Appendix A
Roundabouts: An Informational Guide

THE FOLLOWING TEXT IS EXCERPTED ENTIRELY FROM THE

FEDERAL HIGHWAY ADMINISTRATION ROUNDABOUT GUIDE

Roundabouts: An Informational Guide, U.S. Department of Transportation, Federal Highway Administration Publication No. FHWA-RD-00-067.

1.1.1 Scope of the Guide

Despite the comprehensive nature of this document, it cannot discuss every issue related to roundabouts. In particular, it does not represent the following topics:

Roundabouts with more than two entry lanes on an approach.

While acknowledging the existence and potential of such large roundabouts, the guide does not provide specific guidance on the analysis or design of such roundabouts. However, the design principles contained in this document are also applicable to larger roundabouts. . . . The advantages of larger roundabouts are their higher capacities that may make them attractive alternatives at sites with high traffic volumes. More intricate design is required to ensure adequate operational and safety performance. Therefore expert operations and design advice should be sought and roundabout analysis software should be utilized in such circumstances. As users and designers in the United States become more familiar with roundabouts, this experience may then be extended to such applications. p. 3

Chapter 2. Policy Considerations

Roundabouts have unique characteristics that warrant consideration by developers and managers of the road system. p. 23

2.1.1 Safety

Roundabouts have been demonstrated to be generally safer for motor vehicles and pedestrians than other forms of at-grade intersections. p. 23

If achieved by good design, then in principle, lower vehicle speeds should provide the following safety benefits:

- **Reduce crash severity for pedestrians and bicyclists, including older pedestrians, children, and impaired persons;**

- **Provide more time for entering drivers to judge, adjust speed for, and entire a gap in circulating traffic;**

- **Allow safer merges into circulating traffic;**

- **Provide more time for all users to detect and correct for their mistakes or mistakes of others;**

- **Make the intersection safer for novice users**. p. 24

The number of vehicle-vehicle conflict points for four-leg intersections drops from thirty-two to eight with roundabouts, a 75 percent decrease. Fewer conflict points means fewer opportunities for collisions. . . . The severity of a collision is determines largely by the speed of impact and the angle of impact. The higher the speed, the more severe the collision. The higher the angle of impact, the more severe the collision. Roundabouts reduce in severity or eliminate many severe conflicts that are present in traditional intersections. p. 25

The most severe crashes at signalized intersections occur when there is a violation of the traffic control device designed to separate conflicts by time (e.g., a right-angle collision due to a motorist running a red light, or vehicle-pedestrian collisions.) The ability of roundabouts to reduce conflicts through physical, geometric features has been demonstrated to be more effective than the reliance on driver obedience to traffic control devices. At intersections with more than four legs, a roundabout or pair of roundabouts may sometimes be the most practical alternative to minimize the number of conflicts. p. 26

2.1.2. **Vehicle delay and queue storage**

When operating within their capacity, roundabout intersections typically operate with lower vehicle delays than other intersection forms and control types. With a roundabout, it is unnecessary for traffic to come to a complete stop when no conflicts present themselves, or else deceleration will avoid a conflict. When there are queues on one or more approaches, traffic within the queues usually continues to move, and this is typically more tolerable for drivers than a stopped or standing queue. The performance of roundabouts during off-peak periods is particularly good in contrast to other intersection forms, typically with very low average delays. p. 28

2.1.5 **Environmental factors**

Roundabouts may provide environmental benefits if they reduce vehicle delay and the number and duration of stops compared with an alternative. Even when there are heavy volumes, vehicles continue to advance slowly in moving queues rather than coming to a complete stop. This may reduce noise and air quality impacts and fuel consumption significantly by reducing the number of acceleration/deceleration cycles and the time spent idling.

