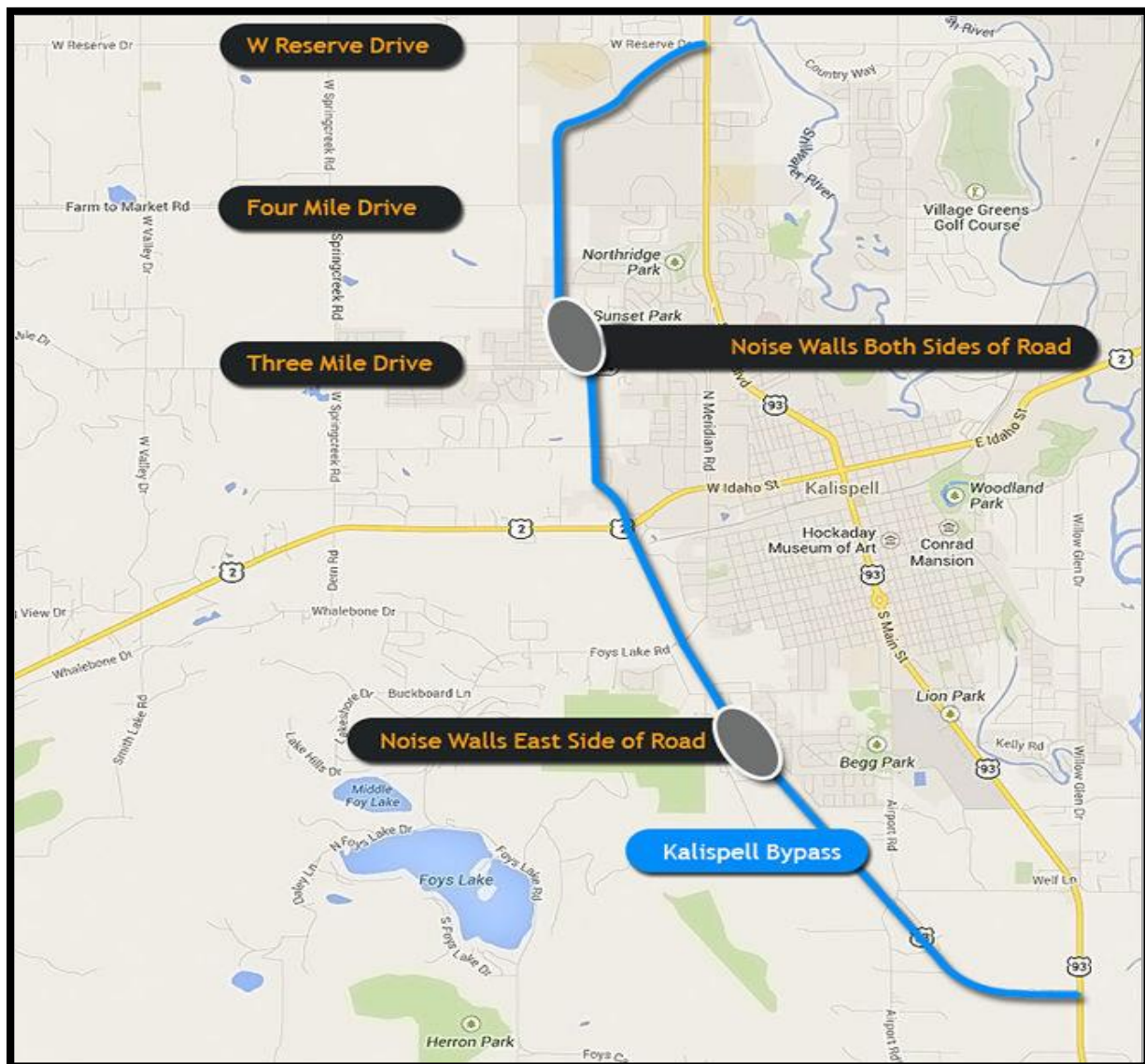


Figure 2 – Kalispell Bypass Route Location

On October 28, 2016, Montana's Governor, members of Montana's Congressional Delegation, Kalispell's Mayor, the Flathead County Commission, and many other elected officials gathered together in a public ceremony to open the Kalispell Bypass to the public. With the south half of the Bypass completed in 2010, this ribbon-cutting ceremony marked the opening of the north half of Montana's newest transportation network. The traveling public can now drive the 7-mile long Bypass from south edge of Kalispell to the north end of the city without driving through the historic downtown district.

Discussion of a Kalispell Bypass began in the late 1940s and culminated with an agreed-upon alignment for this new facility in 1994 through the Somers to Whitefish EIS. The Bypass route gives the traveling public the option of driving through the Kalispell area without the disruption caused by the series of signals on Main Street in downtown Kalispell. Figure 2 shows the location of the Kalispell Bypass in relation to Main Street which is also designated as US 93.

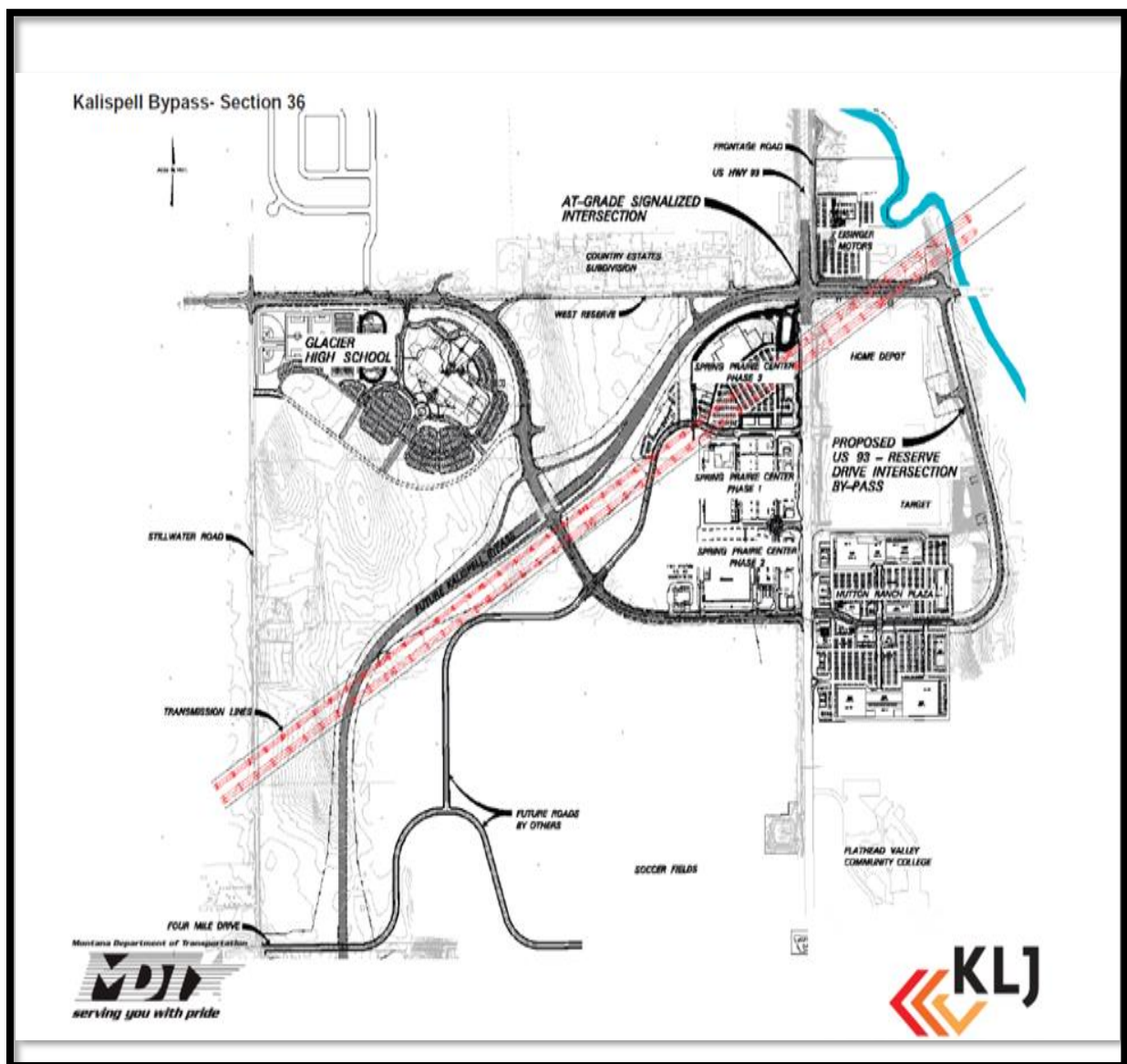


Figure 3 – Development Area – North End of the Bypass

Property acquisition and design activities began in the late 1990s through congressional funding secured for the project. In 2007, the first project for the Bypass system was completed and through additional federal and state highway funding, numerous construction projects segments were completed from 2009 through 2016. The project cost to date is approximately \$135 million in state and federal funds which were used to complete the design, acquire property, relocate utilities, and pay for the project's construction costs.

Construction of the Kalispell Bypass represents a cooperative effort between the City of Kalispell, Flathead County, the Federal Highway Administration, and MDT. The parties worked together to preserve the corridor from a land use standpoint which allowed the necessary property acquisition for the project's construction. The land use efforts extended to areas adjacent to the Bypass corridor and involved zoning and land development planning. This coordinated effort helped ensure that the new Bypass would blend into the urban environment from a transportation and land use perspective.

This also allowed the Bypass to act as a vehicle for improving the area's transportation system and assist with economic development. A key area for new development in the form of new business and residential construction was the northwest quadrant of Kalispell. Starting in 2001, this area began to develop and has continued to grow for the last 16 years. Figure 3 shows this area which includes the Section 36 school trust property in the care of the Montana DNRC.

While there are other properties along the Bypass corridor which have experienced development or are planning for development, the Section 36 area west of US 93 and the commercial-zoned area east of US 93 are the primary locations for new development attributed to the construction of the Kalispell Bypass. These are the locations of the majority of the economic impacts for business and residential construction and new firm business operations which can be attributed to the Bypass construction.

The City of Kalispell identified a list of all new businesses and residential properties which can be attributed to the Bypass construction which included the size of the development and the value of the construction. This list was provided to economists at the Montana Department of Labor and Industry (DLI) and they provided job creation totals and quarterly wage totals for the last four quarters on record.

Using the list of new construction properties attributable to the construction of the Bypass, the labor information for new firm operations, and the construction expenditures for the Bypass construction, all data inputs for the impact modeling were complete. These inputs yielded the results generated for this economic impact analysis.



Figure 4 – Bypass Interchange at US 2

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ABOUT THIS REPORT

This report is an economic impact analysis of the construction of the Kalispell Bypass in northwest Montana. The purpose of this report is to examine the economic and overall impact that this infrastructure investment has made on the City of Kalispell, Flathead County, and the northwest Montana region.

For developing the economic impacts discussed in this report, a Flathead County IMPLAN (IMpacts-for-PLANning) model was created for the project. The type of data gathered for the IMPLAN modeling was broken down into two categories. The first category is the design and construction costs of the Kalispell Bypass. The Montana Department of Transportation (MDT) has an extensive database which contains all costs the agency has administered for the development and construction of this project. This information is supplemented by high-level contracting bid information necessary for the development of labor, material, and overhead costs required for the modeling.

The second type of data gathered is private residential and construction data (land development and building construction) and operating expenditures (job creation) which can be attributed to the construction of the Kalispell Bypass. The agencies involved with the data collection are the City of Kalispell, Kalispell Chamber of Commerce, and the Montana Department of Labor. The data and the modeling results are subjective because it is difficult to place an exact number on the amount of development and the number jobs created due to the construction of the Kalispell Bypass. However, the results show a strong development growth and job creation connection because of the investment in constructing the Kalispell Bypass.

Overall, the results clearly show the benefits and importance of the construction of this piece of infrastructure in northwest Montana. This highway project has the distinction of providing short-term economic benefits during its period of development and construction and long-term economic and transportation benefits.

ABOUT THE AUTHORS

The research and development of this project was conducted by Ed Toavs, Missoula District Administrator for the Montana Department of Transportation and Steve Peterson, a Clinical Assistant Professor, Economics, College of Business and Economics, University of Idaho. The data gathering, construction costing inputs for the modeling, and report preparation was conducted by Mr. Toavs as part of his EMBA program work for the University of Idaho. Professor Peterson conducted the economic modeling for the project which includes the project construction impacts, attributable land development impacts, and job creation due to the Bypass construction

1.0 INTRODUCTION & PROJECT BACKGROUND

Since 1948, the discussion of building a truck bypass around Kalispell has been a periodic discussion for local politicians, the business community, and the general public. The topic started locally and grew into a regional and even state-wide discussion as far as a desired transportation project. The reason for this is because US 93 is the north-south major arterial for northwest Montana and it runs through downtown Kalispell as the city's main street. US 93 connects Missoula and Interstate 90 with Canada, and Kalispell is an important link in that pipeline.

Another key element to the Kalispell area and Flathead County is that this area is the most populated area in the state which does not have an Interstate system running in or around it. An Interstate system is instrumental in carrying some of the traffic of an area's transportation system, especially truck traffic. Flathead County contains two major arterials, US 2 and US 93, which handle the majority of the region's truck traffic. Downtown Kalispell has the distinction of having both US 2 and US 93 located in the center part of the city which includes the historic downtown area. It is difficult to develop effective commerce when these major arterials are located in the heart of the city and carry high volumes of traffic, including the majority of the region's truck traffic.

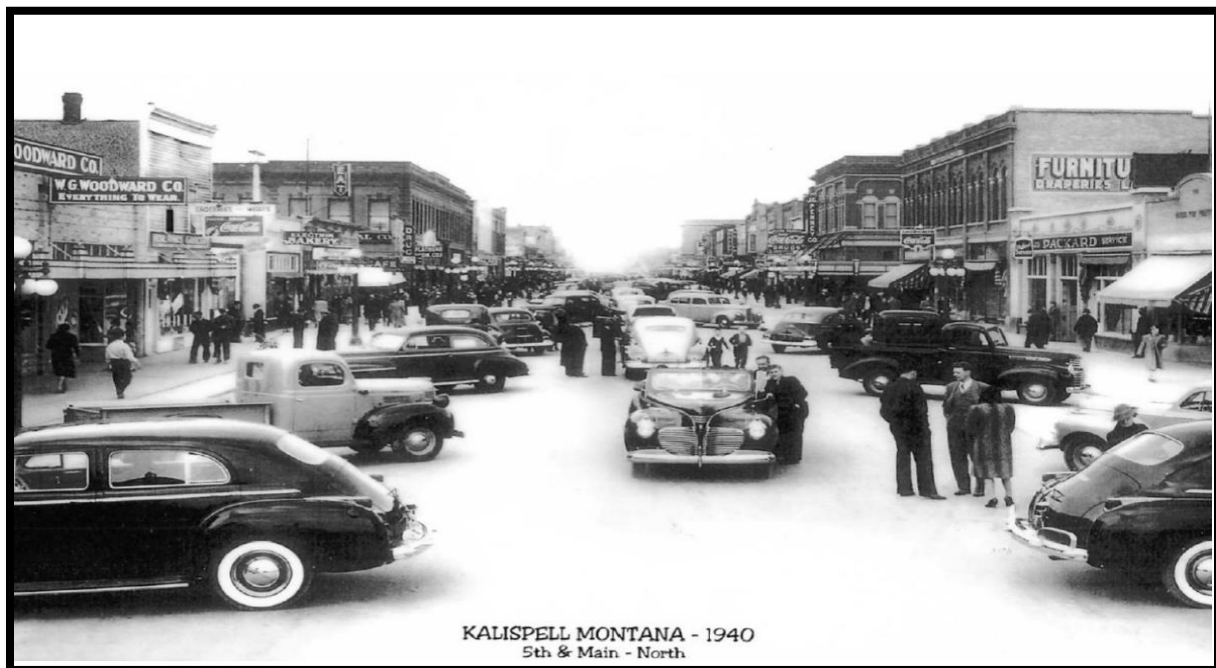


Figure 1.1 - Kalispell Main Street 1940

In the following decades since the first mention of a Kalispell Bypass in 1948, the population of Kalispell and Flathead County grew substantially by Montana standards and by the 1980s, the

traffic volumes on US 93 (Main Street) in the historic downtown business district did resemble the black and white photo (Figure 1.1) of what this area looked like in the 1940s.

Another issue for Flathead County and the City of Kalispell was an increase in traffic congestion around the Flathead County courthouse on the south end of Main Street. This congestion not only made vehicle travel difficult, but it was not friendly to the pedestrian traffic the courthouse and the entire county complex located on the south end of Main Street.



Figure 1.2 – Current Kalispell Main Street Traffic

During the 1980s, traffic congestion on Main Street was not the only area of concern for US 93 in the Flathead Valley area. Local officials and MDT staff became increasingly aware that the two-lane configuration of US 93 from Somers to Whitefish was inadequate for the future need of the region and solution was needed to address this concern. MDT was already engaged in reconstruction US 93 from Somers south towards Polson around Flathead Lake to improve travel conditions for the demand placed on the system by increased traffic volumes from the Missoula area, including I-90, to the Flathead Valley and beyond. It was decided to initiate an Environment Impact Statement (EIS) for US 93 from Somers to Whitefish in the late 1980s and early 1990s.

Kalispell Bypass

The purpose and need of this EIS was focused on traffic demands and traffic safety concerns. It also referenced the desire to provide an alternate route which would help alleviate the traffic congestion in the downtown area and provide a better alternative for truck traffic traveling in the Kalispell area. It was clear that an alternate route would serve two purposes. First, it would improve region's transportation network, and second, it would improve commerce conditions in the historic downtown area by encouraging more destination trips to the downtown area. The public would have a safe and functional system needed for improving the downtown's "just passing through" image and access to businesses would be made easier. This would be made possible by constructing an alternate route designed to better accommodate the trucks and cars which simply want to pass through the city. This was the formal beginning of the Kalispell Bypass.

The Somers to Whitefish EIS included the Kalispell Bypass as a part of the US 93 National Highway system. The debate during this time period was the location of the Bypass. One option was to improve Willow Glen Drive and the other option was a west-side bypass. Both routes are shown on the Kalispell map in Appendix C. After extensive public involvement and the analysis of each option from a planning and engineering perspective, the west-side bypass was the selected route for the Kalispell Bypass.

This route was finalized in 1994 with the Federal Highway Administration's Record of Decision (ROD). The next step was securing the necessary property for the project to be construction with limited funds available. Also, it was imperative that securing the property for the Bypass corridor would need to be coordinated with the City of Kalispell's land development planning, Flathead County's planning efforts, and the Montana Department of Natural Resources (DNRC) future planning goals.

Kalispell was growing in the 1990s and planning efforts were under way by all agencies listed above by the end of the decade. The alignment described in the EIS went through properties under the jurisdiction of the City of Kalispell, Flathead County, and DNRC. With these multiple jurisdictions involved, and the lines of jurisdiction changing between the city and the county as development occurred, coordination for project development was key for several reasons. First, MDT needed to understand what project requirements were needed throughout the corridor to satisfy jurisdictional requirements. An example of this was how to collect and treat storm water to satisfy city, county, and DRC requirements. Second, the land containing the north half of the Bypass route, in particular, was targeted for expansive commercial and residential development.

It was important to consider how the Bypass would interface with the local transportation network which included planning development expansion areas. The Somers to Whitefish EIS classified the Bypass as a controlled-access facility which means only the identified routes in the EIS would be connected to the Bypass as shown in the Figure 1.3.

These routes were the major traffic collectors in this area of the city and the county. They would be connected to the Bypass by interchanges which means that traffic could start on one end of the Bypass and not be required to stop until reaching the other end of the facility, similar to an Interstate configuration. This type of highway would be attractive for those who do not want to stop or be slowed down in downtown Kalspell including trucks.

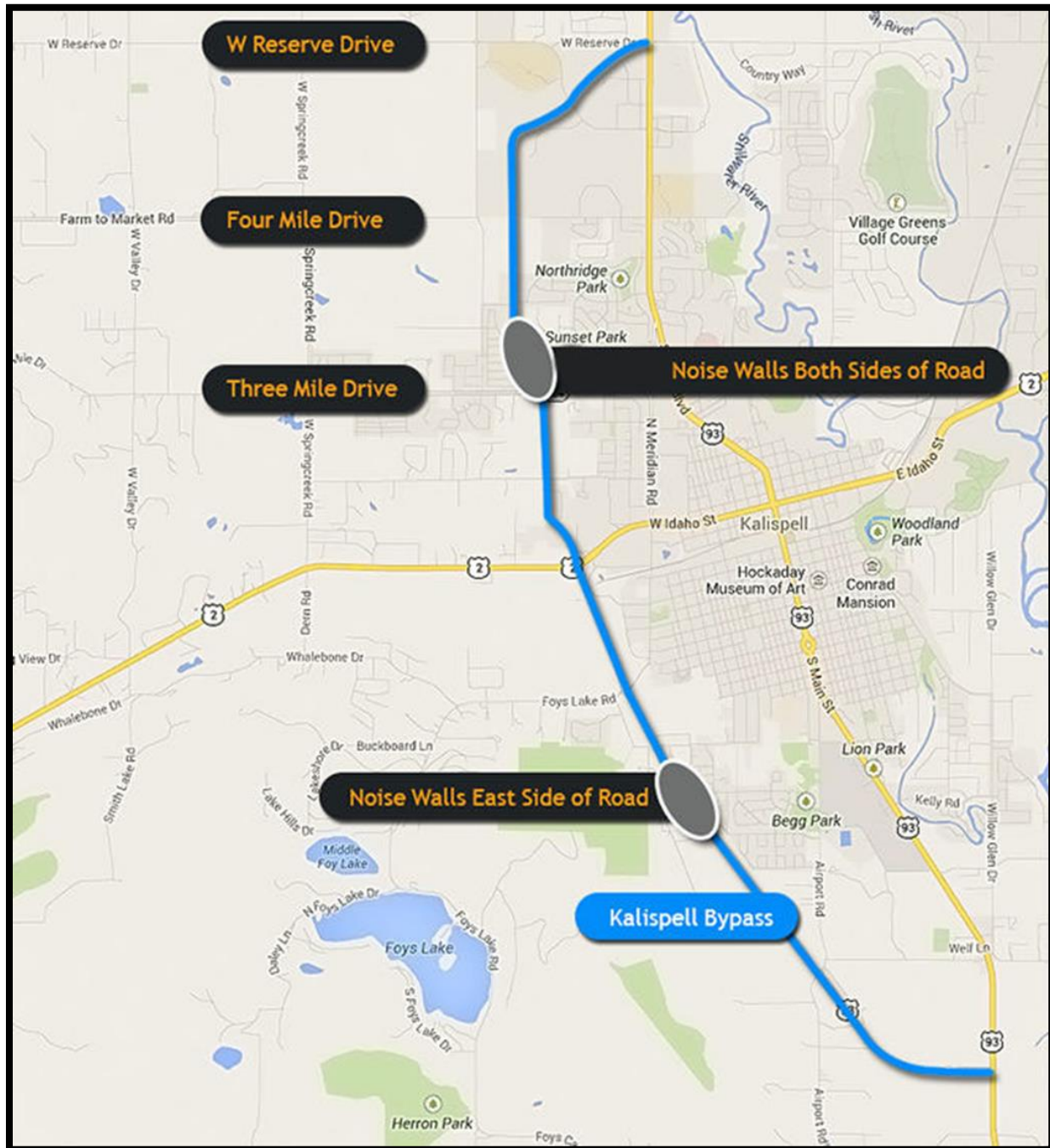


Figure 1.3 – Kalspell Bypass Route Location

Kalispell Bypass

From a development perspective, the Bypass was designed to attract trucks and some vehicular traffic from the area's transportation network including US 93 in the downtown area. This would improve the economic viability and transportation experience in the historic downtown section of Kalispell. This condition would also provide some improvements to the transportation experience around the Flathead County Courthouse. This section of US 93 is more formally known as the Kalispell Courthouse Couplet. Redevelopment of the downtown area was only half of the long-term economic benefit the Kalispell Bypass would provide. The second development benefit is that it would provide a robust transportation system on the west side of Kalispell to many areas of planned development where a system did not exist to allow the development to occur.

Since the construction of Montana's Interstate system, MDT has not constructed many new highways that add miles to the state network. But given the traffic congestion issues and the desire to assist in economic development through this project, MDT started securing property in the late 1990s to preserve this roadway corridor. In the 2000s, MDT passively acquired more property to secure the corridor's alignment and its potential property boundaries were recorded in the Flathead County Courthouse. Also, design was accelerated with the acquisition of congressional funding earmarks which were secured by members of Montana's congressional delegation.

During this initial design phase in the early to mid-2000s, MDT and its Stelling Engineers (currently KLJ Engineers), worked with Kalispell and Flathead County to better understand how the facility would interact and interface with the new developments. Many of these planned developments were active and construction was underway on residential and commercial development properties. The most significant area of planned and active development for the entire Bypass corridor was on the north end of the Bypass.

Figure 1.4 shows the north end of the Bypass and its surrounding area. The development area can generally be broken up into two locations. East of US 93 is property which was privately purchased and developed for commercial uses. Flathead Valley Community College (FVCC) is also located in this area and they also were planning for future expansion of their campus.

On the west side of US 93, was an area called Section 36 school trust land entrusted to DNRC. DNRC played a prominent role in the planning of the location of the Bypass on this north end and was instrumental in developing the property for commercial and residential use. This area was also the best location the Kalispell School District could find during this time period for the construction of Glacier High School. By 2005, some development was already complete east of US 93 as well as on the Section 36 DNRC property west of US 93, and more development projects was underway. At this point in time, Glacier High School's location and property design was in its final stages and ready for construction. However, the road network to access the facility was very poor at that time and not equipped to handle this new development.

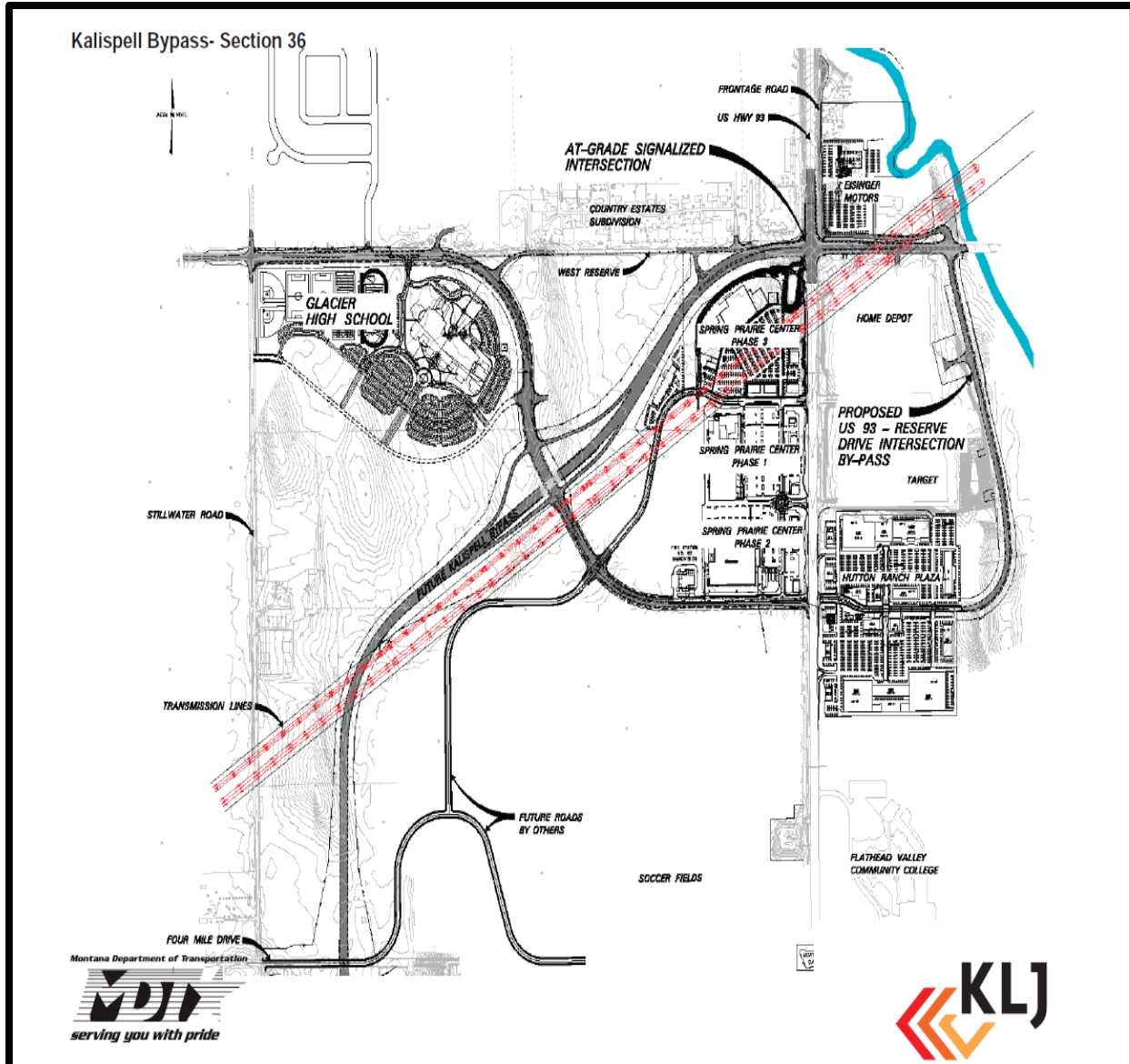


Figure 1.4 – North Terminus Area of the Bypass

In 2007, MDT has secured the property it needed to build the first Kalispell Bypass project segment which was called the Reserve Loop project. This facility would provide adequate access to the new high school, the existing newly developed properties, and the future properties planned for development. While this first project represented short-term economic development through the public funds used to construct the project, the developed areas around the Bypass represented long-term development to the area including new jobs to the region. This first project was completed just in time for the opening of the new high school in the summer of 2007. This was the first evidence of what the investment of public funds would bring to this region in terms of economic development due to the construction of the Kalispell Bypass.



Figure 1.5 – Glacier High School

The next milestone for the Kalispell Bypass occurred in 2009 through 2010 when MDT constructed an interim two-lane design for the south half of the Bypass. Property acquisition for this south half was completed in 2009 and construction began in late 2009. In November of 2010, the south half was opened to the public was celebrated by all those involved with this long project development process. The construction of the south half brought about a needed transportation addition to the region but didn't bring out the robust development the corridor was designed to enhance. The reasons for this were a slower local economy at the time which saw construction and development drop in activity levels. Also, there were fewer areas of development in the area of the Bypass's south half location compared to the north half.

Yet, the long-term economic benefits and transportation benefits would not be realized until the Bypass was fully connected. Without a fully connected Bypass, the area's transportation network would not see as significant of a truck reduction as would be expected with a completed Bypass. Also, the development property surrounding the Bypass on the north half still did not have a completed roadway network and did not have the traffic volumes it needed to attract customers because the system did not exist. The Bypass was dubbed "the half-pass"

and MDT, the City of Kalispell, and Flathead County were often asked for a completion date by the public.



Figure 1.6 – Foy's Lake Roundabout Construction in 2010

Starting in 2011, MDT started constructing more sections of the north half of the Kalispell Bypass system in addition to the Reserve Loop project which was completed in 2008. Property acquisition was completed for the north half of the Bypass in the spring of 2015 and construction of the final segment of the north half of the Bypass began in the fall of 2015. The contract for this final phase was awarded to LHC Inc. for nearly \$34 million, which is the largest contract in the history of MDT since its inception 100 years ago. The project was highly publicized and watched by the public local elected officials, state representatives, Montana's congressional delegation, and Montana's governor. The final project was opened to the public on October 28, 2016 with a ceremony which included Montana's governor, the majority of the state's congressional delegation, the Mayor of Kalispell, the Flathead County Commission, FHWA's Montana Division Administrator, and many other elected officials.

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In the fall of 2014, MDT announced it was planning to finally construct the last section which would complete the north half of the Kalispell Bypass and would provide for a fully connected west-side Bypass around Kalispell. When the announcement was made, many developers with property in the area of the north half of the Bypass restarted their development plans that had been put on hold since 2009 when the regional economy slowed. New developers when new projects for residential and commercial properties began corresponding with the City of Kalispell to start the process of plan approval leading to new construction and job creation.

The majority of the current development projects are in DNRC's Section 36 land trust area. There are also additional development plans for properties outside of the immediately adjacent areas surrounding the Kalispell Bypass corridor which are still attributable to the Bypass development. Growth is expected to continue as the population of Kalispell and Flathead County continue to grow is residents, businesses, and visitors to the area. Glacier National Park shattered the all-time annual attendance record at nearly 3 million visitors in 2016. These signs point to continued development for the greater Flathead Valley area and the Kalispell Bypass plays a significant part in transporting goods and services in the area and providing access to new businesses allowing business development and job growth.

The south half of the Bypass will require widening in the future to four lanes with interchanges to match the final build configuration of the north half and the committed design listed in the Somers to Whitefish EIS. For now, the Bypass is fully connected and the historic downtown area should see additional relief from traffic congestion and a reduction in truck traffic. The Bypass connection allows for discussion to begin on how the historic downtown district could look and function in the future with an emphasis on attracting destination traffic yet allowing for the movement of through traffic. This area is now ready for economic development opportunities in conjunction with the City of Kalispell's planning efforts and Flathead County's plans for an expanded campus on the south end of Main Street. These are indirect economic development benefits which the Kalispell Bypass has brought to this region of the state.



Figure 1.7 – Main Street and the Courthouse Couplet

2.0 ECONOMIC IMPACT DATA COLLECTION

The economic impact analysis of the Kalispell Bypass has components which require data collection and modeling. The first component is an explanation of the data inputs used to calculate and qualify the impacts the construction created. The second component is a discussion of data inputs used to calculate and quantify the land development and job creation which the Bypass either created or contributed to the creation as the Flathead Valley continues to grow and expand.

2.1 Kalispell Bypass Construction Data

After the Somers to Whitefish EIS was completed in 1994 and funding became available in the late 1990s, an official Federal-Aid project for the Kalispell Bypass was initiated. The project was broken up into a design phase, right-of-way phase, and the construction phase. It was also divided into two geographical segments; the segment north of US2 and the segment south of US 2 as given Montana's size of highway funding and earmarks in that era, it was anticipated the project would be constructed in phases.

The design phase was initiated for the entire corridor in the late 1990s and MDT contracted with the consulting firm of Stelling Engineers to begin the detailed work needed to design the project. Also, authorization was given for advanced acquisition of any right-of-way land parcels which would need to be secured in their entirety to preserve the corridor for the Bypass. The first acquisition occurred with a willing seller in 1998 and several more followed in the coming years. These expenditures represented the first public funds invested in the project and in the local economy.

During the early to mid-2000s, additional property was purchased for preserving the Bypass corridor and additional design work was completed. In 2006, the construction of Glacier High School began and MDT worked with DNRC, the City of Kalispell, Flathead County, and the school district to develop the Reserve Loop project. The project required design expenditures, right-of-way acquisition from DNRC through an easement, and utility relocation. In 2007 the construction of this contract was underway with a local contractor, LHC Inc., as the successful bidder. The majority of the work was completed prior to school starting in 2007 and the project was fully completed in 2008. This project represented the first construction project completed for the Bypass system and the first construction dollars invested from this project into the local economy.

In 2009, MDT and Stelling Engineers aggressively completed an interim two-lane design for the south half of the Bypass. With the completed design, property for the south half of the Bypass was quickly purchased and construction began in late 2009. The reason for the aggressive scheduling was additional Federal-Aid funding was made available through the ARRA Act and

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shovel-ready projects had to be identified quickly. Three construction contracts were executed to complete the south half of the Bypass from US 93 to US 2. These contracts were awarded to two local firms, Knife River and LHC Inc., and one out-of-state firm which was Ames Construction. This period of time for the Bypass project generated a great deal of funding which was invested in form of construction contracts, payment to landowners for property acquisition, payment to utility companies for relocation purposes, and indirect payment to the local and in-state material suppliers which supplied the necessary items to construct each contract.



Figure 2.1 – Section 36 With Old West Reserve Drive Built

Between 2011 and 2015, several construction contracts for the north half of the Bypass were executed with two local contractors, Schellinger Construction and LHC Inc. In addition the final right-of-way property purchases were made to secure the corridor. Utility relocation was completed and additional design expenses incurred for completion of all project design work for the north half of the Bypass. In the summer of 2015, the final contract necessary to complete the north half of the Bypass was awarded to LHC Inc. for \$34 million. The project was substantially completed in the fall of 2016 with only minor work remaining in 2017. This

contract completes in the public funded investment made to this project and into the local and regional economy.



Figure 2.2 – Bypass Construction South of Three Mile Drive

Appendix A contains a detailed breakout of all costs associated with the Kalispell project to date. It should be noted at some point in the future, the final four-lane configuration for the south half of the Bypass must be completed. The breakout includes all Federal-Aid contracts executed by year and dollar amount. It also provides a breakout of costs by phases which includes design, utility, right-of-way, and construction. Some individual project segments were tied together with other segments to comprise one contract. This was done to minimize overhead costs associated with individual contracts and capitalize on the economy of scale opportunities when funding allowed.

Appendix A also contains a detailed breakdown of the in-state material, out-of-state material, and labor costs for each contract. These costs are necessary for the modeling to determine the economic impacts each construction contract to the local and regional economy. Most of MDT's project development costs are easy to track and state because the cost paid are for a singular purpose. The payment made to a utility company or payment for property costs which do not need to be broken down further. Construction contracting is more complex and

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subjective in terms of tracking costs and certain assumptions were made in developing the data inputs for the impact modeling.

The first assumption is based on the fact that MDT does not have detailed knowledge of each contractor's bid documents unless a claim is filed by the contractor against the contract. Even in that situation, the quality of documentation to determine costs like materials, equipment, and labor vary with each contracting company and some companies elect to put limited detailed information into their bid documents. MDT only records the bid prices of its contracted items which do not have cost breakdowns of labor, equipment, and material.

The second assumption used to generate the labor data was the calculation of a uniform labor percentage by contract for all contracts used to construct the Bypass. Acquisition of the labor costs for each contract, which includes subcontract labor costs and supplier labor costs, is virtually impossible. The reason for this is that subcontracts can be written on a unit cost basis with no breakout for labor, equipment, or material. Also, supplier agreements are usually written on a quantity basis either by unit or total lump sum and labor is impossible to track. At times, trucking contracts for material hauling are also written the forms which do not break out labor costs.

For this second assumption, Don Brummel from LHC Inc., offered to provide his company's internal costing data from the last contract LHC was awarded, US 2 to Reserve Loop, and from the Airport Rd to Foy's & Foy's to US 2 contract awarded to Ames Construction in 2009. When Ames was awarded the subject contract in 2009, Mr. Brummel was the company's regional construction manager and instrumental with putting together the company's bid. After the completion of that contract in 2010, Mr. Brummel decided to relocate to the Flathead Valley and landed a position with LHC Inc. as a project manager. Mr. Brummel's experience with highway construction, contract bidding, and estimation is extensive and the information he provided for this project is as accurate as an estimation as possible for an MDT Federal-Aid contract.

Another valuable aspect of Mr. Brummel's information is it generally represents LHC's bidding information throughout the numerous contracts they were awarded for the Kalispell Bypass contract. Between the Ames contract and numerous LHC contracts awarded for construction of various sections of the Bypass, Mr. Brummel's numbers are representative of 75% of the project contracts. Bidding was very competitive on all projects in the Bypass corridor which further validates Mr. Brummel's bidding numbers as a very accurate representation of labor and material costs. By using his material cost values and MDT's Site Manager Contractor Payment System, accurate assumptions were made, by contract, which bid items represented in-state produced material versus out-of-state produced material.

As shown in Appendix A, the two contracts listed above were broken out by prime and subcontracting costs for labor, equipment, material, and overhead. A third assumption used in

the calculations was given the high number of subcontractors used on these two contracts as well as all the contracts on the Bypass, the same percentage used to determine the prime contractor's percentages were applied to the subcontracted work as well. Using this assumption, percentages for both contracts were calculated for labor, equipment, material, and overhead. Looking at the results, the percentage for labor and overhead were similar with some variability in the percentages of equipment and material.

Given the competitive contracting atmosphere for MDT contracting in the Flathead Valley, these results are not surprising as equipment and material should have increased variability. The reason for this is the variety of highway contracts MDT bids for contracting work which require different types and quantities of materials incorporated in the final product all involving the use of a vast array of construction equipment. An example on the Kalispell Bypass is the US 2 Widening project was a project which required the extensive use of roadbed material, gravel, and asphalt to construct the project. By contrast, the Three Mile Drive Bridge contract was primarily a contract to build a new bridge with some road work. This helps explain the variability in material and equipment percentages in the Bypass corridor.



Figure 2.3 – Construction of the Old West Reserve Bridge by Glacier High School

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The fourth assumption was to average the percentage results from both contracts and use this averaged percentage for all contracts in the Bypass corridor. After review of the contracts awarded in the Bypass corridor and the associated scope of work each contract required, the percentages seem reasonable for MDT contracting. For the purposes of the economic modeling performed for this study, the labor rate percentage used was the labor rate plus the overhead rate. The equipment percentage was not used in the economic modeling as equipment used for construction is assumed to be used when and where work is available in the state and not an economic impact. The costs required to rent, own or service the equipment is already included in the overhead rate percentage used in the labor percentage.

Appendix A also includes the breakout of in-state versus out-of-state material origin. Each contract was reviewed to determine which contract bid items were out-of-state material based items. The fifth assumption was all costs in each bid item which was classified as an out-of-state material bid item were counted as out-of-state material costs. All other bid items in each contract were assumed to be in-state material bid items. Determining which bid items were out-of-state material bid items was not difficult as typically only certain bridge components, guardrail materials, and steel-based bid items were out-of-state material bid items.

The material breakout by item is also included in Appendix A and is an extensive list of the out-of-state bid items. The sixth assumption used is there are no bid items which combine in-state material and out-of-state material costs which would require to be split for this analysis. This is a relatively safe assumption because MDT's contract bid items and bidding requirements are specific and detailed. This means all costs associated with payment of a bid item is included in that bid item and the cost of the item in question is not spread out over multiple bid items. Also, it is very rare to find a contract bid item which mixes out-of-state material costs and in-state material costs in that item.

With these assumptions, the Master Cost Sheet in Appendix A shows the labor, in-state material, and out-of-state material values used for each contract and the total values for the Kalispell Bypass corridor to date. The out-of-state material values are 12% of the total estimated material values for the corridor with the in-state material values comprising the remaining 88% of all material costs used to construct the Bypass. These percentages for the Bypass work completed seem logical as the majority of the work was performed by local contractors, in-state subcontractors, and local material suppliers. The earthwork used to build the numerous segments was local as was the gravel, asphalt rock, and concrete. Asphalt oil was an in-state supplier and most concrete products were produce locally or in-state. Most of the pipes used on the project were also produced locally or in-state.

When comparing the total construction cost to the total material cost for the Kalispell Bypass on the Master Cost Sheet in Appendix A, we see of the over \$82 million spent on construction, \$37 million was associated with material costs. Of this \$37 million, it should be noted that we can assume there are built-in labor and overhead labor costs that are too subjective to quantify

beyond what this study has calculated. Since both material costs and labor costs are introduced into the modeling of the construction impacts, this statement should be treated as simply an editorial note attempting to explain the complexity in calculating exact data for modeling exercises.



Figure 2.4 – Retaining Wall Construction by Empire Estates

Another note about the cost totals shown on the Master Cost Sheet is the utility cost values are not treated as contracts with material, labor, and equipment breakdowns for this study. Most utility companies involved with the Bypass utility relocations are either local or have local offices in the Flathead Valley. Due to the complex nature of these types of contracts, it was not practical to calculate labor costs since 2006 to present day. However, the work required to relocate the utilities and associated cost is an economic impact and included in the modeling. Design costs are considering a professional service and calculating labor costs for professional services are not needed for this exercise. The totals were used for the modeling and all professional services were performed by in-state consultant services.

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Right-of-Way costs are land acquisitions in which total appraised or agreed values are paid to the landowner. The majority of landowners were Flathead County residents and many reinvested in property in Flathead County. Because Kalispell is a high cost of living area for Montana and the Bypass is located in a developing part of this urban area, the right-of-way costs were extremely high as a percentage of the total project cost. With a total project cost of over \$135 million and a right-of-way cost of over \$43 million, property acquisition accounted for nearly a third of the project's cost. The public funds invested in acquiring these properties represent an investment in the local economy primarily from the standpoint of public use. The investment also provides compensation to landowners which can and in many cases is reinvested in the local and regional economy.

Finally, the project cost to date of over \$135 million invested in the Flathead Valley over the last 20 years is as significant of an investment in terms of a transportation project as any MDT has made in the state since the construction of the Interstate system. The public funds invested in the construction of this new corridor have had periodic short-term monetary impacts to the Flathead Valley resulting in a long-term economic benefit to this community. The construction data used for the economic modeling is as impressive and detailed as any transportation project MDT has constructed since the construction of the Interstate.

2.2 Private Construction & Operating Expenditure Data

Flathead County, including the city of Kalispell, is an area of the state of Montana which has seen growth since the EIS was completed for the Kalispell Bypass. This growth in population spurred increased traffic, business growth, and residential and commercial development. When the Somers to Whitefish EIS was completed in 1994, there was a concerted effort from local officials, state representatives, and Montana's congressional delegation to earmark funding for the Bypass to secure as much property for the project as possible as soon as possible.

Aside from the idea of securing property for the project, the second reason for early property acquisition was to better define the development in the suburban area surrounding the Bypass location on the west side of Kalispell. Starting in the early 2000s, this became an important aspect of the Bypass alignment location as development was growing and construction was occurring for both residential and commercial properties in the area of the Bypass, especially north of US 2. In recent years, the City of Kalispell published their 2015 Construction, Subdivision and Annexation Report which shows increases in building permits and construction costs in the early to mid-2000s.

As with the national and global economy, these indicators decreased by the end of the decade but have slowly built back up to higher levels. The report also states that the completion of the Kalispell Bypass will create the opportunity for the completion of DNRC's School Trust Section

36 property on the north end of the corridor. This location was a location where significant development occurred prior to the economic recession and is a target area for DNRC and the City of Kalispell to see the development plans completed for this area of Kalispell. As of the writing of this study, additional commercial and residential development is occurring and more development plans are underway with both DNRC and the City of Kalispell.



Figure 2.5 – Development in Section 36 – Spring Prairie Development

Section 36 is also known as the Spring Prairie Trust Lands Development as a visual depiction is included in this report in Appendix C. The picture shows the majority of this area is developed with commercial businesses and these businesses provided employment opportunities for Flathead residents. Starting with the completion of the south half of the Bypass, several developers approached the City of Kalispell and MDT questioning when the Bypass would be built on the north half. Once they had an idea of a construction timeframe, these developers would then start their development plans and began construction on their projects.

While the majority of the development was located in the north end of the Bypass corridor, there were other development areas as well. The first step in determining which developments and properties can be attributed to the construction of the Bypass was starting with the data and information listed in the 2015 Construction, Subdivision, and Annexation Report. This report graphs the number of commercial and residential developments as well as construction

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dollars spent in each year from 2006 to 2015. It also provides the names, locations, development size, and what type of commercial development occurred in each year. The report contains other important information which can be used to determine if a development could be credited in part or solely due to the construction of the Bypass.

To ensure the most accurate and justifiable estimate of the range of developments which can be credited to the Bypass construction, this study deferred to the City of Kalispell to provide the list of developments. The city's planning staff under the direction of the Planning Director Tom Jentz compiled the list of commercial and residential properties which can be attributed to the development and construction of the Bypass. The compiled list is located in Appendix B and are properties that were taken from the master list in the city's 2015 report and additional properties which have developed since the 2015 report was published.

Mr. Jentz has been the city's planning director since the formal inception of the Bypass and he and his staff are the most qualified to make this determination. Mr. Jentz also provided information on future developments which are in the planning stage and can be attributed to Bypass construction. The economic impacts calculated by this study do not include future planned development. It is evident from discussions with Mr. Jentz and DNRC's Kalispell planner, Steve Lorch, future development will occur because of the Bypass completion both on the Section 36 area and outside of this DNRC section of land. As an example, if this analysis were delayed by one year, the list of development properties in Appendix B would be expanded.

During the research and data collection phases of this project, discussions with Mr. Jentz led to the conclusion the expansion projects Flathead Valley Community College (FVCC) has completed in the last 15 years or is currently planning will not be included in the input data for the land development impacts. FVCC is located east of US 93 opposite of the south end of Spring Prairie Trust Land Development and was already established prior to the firm establishment of the Bypass corridor. The campus does benefit from the area's improved transportation system with the completion of the north end of the Bypass and the extension of Four Mile Drive from US 93 to the Bypass. Appendix C contains location maps of the Bypass and its surrounding area.

Appendix B contains information from DNRC detailed the income the agency generates from its development agreements for the Spring Prairie Trust Land Development. This section of land is said to generate more income from property leases and easements than any other DNRC property in Montana. The generated income is designated for K-12 Montana schools. Mr. Lorch noted that several of the remaining areas of undeveloped property on the Spring Prairie Trust have development opportunities in progress. With the Kalispell Bypass fully connected, the expectation is the entire Spring Prairie Trust will be developed in the near future.



Figure 2.6 – Bloomstone Development by Four Mile Drive

The land development list from Mr. Jentz and the Spring Prairie Trust list from Mr. Lorch both depicted dollar values, development size, and location and represent the land development list used for the impact modeling. The next step was to use the land development list generated by the City of Kalispell to determine job creation values. After conferring with Joe Unterreiner who is the President of the Kalispell Chamber of Commerce, he suggested the labor data could be acquired from the Montana Department of Labor and Industry (DLI).

DLI assigned Matt Betcher, who is a special project's economist, and he was able to use the development list to create a list of total jobs created and total wages earned for the most four quarters on record. He could not provide a list of jobs and wages per business due to confidentiality agreements. This exercise also produced the types of businesses in terms of employment which were listed under development properties. With the DLI job creation data, impact modeling could proceed with the land development and job creation segment.

3.0 Economic Impact Methodology

A Flathead County IMPLAN (IMpacts-for-PLANning) model was created for the project. IMPLAN is the most widely utilized and employed input/output software and data used by regional economists for impact modeling. The dataset year selected was 2011 and chosen because the project duration range was considerable, between 2001 and 2016. The mid-year was chosen to minimize the effects of structural changes in the economy on the economic impacts. For each economic impact analysis, the input expenditures were adjusted for inflation using the GDP deflator. The outputs of the modeling were all expressed in constant 2016 dollar values.

Flathead County was chosen as the targeted geographic region for two reasons: 1) It is a reasonable functional economic region. 2) The primary stakeholders (i.e. community, business, and governmental leaders) reside in the county.

The project consisted of three separate analyses:

- 1) Economic impact assessment on the annual construction expenditures of the Bypass
- 2) Economic impact assessment on the private business and residential construction
- 3) Operating expenditures of the new firm creation from the Bypass operations

3.1 Bypass Construction Expenditures

The expenditure data consisted of design costs, utility relocation costs, right-of-way costs, and construction costs. The design costs were the engineering, planning, and architecture costs of the highway Bypass. The utility relocation costs were included in the construction economic impacts. The right-of-way cost consists of payments to landowners for the acquisition of their property.

The construction economic impacts were estimated with the construction sectors of the IMPLAN model. The design costs were estimated using the engineering and architecture service sector and other professional service sectors of the IMPLAN model. The right-of-way impacts were modeled as an increase in household income in the IMPLAN model.

The costs were broken into the following categories: Labor cost, in-state material costs, and out-of-state material cost. Only the labor and in-state material costs were included in the analysis. Out-of-state purchases were excluded from the economic impact analysis. There were six years of highway Bypass construction activity which are 2007, 2010, 2012, 2013, 2014, and 2016. It is understood that some of that activity spilled out into surrounding years. The costs and expenditures are outlined in detailed tables in Appendix A.

3.2 Private Residential & Commercial Construction - Along Bypass

The Bypass opened up considerable investment opportunities for commercial and residential investment. The investment stream begins in 2001 and is calculated through 2016. The early

firm construction was in anticipation of the Bypass highway project. Firm construction accelerated as the Bypass project progressed. A complete list of firms is provided in Appendix B of this report.

Total cumulative construction activity measured in square feet was 1,970,785 and valued at approximately \$139,561,693 in nominal dollars. Firm construction valuation was provided for each year from 2001 to 2016 and was employed as an input to estimate the annual economic impacts of business firm and residential construction. Discussions with key governmental and business stakeholders was undertaken to estimate the portion of the new corridor firm construction that represent new monies to the Kalispell regional economy and would not have relocated to other regions of the community.

We estimate that approximately 65% (roughly 2/3rds) was new money to the community while about 1/3rd was substitutable and not included in the economic impact calculations. Substitutable construction represents activity that would have located elsewhere in Kalispell in the absence of the Bypass and would have occurred in any case. The economic impacts are solely based on estimated construction that would not have occurred if the Bypass had not been constructed.

3.3 Operating Expenditures of New Firms – From Bypass Operations

Estimated direct firm employment by the corridor firms was acquired from government data sources (MT DLI) and categorized into three major firm type categories: retail trade (1,477 jobs), eating and drinking (489 jobs), and services (490 jobs). Governmental disclosure restrictions limit the release of any greater firm or sector detail. Thus, this data was mapped to the listing of individual firm construction activity in the corridor to provide a greater input data accuracy for the IMPLAN model. The direct operating expenditures were estimated using the IMPLAN model based on estimated direct employment.

The operations impacts of new business and firms was estimated using the retail trade, eating and drinking, and service sectors of the IMPLAN model. The retail trade sector was margined to eliminate the out-of-region cost of goods sold from the impact assessments with firm construction. Discussions with key governmental and business stakeholders was undertaken to estimate the portion of the new corridor firm sales that represent new monies to the Kalispell regional economy (Flathead County) and are not substitutable with other local businesses.

From these discussions, it was assumed that 33% of the total represented new monies to the local economy and counted in the calculation of the economic impacts. Approximately 67% was substitutable, either by existing business expansion or by new business construction elsewhere in Kalispell. This is likely a conservative estimate that may understate the overall economic impacts.

Some firms began operating in 2001 following their building's construction completion. New firms were added each year through 2016. The direct employment measure of IMPLAN inputs

were allocated to each year based on the valuation of the construction completed in that year. The employment impacts are cumulative unlike the construction impacts. Once a firm opens, its operations continue into the future and thus the economic impacts increase each year as new firms open and are added to the total.

3.4 Methodology: Economic Base Assessment

This analysis is founded on economic base theory. A local or regional economy has two types of industries: base industries and nonbase industries. Any economic activity that brings money into the local economy from the outside is considered a base industry, such as federal highway dollars. A base industry is sometimes identified as an export industry, which is defined as any economic activity that brings new monies into the community from outside.

For example, base industries can include high-technology companies, medical services, retail trade services, federal government operations, as well as other manufacturing and service firms. Firms providing services to individuals living outside the region's trade center, such as medical and legal services, are included in the region's base. Payments from state and federal governments (including Social Security, Medicare, university funding, and welfare payments) are sources of outside income to businesses and residents. These are counted as part of the economic base.

Nonbase industries are defined as economic activity within a region that support local consumers and businesses within the base sector. They re-circulate incomes generated within the region from the base industries. Such activities include shopping malls that serve the local population, business and personal services consumed locally, medical services consumed locally, and local construction contracts. Nonbase industries support the base industries.

Base industries are sometimes confused with nonbase industries. For example some county economies have large retail trade sectors that produce a paradox: they employ a substantial percentage of the workforce but actually contribute little economic impacts because most of the retail sales are local. They bring little new money into the community. Thus, it appears from the size effect that the retail trade sector contributes a large amount of employment and earnings to the economy.

In reality, most of this employment and earning activity is allocated or attributed to other local "export" industries that bring revenues into the community from outside sales. From a "size" perspective, the retail trade sector appears large. However, from an economic base perspective, which determines the economic "drivers" of the economy, the retail trade sector is actually much smaller. Only the retail trade activities serving visitors from outside the area can be counted as economic base activity and employment.

Economic base analysis is important for identifying the vital export industries of a region. Nonbase industries, on the other hand, are important for keeping money within a region and stimulating local economic activity for residents. In this respect, nonbase industries can

function in the same manner as an export industry. For example, suppose an Idaho patient elects surgery at a local hospital instead of traveling to a medical center in Spokane, Washington.

The substitution of local services for an imported service represents an increase in the demand for local business services. Keeping income in the community enhances the multiplier effects of the export industries. The overall effect of import substitution can be viewed as an analogous increase in demand for an export industry. Our economic models are founded on economic base theory.

3.5 Methodology: Defining and Explaining Economic Impacts

Economic impacts measure the magnitude or importance of the expenditures of basic (export) industries. Our economic model estimates multipliers for each industrial and service sector. Suppose you have a (hypothetical) output (sales) multiplier of 1.25. Every dollar of direct expenditures creates \$1.25 dollars of total new spending in the community economy. Impacts are apportioned into two levels. The first level is the direct impact of the highway construction expenditures on the Flathead County economy – the jobs, payroll and earnings, value-added, and sales that are directly created by the construction as an export or basic business.

The second is comprised of two parts: a) the impacts on other regional businesses that provide goods or services to the construction firms - the indirect impacts - and b) the effect of employee and related consumer spending on the economy - the induced impacts. The indirect and induced impacts are the so-called “ripple” or multiplier effects of the construction in the economy. The multiplier or ripple effects are driven by the exports of an economy. Exports, the new money coming into an economy, set off a web of transactions as each business seeks to fulfill the demands of their customers. A construction project’s impact upon the economy is thus comprised of the magnitude of the multiplier(s) and the magnitude of the exports. The sum of the direct, indirect, and induced effects measures the total impact of an industry to an economy.

3.6 Economic Model Multipliers

The average construction sales (output) multiplier was 1.64. For every \$1 of base construction expenditures, \$1.64 of sales (output) was created in Flathead County. The average design and engineering multiplier was 1.77.

The average business and firm construction multiplier was 1.63. For the operations impacts, the average retail trade multiplier was 1.55, average services multiplier 1.57, and average eating and drinking multiplier was 1.57.

These multiplier are within the standard range for an economy of this size and integration.

4.0 Results

The economic impacts are reported in this section of the report. These impacts include the direct impacts of the Bypass construction and related expenditures and the backward linkages of that spending as it circulates throughout the economy, i.e. the multiplier effects. It also includes the impacts of consumer spending relating to this economic activity. There are several measures of economic impacts that are overlapping.

Sales or output is the broadest measure of impacts and represents the gross activity created in the regional economy by the Bypass. Sales is the summation of all market transactions related to the Bypass. Gross Regional Product is a net measure of the impacts of the Bypass by removing any double counting of economic activity. Total Compensation includes wages and salaries and fringe benefits. It is a subset of Gross Regional Product. Taxes include excise taxes, property taxes, and income taxes. All of these include the multiplier effects.

The following economic model outputs are reported: Sales Transactions – reflects the total transactions (gross) from all sources in dollars by direct, indirect, and induced economic activity (i.e. including the multiplier effects).

- 1) Gross Regional Product (value-added) is the net economic impact of the Bypass on the regional economy. It is a subset of sales (output) (including the multiplier effects)
- 2) Earnings (payroll) – includes wage, salary, and other income payments including fringe benefits to workers (including the multiplier effects). It is a subset of Gross Regional Product.
- 3) Employment – represents the total employment resulting from economic activity (including the multiplier effects).
- 4) Taxes – includes all taxes including excise taxes, personal income taxes, and corporate income taxes at the state level. At the local level they primarily include property taxes. These tax impacts include the multiplier effects.
- 5) The primary indicators of economic activity most relevant are earnings (payroll), jobs, and taxes.

4.1 Grand Total Economic Impacts

Figure 4.1 presents the total economic impacts from a summation all three sources: highway Bypass construction, business and residential construction in the Bypass corridor, and new firm business operations. Each of these impacts are reported separately in this section following the summation tables. The results include the multiplier effects (i.e. the direct, indirect, and induced impacts). All impacts are reported in constant 2016 dollars. Sales transactions/output (as noted earlier) are the broadest measure of economic impacts and represent total gross economic activity arising from the project. Gross Regional Product is a net measure of

economic activity (similar to gross domestic product) and is a subset of Sales transactions. Total Compensation includes all fringe benefits and is a subset of Gross Regional Product.

The average annual impacts are approximately \$75.7 million in Sales transactions, \$44.5 million in Gross Regional Product, \$26.6 million in Total Compensation and 760 annual jobs.

There is considerable variability in the impacts year-to-year as can be seen in Figure 4.1. For example the jobs impacts range from 142 jobs in 2001 to 1,775 jobs in 2016. Sales range from \$14.4 million in 2001 to \$179.4 million in 2016.

Total Economic Impacts of the Kalispell Bypass				
Includes the Direct, Indirect, and Induced Impacts				
Year	Sales	Gross Regional Product	Total Compensation	Jobs
2001	\$ 14,378,811	\$ 7,744,354	\$ 5,248,334	142
2002	\$ 16,914,825	\$ 9,735,274	\$ 6,144,643	167
2003	\$ 19,377,917	\$ 11,259,768	\$ 6,852,909	196
2004	\$ 35,044,696	\$ 19,997,608	\$ 12,491,165	352
2005	\$ 35,485,531	\$ 20,924,030	\$ 12,467,775	360
2006	\$ 56,246,904	\$ 32,532,821	\$ 19,931,604	567
2007	\$ 94,027,074	\$ 53,813,710	\$ 33,235,369	931
2008	\$ 57,757,634	\$ 35,495,830	\$ 19,908,103	594
2009	\$ 72,950,860	\$ 43,796,319	\$ 25,422,274	744
2010	\$ 122,962,785	\$ 70,391,646	\$ 43,614,577	1,205
2011	\$ 65,151,918	\$ 40,203,306	\$ 22,413,136	671
2012	\$ 85,390,069	\$ 51,034,899	\$ 29,851,287	867
2013	\$ 103,336,272	\$ 61,042,019	\$ 36,444,456	1,045
2014	\$ 114,116,352	\$ 67,672,592	\$ 40,122,145	1,157
2015	\$ 138,198,243	\$ 81,722,793	\$ 48,155,506	1,391
2016	\$ 179,356,137	\$ 104,711,283	\$ 63,265,871	1,775
Avg.	\$ 75,668,502	\$ 44,504,891	\$ 26,598,072	760

Figure 4.1 - Total Economic Impacts

Figure 4.2 includes the total estimated tax economic impacts by year. Taxes include local level property taxes, and excise and income taxes at the state level. IMPLAN has a tax module that estimates taxes impacts based on the economic activity that creates them. These tax impacts include the multiplier effects. The average annual tax revenues generated by the project were \$2.0 million in property taxes, \$2.0 million in excise taxes, and \$0.9 million in income taxes. Total average annual taxes are \$5.0 million per year.

The tax estimations should be interpreted carefully. The tax module estimates the taxes from the increase in base economic activity created by the Bypass. It represents a proportional change in taxes in long-run equilibrium. It is not a tax forecast model however and should not be used for short-term tax forecasts.

Total Estimated Annual Tax Revenues				
Includes the Direct, Indirect, and Induced Impacts				
Year	Property	Excise	Income	Total
2001	\$ 270,795	\$ 276,830	\$ 172,571	\$ 720,196
2002	\$ 397,978	\$ 406,848	\$ 207,012	\$ 1,011,838
2003	\$ 493,609	\$ 504,610	\$ 232,898	\$ 1,231,117
2004	\$ 835,534	\$ 854,156	\$ 421,047	\$ 2,110,736
2005	\$ 951,562	\$ 972,769	\$ 426,612	\$ 2,350,943
2006	\$ 1,409,293	\$ 1,440,703	\$ 675,957	\$ 3,525,953
2007	\$ 2,254,589	\$ 2,304,838	\$ 1,126,187	\$ 5,685,614
2008	\$ 1,773,801	\$ 1,813,333	\$ 694,945	\$ 4,282,078
2009	\$ 2,078,304	\$ 2,124,622	\$ 877,337	\$ 5,080,264
2010	\$ 2,896,357	\$ 2,960,907	\$ 1,479,231	\$ 7,336,495
2011	\$ 2,026,405	\$ 2,071,567	\$ 783,979	\$ 4,881,950
2012	\$ 2,386,283	\$ 2,439,464	\$ 1,028,143	\$ 5,853,890
2013	\$ 2,765,473	\$ 2,827,106	\$ 1,246,946	\$ 6,839,525
2014	\$ 3,102,090	\$ 3,171,226	\$ 1,375,668	\$ 7,648,983
2015	\$ 3,766,810	\$ 3,850,760	\$ 1,654,685	\$ 9,272,255
2016	\$ 4,557,912	\$ 4,659,492	\$ 2,161,089	\$ 11,378,494
Avg.	\$ 1,997,925	\$ 2,042,452	\$ 910,269	\$ 4,950,646

Figure 4.2 - Total Estimated Annual Tax Revenues

4.2 Bypass Construction Impacts

Figure 4.3 presents the summary economic impacts of the Bypass construction. These impacts were included in the total impact tables in Section 4.1. The average annual economic impacts for the six years of Bypass construction were approximately \$26.8 million in Sales transactions, \$10.4 million in Gross Regional Product, \$9.9 million in Total Compensation, and 247 jobs. Cumulatively, over the six year period Sales totaled \$160.5 million, Gross Regional Product - \$84.2 million, Total Compensation - \$59.1 million, and 1,479 job years (i.e. a job year equals 1 job for a year).

Bypass Construction Economic Impacts	
Includes the Direct, Indirect, and Induced Impacts	
Construction/Right-of-Way/Design Totals	
Sum Total - Six Years	
Economic Impact Category	Magnitude
Sales Transactions	\$ 160,536,225
Gross Regional Product	\$ 84,157,158
Total Compensation (Payroll)	\$ 59,122,907
<i>Job Years Summation</i>	1,479
Yearly Average for Six Years	
Economic Impact Category	Magnitude
Sales Transactions	\$ 26,756,038
Gross Regional Product	\$ 10,420,495
Total Compensation (Payroll)	\$ 9,853,818
Jobs	247
Sum Total - Six Years	
Tax Impact Category	Magnitude
Property	\$ 2,440,773
Excise	\$ 2,495,171
Income	\$ 1,938,755
Total	6,874,699
Yearly Average for Six Years	
Tax Impact Category	Magnitude
Property	\$ 406,796
Excise	\$ 415,862
Income	\$ 323,126
Total	1,145,783

Figure 4.3 - Summary of Economic Impacts of the Bypass Construction

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Average annual tax impacts were \$406,796 in property taxes, \$415,862 excise taxes, \$323,126 income taxes, for a total of \$1.15 million per year. Cumulatively they total \$6.9 million for the six years of Bypass construction.

Bypass Construction Jobs Impacts Includes the Direct, Indirect, and Induced Impacts				
Year	Construction	Right/Way	Design	Total/Year
2007	71	78	9	158
2010	317	153	77	547
2012	42	10	7	59
2013	79	-	6	85
2014	64	-	8	72
2016	366	164	28	558
Job Years	940	406	134	1,479

Bypass Construction Sales/Output Impacts Includes the Direct, Indirect, and Induced Impacts				
Year	Construction	Right/Way	Design	Total/Year
2007	\$ 7,683,790	\$ 8,866,162	\$ 892,022	\$ 17,441,974
2010	\$ 34,318,884	\$ 17,437,505	\$ 7,333,946	\$ 59,090,335
2012	\$ 4,500,409	\$ 1,156,198	\$ 655,253	\$ 6,311,860
2013	\$ 8,583,423	\$ -	\$ 576,276	\$ 9,159,699
2014	\$ 6,911,231	\$ -	\$ 747,838	\$ 7,659,069
2016	\$ 39,588,040	\$ 18,628,717	\$ 2,656,531	\$ 60,873,288
Total	\$ 101,585,777	\$ 46,088,582	\$ 12,861,866	\$ 160,536,225

Bypass Construction Gross Regional Product Impacts Includes the Direct, Indirect, and Induced Impacts				
Year	Construction	Right/Way	Design	Total/Year
2007	\$ 3,913,263	\$ 5,057,902	\$ 425,033	\$ 9,396,198
2010	\$ 17,478,201	\$ 9,947,617	\$ 3,494,498	\$ 30,920,316
2012	\$ 2,292,005	\$ 659,579	\$ 312,217	\$ 3,263,801
2013	\$ 4,371,436	\$ -	\$ 274,585	\$ 4,646,021
2014	\$ 3,519,808	\$ -	\$ 356,332	\$ 3,876,140
2016	\$ 20,161,720	\$ 10,627,171	\$ 1,265,791	\$ 32,054,682
Total	\$ 51,736,433	\$ 26,292,269	\$ 6,128,456	\$ 84,157,158

Bypass Construction Total Compensation Impacts Includes the Direct, Indirect, and Induced Impacts				
Year	Construction	Right/Way	Design	Total/Year
2007	\$ 3,021,561	\$ 2,779,925	\$ 327,678	\$ 6,129,164
2010	\$ 13,495,502	\$ 5,467,412	\$ 2,694,075	\$ 21,656,989
2012	\$ 1,769,734	\$ 362,518	\$ 240,703	\$ 2,372,955
2013	\$ 3,375,331	\$ -	\$ 211,691	\$ 3,587,022
2014	\$ 2,717,761	\$ -	\$ 274,713	\$ 2,992,474
2016	\$ 15,567,537	\$ 5,840,908	\$ 975,858	\$ 22,384,303
Total	\$ 39,947,426	\$ 14,450,763	\$ 4,724,718	\$ 59,122,907

Figure 4.4 - Yearly Detail - Bypass Construction Impacts

Figure 4.4 presents yearly detail for the Bypass construction impacts. Figure 4.5 represents the yearly detail tax impacts of Bypass construction.

Bypass Construction Tax Impacts				
Includes the Direct, Indirect, and Induced Impacts				
Year	Property	Excise	Income	Total/Year
2007	\$ 88,691	\$ 90,668	\$ 96,398	\$ 275,757
2010	\$ 396,131	\$ 404,960	\$ 430,550	\$ 1,231,641
2012	\$ 51,947	\$ 53,104	\$ 56,460	\$ 161,511
2013	\$ 99,075	\$ 101,284	\$ 107,685	\$ 308,044
2014	\$ 79,774	\$ 81,552	\$ 86,705	\$ 248,031
2016	\$ 456,951	\$ 467,135	\$ 496,654	\$ 1,420,740
Total	\$ 1,172,569	\$ 1,198,703	\$ 1,274,452	\$ 3,645,724
Right-of-Way Bypass (Construction) Tax Impacts				
Includes the Direct, Indirect, and Induced Impacts				
Year	Property	Excise	Income	Total/Year
2007	\$ 219,105	\$ 223,989	\$ 98,978	\$ 542,072
2010	\$ 430,925	\$ 440,528	\$ 194,666	\$ 1,066,119
2012	\$ 28,573	\$ 29,209	\$ 12,907	\$ 70,689
2013	\$ -	\$ -	\$ -	\$ -
2014	\$ -	\$ -	\$ -	\$ -
2016	\$ 460,363	\$ 470,622	\$ 207,964	\$ 1,138,949
Total	\$ 1,138,966	\$ 1,164,348	\$ 514,515	\$ 2,817,829
Design Bypass (Construction) Tax Impacts				
Includes the Direct, Indirect, and Induced Impacts				
Year	Property	Excise	Income	Total/Year
2007	\$ 8,963	\$ 9,163	\$ 10,389	\$ 28,515
2010	\$ 73,693	\$ 75,336	\$ 85,410	\$ 234,439
2012	\$ 6,584	\$ 6,731	\$ 7,631	\$ 20,946
2013	\$ 5,791	\$ 5,919	\$ 6,711	\$ 18,421
2014	\$ 7,514	\$ 7,682	\$ 8,709	\$ 23,905
2016	\$ 26,693	\$ 27,289	\$ 30,938	\$ 84,920
Total	\$ 129,238	\$ 132,120	\$ 149,788	\$ 411,146
Total Construction/Right-of-Way/Design Tax Impacts				
Includes the Direct, Indirect, and Induced Impacts				
Year	Property	Excise	Income	Total/Year
2007	\$ 316,759	\$ 323,820	\$ 205,765	\$ 846,344
2010	\$ 900,749	\$ 920,824	\$ 710,626	\$ 2,532,199
2012	\$ 87,104	\$ 89,044	\$ 76,998	\$ 253,146
2013	\$ 104,866	\$ 107,203	\$ 114,396	\$ 326,465
2014	\$ 87,288	\$ 89,234	\$ 95,414	\$ 271,936
2016	\$ 944,007	\$ 965,046	\$ 735,556	\$ 2,644,609
Total	\$ 2,440,773	\$ 2,495,171	\$ 1,938,755	\$ 6,874,699
Avg	\$ 406,796	\$ 415,862	\$ 323,126	\$ 1,145,783

Figure 4.5 - Yearly Detail - Tax Impacts of Bypass Construction

4.3 Business and Residential Construction Impacts

The annual economic impacts of business and residential construction is illustrated in Figure 4.6. These impacts were included in the total impact tables in Section 4.1. The business construction expenditures that were included in the economic impact estimation was 65% of the total firm construction activity (i.e. the portion that was considered basic, representing new monies to the local economy).

Estimated Annual Economic Impacts Business & Residential Construction				
Includes the Direct, Indirect, and Induced Impacts				
Year	Sales Transactions	Gross Regional Product	Total Compensation	Jobs
2001	\$ 8,609,915	\$ 4,169,703	\$ 3,267,725	82
2002	\$ 6,758,831	\$ 3,442,193	\$ 2,657,832	63
2003	\$ 5,523,445	\$ 2,674,953	\$ 2,096,316	53
2004	\$ 12,689,652	\$ 6,145,482	\$ 4,816,109	121
2005	\$ 7,863,233	\$ 3,808,091	\$ 2,984,337	75
2006	\$ 17,141,539	\$ 8,301,489	\$ 6,505,736	164
2007	\$ 22,444,120	\$ 10,869,481	\$ 8,518,227	214
2008	\$ 2,166,449	\$ 1,049,191	\$ 822,234	21
2009	\$ 10,395,956	\$ 5,034,666	\$ 3,945,582	99
2010	\$ 788,541	\$ 381,883	\$ 299,275	8
2011	\$ 1,238,017	\$ 599,561	\$ 469,866	12
2012	\$ 9,080,744	\$ 4,397,721	\$ 3,446,420	87
2013	\$ 14,479,154	\$ 7,012,121	\$ 5,495,280	138
2014	\$ 16,024,700	\$ 7,760,615	\$ 6,081,862	153
2015	\$ 29,095,413	\$ 14,118,085	\$ 10,697,726	266
2016	\$ 5,617,695	\$ 2,720,598	\$ 2,132,086	54
Total	\$ 169,917,404	\$ 82,485,831	\$ 64,236,612	1,609
Avg.	\$ 10,619,838	\$ 5,155,364	\$ 4,014,788	101

Figure 4.6 - Business & Residential Construction

The remaining 35% of business firm construction was not included in the economic impacts because the construction was considered to be substitutable and would have been located elsewhere in the community. The average annual economic impacts were estimated at \$10.6

million in Sales transactions, \$5.2 million in Gross Regional Product, \$4.0 million in Total Compensation, and 101 jobs. In total, cumulative Sales transactions were \$170 million with 1,609 job years.

Figure 4.7 displays the average annual tax impacts: \$112,130 property taxes; \$114,629 excise taxes; \$127,039 income taxes; totaling \$353,797 annually to the community coffers. Cumulatively total tax revenues were \$5.7 million.

Estimated Annual Tax Revenues Residential & Business Construction				
Includes the Direct, Indirect, and Induced Impacts				
Year	Property	Excise	Income	Total
2001	\$ 89,047	\$ 91,031	\$ 103,148	\$ 283,225
2002	\$ 78,015	\$ 79,754	\$ 84,793	\$ 242,562
2003	\$ 57,125	\$ 58,399	\$ 66,171	\$ 181,695
2004	\$ 131,240	\$ 134,166	\$ 152,024	\$ 417,430
2005	\$ 81,324	\$ 83,136	\$ 94,203	\$ 258,663
2006	\$ 177,283	\$ 181,235	\$ 205,358	\$ 563,876
2007	\$ 232,124	\$ 237,297	\$ 268,884	\$ 738,305
2008	\$ 22,406	\$ 22,905	\$ 25,955	\$ 71,266
2009	\$ 107,518	\$ 109,914	\$ 124,545	\$ 341,977
2010	\$ 8,156	\$ 8,337	\$ 9,446	\$ 25,939
2011	\$ 12,804	\$ 13,090	\$ 14,832	\$ 40,725
2012	\$ 93,916	\$ 96,009	\$ 108,788	\$ 298,713
2013	\$ 149,748	\$ 153,085	\$ 173,462	\$ 476,296
2014	\$ 165,732	\$ 169,426	\$ 191,978	\$ 527,137
2015	\$ 329,537	\$ 336,881	\$ 341,729	\$ 1,008,147
2016	\$ 58,100	\$ 59,394	\$ 67,301	\$ 184,796
Total	\$ 1,794,076	\$ 1,834,060	\$ 2,032,616	\$ 5,660,753
Avg.	\$ 112,130	\$ 114,629	\$ 127,039	\$ 353,797

Figure 4.7 - Business & Residential Annual Tax Impacts

4.4 New Firm Business Operation Impacts

New firm operations create additional economic impacts in the community. These impacts were included in the total impact tables in Section 4.1. Approximately 33% of all new firm operations were considered basic and new monies to the economy. Approximately 67% was not basic and substitutable within the economy. Non basic expenditures would have occurred from other existing firms or operations in the economy.

Estimated Annual Economic Impacts Bypass Firm Operations				
Includes the Direct, Indirect, and Induced Impacts				
Year	Sales Transactions	Gross Regional Product	Total Compensation	Jobs
2001	\$ 5,768,897	\$ 3,574,651	\$ 1,980,609	59
2002	\$ 10,155,994	\$ 6,293,082	\$ 3,486,811	105
2003	\$ 13,854,472	\$ 8,584,815	\$ 4,756,593	143
2004	\$ 22,355,044	\$ 13,852,127	\$ 7,675,056	231
2005	\$ 27,622,297	\$ 17,115,939	\$ 9,483,438	285
2006	\$ 39,105,366	\$ 24,231,332	\$ 13,425,868	403
2007	\$ 54,140,980	\$ 33,548,031	\$ 18,587,977	558
2008	\$ 55,591,185	\$ 34,446,639	\$ 19,085,870	573
2009	\$ 62,554,904	\$ 38,761,653	\$ 21,476,692	645
2010	\$ 63,083,909	\$ 39,089,447	\$ 21,658,313	650
2011	\$ 63,913,901	\$ 39,603,745	\$ 21,943,270	659
2012	\$ 69,997,464	\$ 43,373,377	\$ 24,031,912	722
2013	\$ 79,697,419	\$ 49,383,878	\$ 27,362,154	822
2014	\$ 90,432,583	\$ 56,035,837	\$ 31,047,809	932
2015	\$ 109,102,830	\$ 67,604,709	\$ 37,457,780	1,125
2016	\$ 112,865,154	\$ 69,936,003	\$ 38,749,482	1,164

Figure 4.8 - Economic Impacts of Firm Operations

Since there is a stream of new firm openings that follow the new firm construction, the operations impacts have a cumulative effect which is unlike construction. Operations impacts are ongoing year-to-year and not a one-time impact. The average annual operations impacts were \$55 million in sales transactions, \$34 million in gross regional product, \$18.9 million in

total compensation, and 567 jobs. The jobs impacts range from 59 in 2001 to 1,164 in 2016 as illustrated in Figure 4.8. These include the multiplier effects.

Tax revenues are presented in Figure 4.9. The average annual property taxes are \$1.7 million, excise taxes are \$1.8 million, income taxes are \$0.7 million, and they total about \$4.2 million.

Estimated Annual Tax Revenues Bypass Firm Operations				
Includes the Direct, Indirect, and Induced Impacts				
Year	Property	Excise	Income	Total
2001	\$ 181,748	\$ 185,799	\$ 69,424	\$ 436,971
2002	\$ 319,964	\$ 327,094	\$ 122,218	\$ 769,276
2003	\$ 436,484	\$ 446,211	\$ 166,726	\$ 1,049,421
2004	\$ 704,293	\$ 719,990	\$ 269,023	\$ 1,693,306
2005	\$ 870,238	\$ 889,632	\$ 332,410	\$ 2,092,280
2006	\$ 1,232,011	\$ 1,259,468	\$ 470,598	\$ 2,962,077
2007	\$ 1,705,706	\$ 1,743,720	\$ 651,539	\$ 4,100,965
2008	\$ 1,751,395	\$ 1,790,427	\$ 668,991	\$ 4,210,812
2009	\$ 1,970,786	\$ 2,014,708	\$ 752,793	\$ 4,738,287
2010	\$ 1,987,452	\$ 2,031,746	\$ 759,159	\$ 4,778,357
2011	\$ 2,013,601	\$ 2,058,477	\$ 769,147	\$ 4,841,225
2012	\$ 2,205,263	\$ 2,254,411	\$ 842,357	\$ 5,302,031
2013	\$ 2,510,859	\$ 2,566,818	\$ 959,088	\$ 6,036,764
2014	\$ 2,849,069	\$ 2,912,565	\$ 1,088,276	\$ 6,849,910
2015	\$ 3,437,273	\$ 3,513,879	\$ 1,312,956	\$ 8,264,108
2016	\$ 3,555,805	\$ 3,635,052	\$ 1,358,232	\$ 8,549,089
Avg.	\$ 1,733,247	\$ 1,771,875	\$ 662,059	\$ 4,167,180

Figure 4.9 - Annual Tax Impacts of Firm Operations

4.5 Study Caveats and Limitations

There are several caveats and limitations in this study:

- 1) The selected geography is Flathead County as an integrated economy. Given the nature of construction impacts, some expenditures and activity may spill into the broader state economy.
- 2) It is assumed that about 65% of the new firm construction is base activity and represents new monies to Kalispell. We also assume that about 33% of new firm operations is basic as well. To the extent that the “true” base activity is different than our assumptions, then the “true” impacts would also differ from our estimates.
- 3) We relied heavily on the standard IMPLAN production function parameters in our analysis due to data limitations particularly in the new firm operations estimates, and to a lesser extent for the construction impacts.



Figure 4.10 – Four Mile Drive Construction

5.0 Closing Remarks

Given the Bypass construction expenditures and the assumptions about the percentage of business and residential construction and firm operations attributed to the Bypass construction, the results in Section 4.0 show a total average annual impact in Sales of over \$75 million. The results also show impacts totaling over \$44 million in Gross Regional Product, over \$26 million in Total Compensation and the creation of 760 jobs annually. The impacts occur over a 16-year period starting in 2001 and is based off of the start of private construction development provided by the City of Kalispell. MDT started purchasing property during this time period to preserve the corridor for the new Bypass.

The total impact of annual sales is over \$75 million annually for each of the 16 years of the study period and represents the total economic impacts attributed to the construction of the Kalispell Bypass. To achieve this output, a total of approximately \$135 million was invested in the Kalispell Bypass project to realize the completed facility as it exists today. It is important to note the planning for the location of the Bypass corridor was completed under a cooperative effort between the City of Kalispell, Flathead County, FHWA, and MDT. After the corridor location was selected, the corridor location was platted and the local governments involved evaluated the surrounding properties for zoning, development, and access to the Bypass and the local transportation network.

This coordinated effort to plan for the interfacing between the Bypass and the surrounding properties was essential for the design of the Bypass and the design of potential development properties. In most cases, the City of Kalispell would designate the various zoned areas and they were the government who worked with property owners and developers to guide each development situation to a successful conclusion. Through this coordinated effort, development was designed with significant consideration given to access the area's transportation network and ultimately the Bypass. The coordination effort in one of Montana's urban areas made the impact of the Bypass construction extraordinary by Montana standards. Construction of new highway networks are rare since the completion of the Interstate and are very difficult to achieve in any urban environment. An entire area of one of Montana's urban systems was dependent on the construction of a transportation project.

With the Bypass open, active, and busy, development which restarted in earnest in 2014 continues with additional growth opportunities for businesses and residential construction. DNRC's Spring Prairie Development continues to draw interest from developers and business owners to acquire the remaining sections of its property available for construction. It is likely the entire development section will be utilized in the near future. Other sizeable development areas on the northwest quadrant of Kalispell are now viable with the new transportation network in place. Several projects are underway in either the planning phase or are under construction. With a fully connected Bypass facility, even the south terminus area may attract

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attention with the expectation of increased traffic along the corridor, especially in the summer months.

Along with the income generation DNRC receives from the Spring Prairie Development, the \$25 million Glacier High School project was completed in 2007 as Montana's newest AA high school. Both Glacier High School and DNRC income are not in the economic inputs of the modeling but represent notable examples of the secondary effects the Bypass system has on northwest Montana's economy. Other secondary effects are future developments which are underway and potential land development which now exists because of the Bypass construction. These secondary effects also cannot be accounted for in the analysis but are real effects which will contribute to the growing economy in the Flathead Valley.

With nearly a record setting 3 million visitors to Glacier National Park and other tourist attractions, the traffic demand on the area's transportation network seems to grow every year. The purpose and need of the Kalispell Bypass is now on display by improving the region's transportation capacity and increasing highway safety. It has also provided benefit to the region's economy and has given the historic downtown area a chance to see revitalization and economic growth. The revitalization of the historic downtown area is also not a measureable economic in this study but it is an important secondary effect of the Bypass construction.

The economic impact of the Kalispell Bypass serves as an example of the importance of transportation to Montana's infrastructure and economy. The investment of \$135 million resulted in an output of over \$75 million annually in economic impact to northwest Montana's economy for 16 years and counting. It is important to note this example is probably an extraordinary example of transportation investment dollars into Montana's economy. However, there are other sizeable projects active in Montana that represent many of the improvements to transportation and to an urban area's development like the Kalispell Bypass brought to northwest Montana. Construction of these projects will provide economic impacts.



Figure 5.1 – Ribbon Cutting on October 28, 2016

Appendix A
Kalispell Bypass Construction Data & Calculations

Kalispell Bypass Cost Breakdown							
Project	Construction Year	Design Cost	Utility Relocation Cost	Right-Of-Way Cost	Construction Cost *	Total Cost	
US 93 Bikepath Connection	2010	\$20,000			\$494,044	\$514,044	
US 93 to Airport Rd - Kalispell	2010	\$1,300,000	\$100,000	\$2,826,886	\$8,756,999	\$12,983,885	
Airport Rd to Foy's Lake Rd - Kalispell (Interim 2 Lane)#	2010	\$600,000	\$50,000	\$2,937,270	\$13,413,412	\$17,000,682	
Airport & Foy's Lake Interchange - Kalispell	Future Construction		\$250,000			\$250,000	
Foy's Lake Rd to US 2 - Kalispell (Interim 2 Lane)#	2010	\$1,300,000	\$250,000	\$6,987,805		\$8,537,805	
US 2 Interchange - Kalispell**	2016		\$500,000			\$500,000	
US 2 Widening - Kalispell	2010	\$300,000	\$500,000	\$2,947,874	\$3,673,866	\$7,421,740	
US 2 to Three Mile Drive - Kalispell **	2016	\$700,000		\$18,635,952	\$17,700,000	\$37,035,952	
Three Mile Drive - Kalispell	2014	\$400,000	\$587,000		\$5,037,886	\$6,024,886	
Three Mile Drive to Reserve Loop - Kalispell **	2016	\$800,000			\$17,300,000	\$18,100,000	
Reserve Loop - Kalispell	2007	\$413,700	\$492,000	\$7,639,866	\$5,499,268	\$14,044,834	
Reserve Drive South - Kalispell	2012	\$332,000	\$500,000	\$1,081,242	\$3,714,167	\$5,627,409	
Reserve Loop to US 93 - Kalispell	2013	\$300,000			\$6,820,291	\$7,120,291	
Total to Date		\$6,465,700	\$3,229,000	\$43,056,895	\$82,409,933	\$135,161,528	
* Construction Cost May Include Contract Amount Plus Construction Engineering Oversight							
** Tied Construction Contract With Four Mile Contract Work							
# Tied Construction Contract							
Material & Labor Breakdown							
Project	Construction Year	Labor Cost	In-State Material Cost	Out-of-State Material Cost			
US 93 Bikepath Connection	2010	\$100,649	\$154,939	\$6,100			
US 93 to Airport Rd - Kalispell	2010	\$2,430,134	\$3,347,483	\$540,731			
Airport Rd to Foy's Lake Rd - Kalispell (Interim 2 Lane)#	2010	\$3,888,013	\$5,794,310	\$426,510			
Airport & Foy's Lake Interchange - Kalispell	Future Construction						
Foy's Lake Rd to US 2 - Kalispell (Interim 2 Lane)#	2010						
US 2 Interchange - Kalispell**	2016						
US 2 Widening - Kalispell	2010	\$1,114,250	\$1,677,160	\$105,641			
US 2 to Three Mile Drive - Kalispell**	2016	\$10,177,854	\$13,753,585	\$2,530,981			
Three Mile Drive - Kalispell	2014	\$1,488,438	\$2,038,983	\$342,518			
Three Mile Drive to Reserve Loop - Kalispell**	2016						
Reserve Loop - Kalispell	2007	\$1,573,151	\$2,309,363	\$207,679			
Reserve Drive South - Kalispell	2012	\$885,923	\$1,225,280	\$192,197			
Reserve Loop to US 93 - Kalispell	2013	\$2,046,087	\$2,998,568	\$275,171			
Total to Date		\$23,704,501	\$33,299,672	\$4,627,529			

Cost Breakouts									
US 2 to Resene Loop Contract - Contractor Breakout Example									
	Contract Amount	Labor Cost	% Labor	Material Cost	% Material	Equipment Cost	% Equipment	Overhead	% Overhead
Total Contract Amount	\$33,976,180.64								
Prime Contractor Amount	\$22,760,089.64	\$3,863,096.00	16.97%	\$12,015,969.00	52.79%	\$4,214,114.00	18.52%	\$2,666,910.64	11.72%
Subcontracted Amount	\$11,166,091.00	\$1,895,233.37	16.97%	\$5,895,029.65	52.79%	\$2,067,442.67	18.52%	\$1,308,385.31	11.72%
For the purpose of this exercise and given the numerous subcontractors involved, the same percentage for all categories will be used for the subcontracted amounts.									
Airport Rd to Foy's & Foy's to US 2 - Contractor Breakout Example									
	Contract Amount	Labor Cost	% Labor	Material Cost	% Material	Equipment Cost	% Equipment	Overhead	% Overhead
Total Contract Amount	\$12,960,042.56								
Prime Contractor Amount	\$8,461,051.56	\$1,379,303.00	16.30%	\$3,664,001.00	43.30%	\$2,152,574.00	25.44%	\$1,265,173.56	14.95%
Subcontracted Amount	\$4,498,991.00	\$733,416.14	16.30%	\$1,948,257.54	43.30%	\$1,144,587.17	25.44%	\$672,730.15	14.95%
For the purpose of this exercise and given the numerous subcontractors involved, the same percentage for all categories will be used for the subcontracted amounts.									
Given these examples, the following estimations will be applied to all Kalispell Bypass contracts									

Material Cost Breakout - In State vs Out Of State Material Costs	
Contract	Three Mile Drive
Total Contract Amount	\$4,961,461.12
Out Of State Material Based Bid Items	
Concrete Bridge Beams	\$303,867.79
Reinforcing Steel	\$102,098.59
PVC Pipe	\$129,425.52
Guardrail	\$11,110.95
Detect Warning Devices	\$5,816.64
Conduit	\$22,706.76
Electrical	\$22,981.88
Signs	\$3,243.66
Striping Paint	\$38,570.55
Geotextile	\$73,757.04
Total Out Of State Material Based Bid Items	\$713,579.38
Total In State Material Based Bid Items	\$4,247,881.74
Contract	US 93 - Airport Rd
Total Contract Amount	\$8,100,445.71
Out Of State Material Based Bid Items	
Hydrated Lime	\$38,478.80
Concrete Bridge Beams	\$210,241.14
Reinforcing Steel	\$95,858.45
Bridge Piling	\$145,498.31
Drainage Pipe	\$36,009.79
PVC Pipe	\$26,168.09
Steel Casing	\$13,706.13
Guardrail	\$28,125.35
Detect Warning Devices	\$18,022.99
Conduit	\$57,848.49
Electrical	\$182,152.48
Signs	\$72,749.86
Striping Paint	\$52,366.15
Geotextile	\$149,297.76
Total Out Of State Material Based Bid Items	\$1,126,523.79
Total In State Material Based Bid Items	\$6,973,921.92

Material Cost Breakout - In State vs Out Of State Material Costs	
Contract	Airport Rd to Foys & Foys to US 2
Total Contract Amount	\$12,960,042.56
Out Of State Material Based Bid Items	
Concrete Bridge Beams	\$168,300.00
Hydrated Lime	\$71,850.38
Reinforcing Steel	\$34,706.60
Bridge Piling	\$49,074.00
PVC & HDPE Pipe	\$61,869.24
Ductile Iron Fittings	\$15,530.00
Steel Casing	\$43,111.20
Valves	\$14,040.00
Guardrail	\$47,978.22
Detect Warning Devices	\$8,206.92
Conduit	\$21,672.35
Electrical	\$67,272.76
Signs	\$34,730.16
Striping Paint	\$50,536.40
Geotextile	\$199,684.27
Total Out Of State Material Based Bid Items	\$888,562.50
Total In State Material Based Bid Items	\$12,071,480.06
Contract	US 2 to 3 Mile Drive & 3 Mile Drive to Reserve Loop
Total Contract Amount	\$33,926,180.64
Out Of State Material Based Bid Items	
Concrete Bridge Beams	\$2,223,559.57
Reinforcing Steel	\$490,432.34
Bridge Piling	\$621,860.53
PVC Pipe	\$55,893.90
Ductile Iron Fittings	\$5,286.71
Guardrail	\$150,970.35
Detect Warning Devices	\$27,033.60
Valves	\$7,047.28
Conduit	\$283,989.12
Electrical	\$650,299.70
Signs	\$167,429.78
Striping Paint	\$185,079.38
Geotextile	\$403,995.55
Total Out Of State Material Based Bid Items	\$5,272,877.81
Total In State Material Based Bid Items	\$28,653,302.83

Material Cost Breakout - In State vs Out Of State Material Costs	
Contract	Reserve Drive - South
Total Contract Amount	\$2,953,078.16
Out Of State Material Based Bid Items	
PVC Pipe	\$63,312.95
Ductile Iron Fittings	\$9,877.82
Guardrail	\$37,073.47
Detect Warning Devices	\$9,352.18
Valves	\$9,991.14
Conduit	\$28,899.45
Electrical	\$141,271.16
Signs	\$15,850.16
Striping Paint	\$40,108.56
Geotextile	\$44,674.53
Total Out Of State Material Based Bid Items	\$400,411.42
Total In State Material Based Bid Items	\$2,552,666.74
Contract	US 2 - Widening
Total Contract Amount	\$3,714,167.00
Out Of State Material Based Bid Items	
Steel Casing	\$57,316.58
Guardrail	\$29,536.92
Conduit	\$15,900.41
Electrical	\$55,462.16
Signs	\$12,798.81
Striping Paint	\$21,812.72
Geotextile	\$27,257.09
Total Out Of State Material Based Bid Items	\$220,084.69
Total In State Material Based Bid Items	\$3,494,082.31
Contract	Reserve Loop
Total Contract Amount	\$5,243,837.85
Out Of State Material Based Bid Items	
Pipe - PVC	\$12,022.50
Detectable Warning Devices	\$15,029.00
Conduit	\$73,452.28
Electrical	\$190,966.36
Signs	\$42,059.59
Striping Paint	\$3,231.96
Geotextile	\$95,903.00
Total Out Of State Material Based Bid Items	\$432,664.69
Total In State Material Based Bid Items	\$4,811,173.16

Material Cost Breakout - In State vs Out Of State Material Costs	
Contract	US 93 Bikepath
Total Contract Amount	\$335,497.75
Out Of State Material Based Bid Items	
Bridge Piling	\$9,568.00
Detectable Warning Devices	\$634.60
Signs	\$1,504.70
Striping Paint	\$1,000.00
Total Out Of State Material Based Bid Items	\$12,707.30
Total In State Material Based Bid Items	\$322,790.45
Contract	Reserve Loop to US 93
Total Contract Amount	\$6,820,291.00
Out Of State Material Based Bid Items	
Hydrated Lime	\$31,619.72
Steel Casing	\$46,266.80
Guardrail	\$20,700.00
Detectable Warning Devices	\$19,470.98
Conduit	\$40,041.55
Electrical	\$172,072.79
Signs	\$71,687.35
Striping Paint	\$94,392.25
Geotextile	\$77,022.17
Total Out Of State Material Based Bid Items	\$573,273.61
Total In State Material Based Bid Items	\$6,247,017.39

Appendix B
Land Development & Job Creation Data & Calculations

Kalispell Bypass - Land Development Impacts - Page 1

YEAR	ADDRESS	NAME	DESCRIPTION	SQ FT	PROJECT VALUATION
2001	2455 HWY 93 N	HOME DEPOT	RETAIL/WAREHOUSE	115,086	\$5,000,000.00
2002	2365 HWY 93 N	TARGET	RETAIL	124,056	\$4,572,300.78
2003	2355 HWY 93 N	THE DOLLAR TREE	RETAIL	12,500	\$650,000.00
2003	2385 HWY 93 N	SHELL	VARIOUS	15,500	\$500,000.00
2003	2387 HWY 93 N	ROSS DRESS FOR LESS	RETAIL	30,003	\$542,003.00
2003	2391 HWY 93 N	TJ MAXX	RETAIL	28,033	\$576,005.00
2003	2395 HWY 93 N	BORDERS BOOKS/ NOW NATURAL GROCERS	BOOKSTORE/ORGANIC GROCERIES	20,077	\$623,005.00
2003	2435 HWY 93 N	PETCO	RETAIL	12,043	\$475,005.00
2004	2360 HWY 93 N	LOWE'S	RETAIL/WAREHOUSE	134,563	\$7,704,000.00
2004	2425 HWY 93 N	IHOP	RESTAURANT	4,800	\$485,000.00
2005	2350 HWY 93 N	WELLS FARGO BANK	BANK	3,024	\$875,000.00
2005	2375 HWY 93 N	PIER ONE IMPORTS	RETAIL	9,460	\$425,700.00
2005	2407 HWY 93 N	BEST BUY	RETAIL	20,000	\$964,200.00
2005	2411 HWY 93 N	BED, BATH & BEYOND	RETAIL	23,000	\$1,108,830.00
2005	255 RESERVE LOOP	FIRE STATION #62	CITY FIRE STATION	11,436	\$2,000,000.00
2006	130 HUTTON RANCH RD	HUHOT	RESTAURANT	4,539	\$650,000.00
2006	135 HUTTON RANCH RD	SHELL	VARIOUS	11,554	\$1,200,000.00
2006	145 HUTTON RANCH RD	SPORTSMAN SKI HAUS/SHELL	RETAIL	58,874	\$2,474,827.00
2006	2356 HWY 93 N	STARBUCK'S	COFFEE SHOP	1,926	\$210,000.00
2006	275 TREELINE RD	HOLIDAY INN EXPRESS	HOTEL	64,359	\$4,992,600.00
2007	110 HUTTON RANCH RD	SHELL	RESTAURANTS	6,600	\$650,000.00
2007	120 HUTTON RANCH RD	FLATHEAD BANK	BANK	6,429	\$1,199,000.00
2007	125 HUTTON RANCH RD	GLACIER QUILTS	RETAIL	5,820	\$631,175.00
2007	145 HUTTON RANCH RD	SPORTSMAN SKI HAUS/TENANT IMPROVEMENT	RETAIL	N/A	\$1,649,884.98
2007	2310 HWY 93 N	MC DONALDS	RESTAURANT	3,253	\$400,000.00
2007	2340 HWY 93 N	FAMOUS DAVES	RESTAURANT	8,840	\$1,100,000.00
2007	2545 HWY 93 N	EISINGER HONDA	CAR DEALERSHIP	22,700	\$3,132,052.25
2007	2563 HWY 93 N	EISINGER CHEVROLET	CAR DEALERSHIP	42,690	\$6,134,652.37
2008	115 HUTTON RANCH RD	SIZZLERS	RESTAURANT	5,524	\$775,000.00
2008	2316 HWY 93 N	MED NORTH	MEDICAL CLINIC	6,277	\$1,100,000.00
2009	155 HUTTON RANCH RD	SHELL	VARIOUS	5,610	\$560,000.00
2009	170 HUTTON RANCH RD	WALMART	RETAIL	188,028	\$8,500,000.00
2010	150 HUTTON RANCH RD	SHELL	VARIOUS	7,058	\$691,684.00
2011	2322 HWY 93 N	APPLEBEE'S	RESTAURANT	5,280	\$1,100,000.00
2012	195 HUTTON RANCH RD	HILTON HOMEWOOD SUITES	HOTEL	79,844	\$8,172,780.00
2013	125 TREELINE RD	CABELA'S	RETAIL	42,164	\$5,000,000.00
2013	175 TIMBERWOLF PKWY	GLACIER OPTICIANS	EYE CLINIC	136,739	\$6,200,000.00
2013	3075 HWY 93 S	FRED'S APPLIANCES	RETAIL	23,738	\$2,000,000.00
2014	145 HUTTON RANCH RD	SPORTSMAN SKI HAUS/ADDITION	RETAIL	83,461	\$2,800,000.00
2014	145 TREELINE RD	MICHAELS	ARTS & CRAFTS	18,148	\$1,631,000.00
2014	155 TREELINE RD	ULTA	COSMETIC STORE	9,872	\$715,000.00

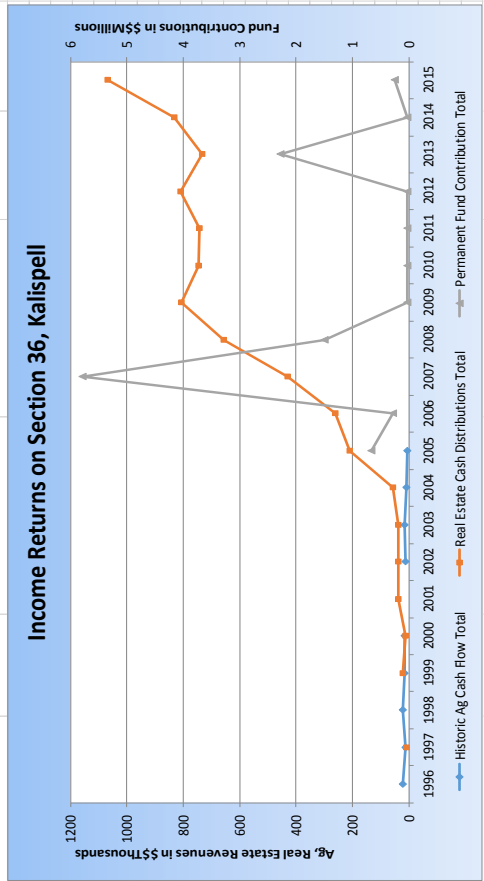
Kalispell Bypass - Job Creation Impacts									
Industry	# Businesses	Ave # Employees - 3rd Q 2016	Total Quarterly Wages - 3rd Q 2016	Ave # Employees - 2nd Q 2016	Total Quarterly Wages - 2nd Q 2016	Ave # Employees - 1st Q 2016	Total Quarterly Wages - 1st Q 2016	Ave # Employees - 4th Q 2015	Total Quarterly Wages - 4th Q 2015
Retail Trade	31	1,477	\$2,160,977	1,440	\$1,883,558	1,399	\$1,043,517	1,489	\$1,617,483
Accommodation and Food Services	14	489	\$2,222,814	521	\$2,227,290	505	\$1,927,041	516	\$2,700,257
Other	9	490	\$2,795,132	478	\$3,405,307	466	\$2,980,074	491	\$3,515,172

Summary of Trust Revenues from "Spring Prairie" - 29N 22W, Section 36 in Kalispell - Partial Data for First Half of FY 2016

FY	Historic Ag Cash Flow	UseType	Real Estate Cash Distributions			Fund Distributions	Real Estate Cash Distributions Total	Easement	Fund Growth	Permanent Fund Contribution Total	Grand Total
			Lease	License	Historic Ag Cash Flow Total						
1996	\$20,798									\$20,798	
1997	\$11,294		\$7,591			\$7,591				\$18,885	
1998	\$20,339					\$20,885				\$20,339	
1999	\$13,929					\$11,838				\$34,814	
2000	\$14,586					\$37,955				\$26,424	
2001						\$38,524				\$37,985	
2002	\$11,261					\$57,762				\$49,785	
2003	\$14,081					\$210,855		\$126		\$50,195	
2004	\$6,900					\$261,172		\$2,611		\$882,366	
2005	\$4,485					\$429,941		\$3,052		\$542,713	
2006						\$654,768		\$21,065		\$6,220,633	
2007						\$805,919		\$21,203		\$1,495,065	
2008						\$744,348		\$21,093		\$2,149,833	
2009						\$809,240		\$20,733		\$827,123	
2010						\$390,183		\$20,536		\$765,441	
2011						\$399,977		\$21,051		\$761,892	
2012						\$472,252		\$24,855		\$829,776	
2013						\$473,810		\$22,603,367		\$3,013,297	
2014						\$106,749		\$29,370		\$855,355	
2015						\$306,099		\$10,697,207		\$1,321,776	
2016						\$650		\$181,264		\$306,749	
Grand Total	\$117,673		\$4,204,887	\$155,769		\$3,444,011			\$10,878,470	\$18,800,810	

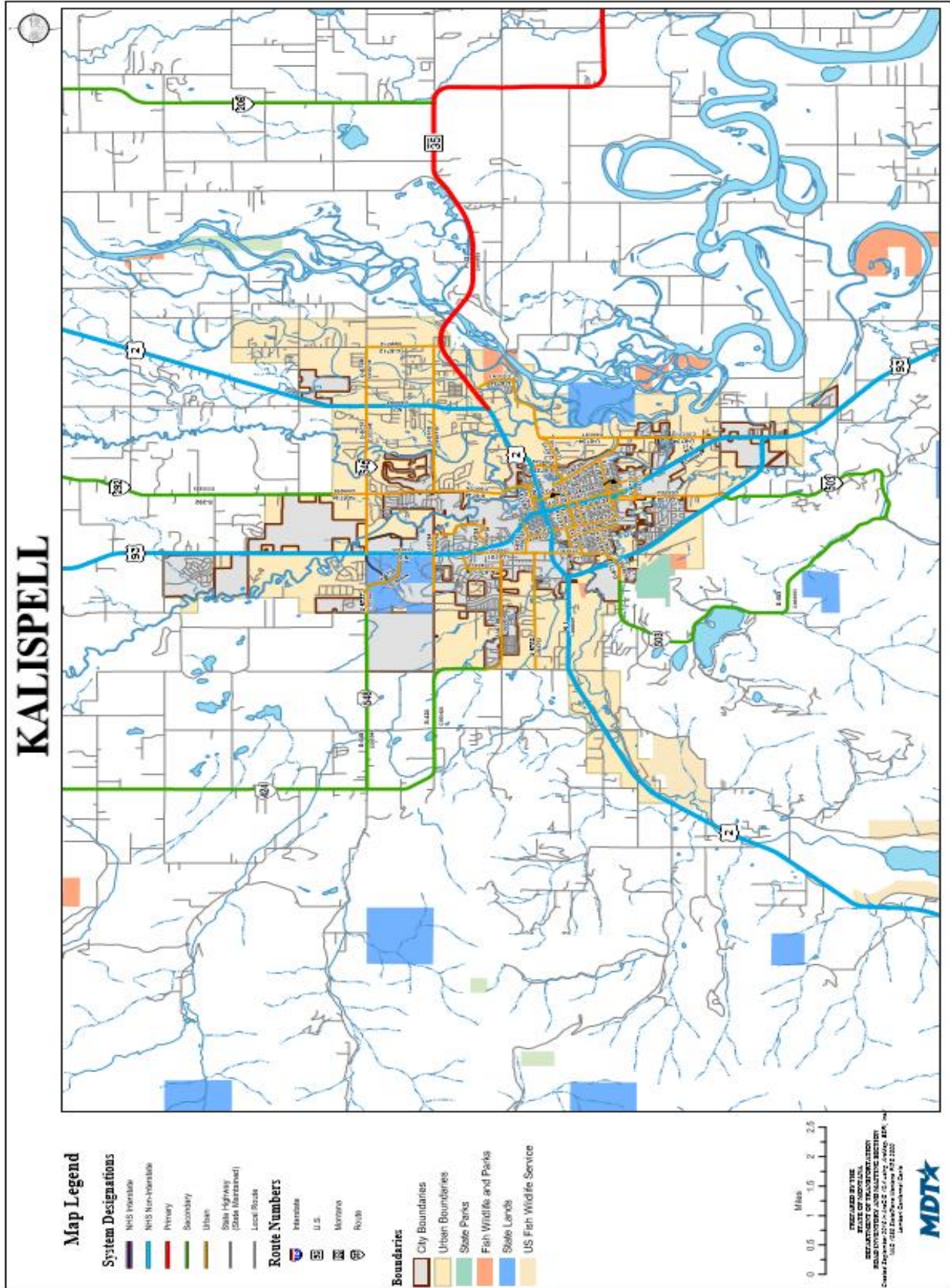
~ Fund Distributions and Fund Growth are estimates of the compounding returns of one-time easement payments into the permanent fund.

~ expect Victory Commons lease to hit full base rent in 2 years, ballpark \$170,838

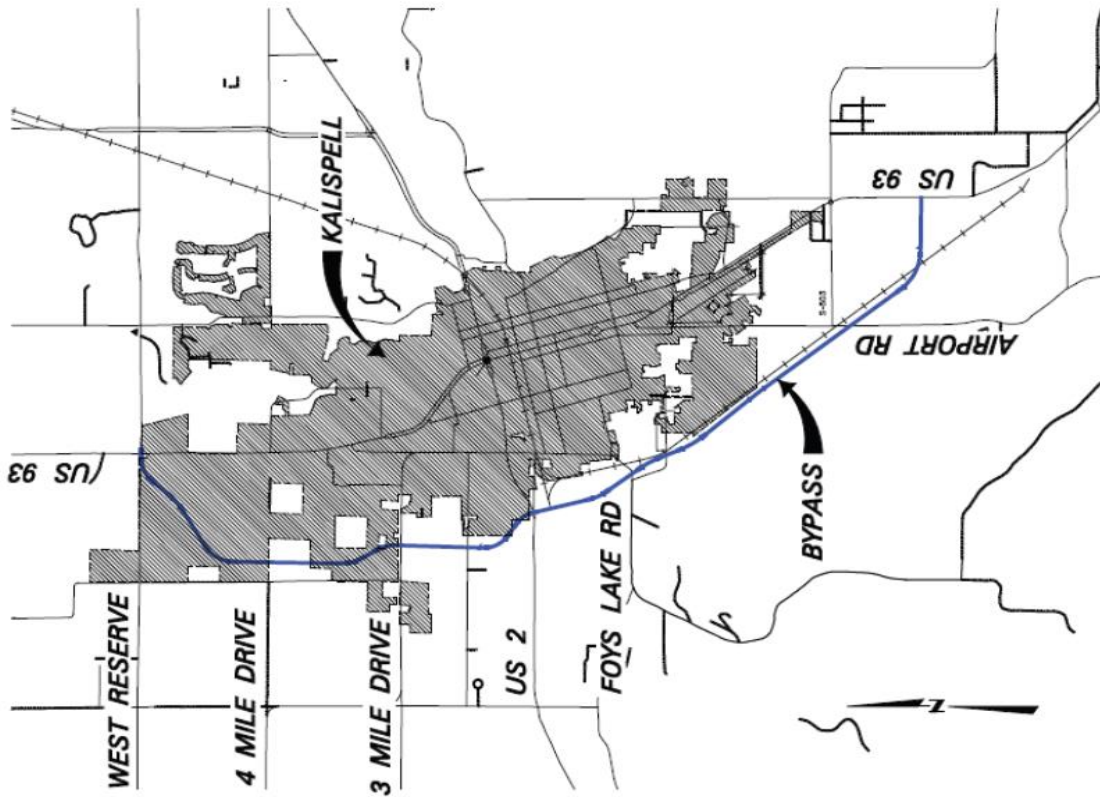


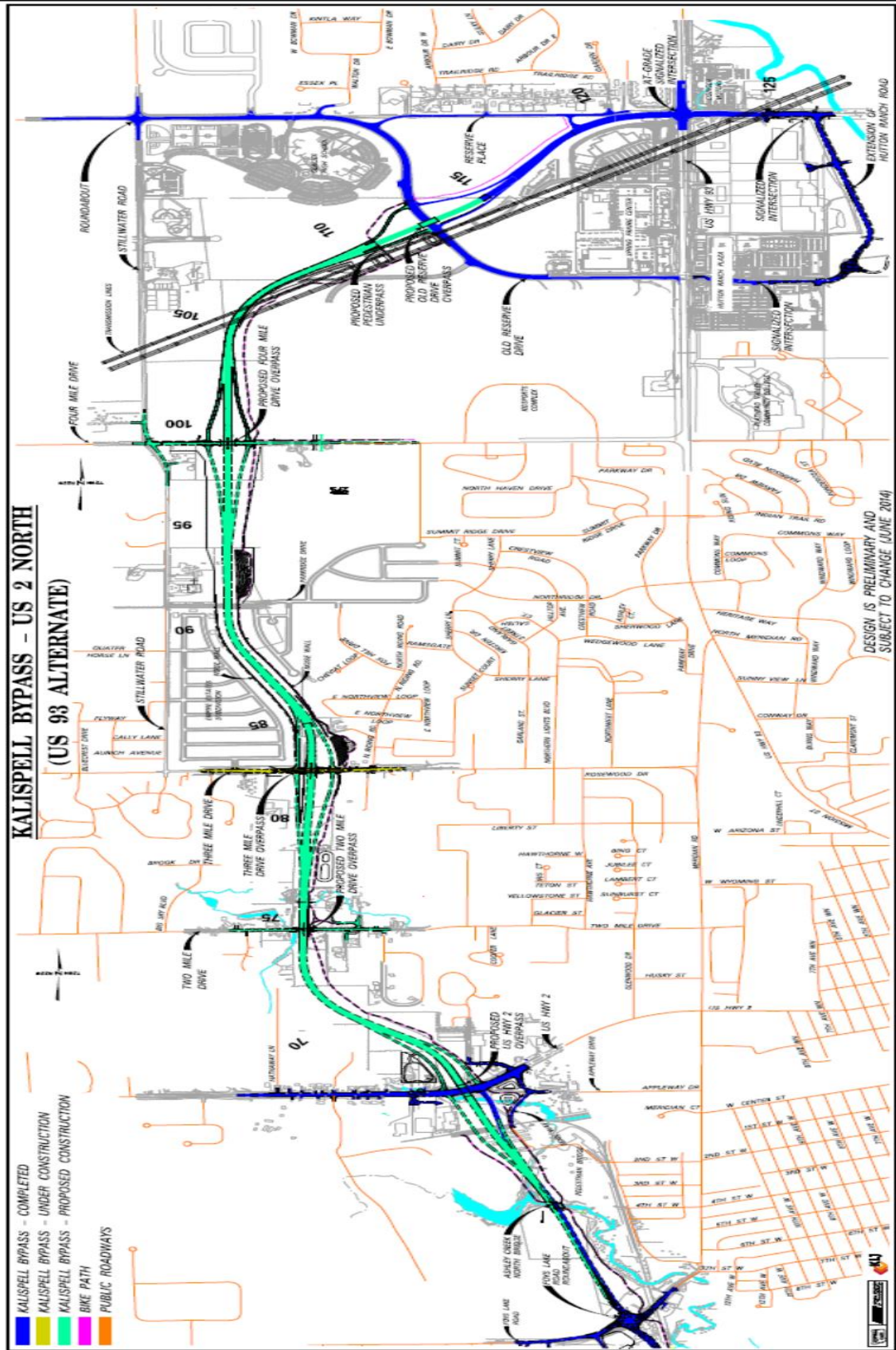
FY	Historic Ag Cash Flow Total	Real Estate Cash Distributions Total	Permanent Fund Contribution Total
1996	\$20,798		
1997	\$11,294	\$7,591	
1998	\$20,339		
1999	\$13,929	\$20,885	
2000	\$14,586	\$11,838	
2001		\$37,955	
2002	\$11,261	\$38,524	
2003	\$14,081	\$36,114	
2004	\$6,900	\$57,762	
2005	\$4,485	\$210,855	
2006		\$281,541	\$667,026
2007		\$429,941	\$5,790,692
2008		\$654,768	\$1,495,065
2009		\$805,919	\$21,203
2010		\$744,348	\$21,093
2011		\$741,159	\$20,733
2012		\$809,240	\$20,536
2013		\$731,879	\$2,281,418
2014		\$830,499	\$24,855
2015		\$830,499	\$254,307
2016		\$1,067,469	

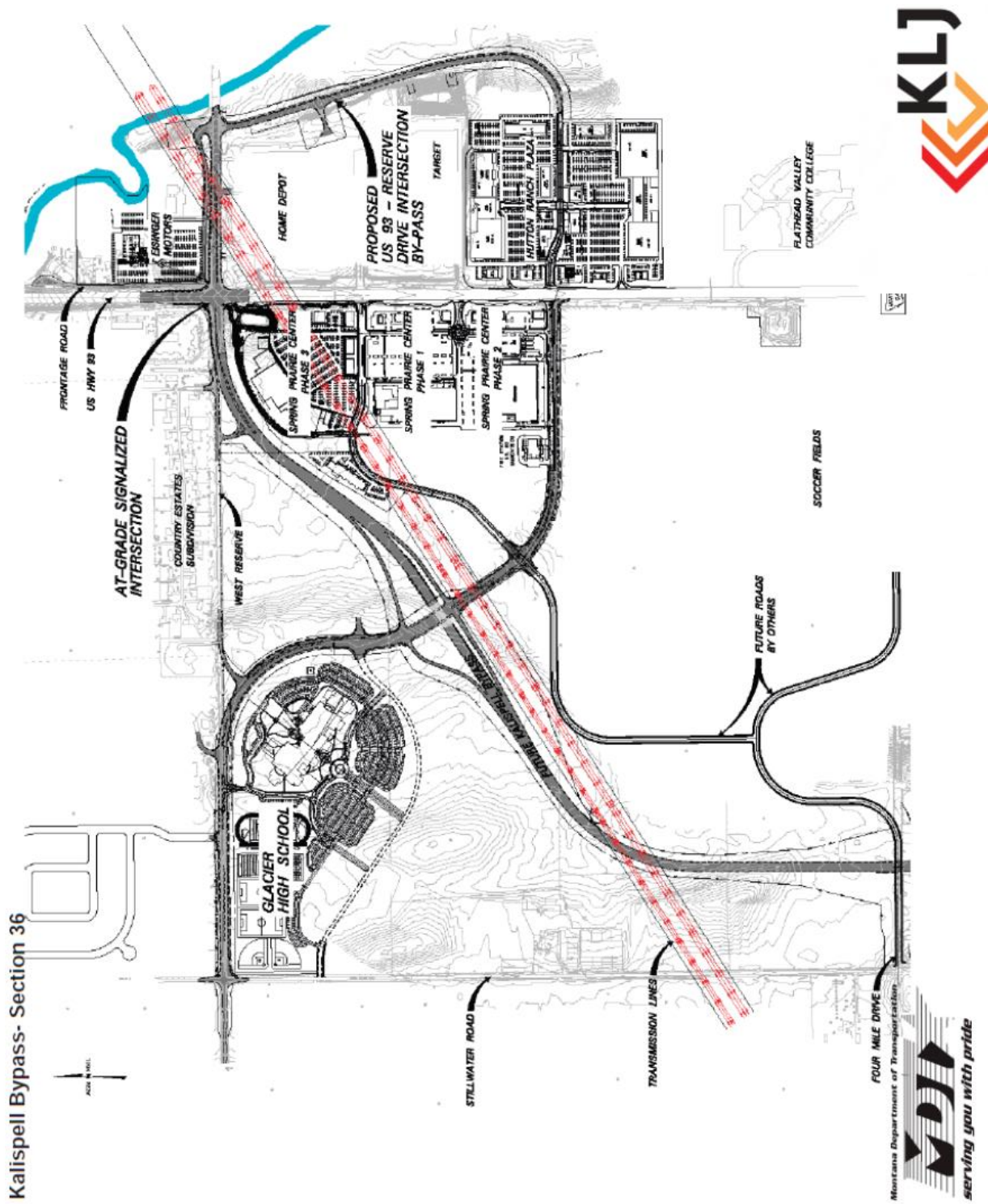
Appendix C
Kalispell Bypass Maps & Location Drawings



Kalispell Bypass- Map Overview







Spring Prairie Trust Lands Development