In general, if stop or yield control is insufficient, traffic through roundabouts generates less pollution and consumes less fuel than traffic at fixed-time signalized intersections. p. 29

2.1.6 **Spatial requirements**

To the extent that a comparable roundabout would outperform a signal in terms of reduced delay and thus shorter queues, it will require less queue storage space on the approach legs. If a signalized intersection requires long or multiple turn lanes to provide sufficient capacity or storage, a roundabout with similar capacity may require less space on the approaches. As a result, roundabouts may reduce the need for additional right-of-way on the links between intersections, at the expense of additional right-of-way requirements at the intersections themselves. . . . The right-of-way savings between intersection may make it feasible to accommodate parking, wider sidewalks, planter strips, wider outside lanes, and/or bicycle lanes in order to better accommodate pedestrians and/or bicyclists. Another space-saving strategy is the use of flared approach lanes to provide additional capacity at the intersection while maintaining the benefit of reduced spatial requirements upstream and downstream of an intersection.

At interchange ramp terminals, paired roundabouts have been used to reduce the number of lanes in freeway over- and underpasses. In compact urban areas, there are typically signalized intersections at both ends of overpass bridges, necessitating two additional overpass lanes to provide capacity and storage at the signalized intersections. p. 29-30.

2.1.7 **Operation and maintenance costs**

Compared to signalized intersections, a roundabout does not have signal equipment that requires constant power, periodic light bulb and detection maintenance, and regular signal timing updates. Roundabouts, however, can have higher landscape maintenance costs, depending ton the degree of landscaping provided on the central island, splitter islands, and perimeter. Illumination costs for roundabouts and signalized intersections are similar. Drivers sometimes face a confusing situation when they approach a signalized intersection during a power failure, but such failures have minimal temporary effect on roundabouts or any other unsignalized intersections, other than the possible loss of illumination. The service life of a roundabout is significantly longer, approximately 25 years, compared with 10 years for a typical signal. p. 30.

2.1.9 **Aesthetics**

Roundabouts offer the opportunity to provide attractive entries or centerpieces to communities. However, hard objects in the central island directly facing the entries are a safety hazard. The portions of the central island and, to a lesser degree, the splitter islands that are not subject to sigh-distance requirements offer opportunities for aesthetic landscaping. Pavement textures can be varied on the aprons as well. . . They can also be used in tourist of shopping areas to facilitate safe U-turns and to demarcate

commercial uses from residential areas. They have been justified as a spur to economic development, conveying to developers that the area is favorable for investment in redevelopment. Some are exhibited as a “signature” feature on community postcards, advertisements, and travelogues. p. 30

2.1.10 **Design for older drivers**

In the United States, there is a trend toward an aging population, as well as individuals continuing to drive until an older age. . . Roundabouts designed for low, consistent speeds cater to the preferences of older drivers: slower speeds, time to make decisions, act, and react; uncomplicated situations to interpret; simple decision-making; a reduced need to look over one’s shoulder; a reduced need to judge closing speeds of fast traffic accurately; and a reduced need to judge gaps in fast traffic accurately. For example, two-way step controlled intersections may be appropriate for replacement with a roundabout when a crash analysis indicates that age-related collisions are prevalent. p. 31-32

2.2.5 **Emergency vehicles**

Roundabouts provide emergency vehicles the benefit of lower vehicle speeds, which may make roundabouts safer for them to negotiate than signalized crossings. Unlike at signalized intersections, emergency vehicle drivers are not faced with through vehicles unexpectedly running the intersection and hitting them at high speed. p. 35

2.3 **Costs Associated with Roundabouts**

Many factors influence the amount of economic investment justified for any type of intersection. Costs associated with roundabouts include construction costs, engineering and design fees, land acquisition, and maintenance costs. Benefits may include reduced crash rates and severity, reduced delay, stops, fuel consumption, and emissions. . . .

At new sites, and at signalized intersections that require widening at one or more approaches to provide additional turn lanes, a roundabout can be a comparable or less expensive alternative. While roundabouts typically require more pavement area at the intersection, they may require less pavement width on the upstream approaches and downstream exits if multiple turn lanes associated with a signalized intersection can be avoided. The cost savings of reduced approach roadway widths is particularly advantageous at interchange ramp terminals and other intersections adjacent to grade separations where wider roads may result in larger bridge structures. . . .

Recent roundabout projects in the United States have shown a wide range in reported construction costs. Assuming “1988 U.S. Dollars” in the following examples, costs ranged from $10,000 for a retrofit application of an existing traffic circle to $500,000 for a new roundabout at the junction of two State highways. National Cooperative Highway Research Program (NCHRP) Synthesis 264 reports that the average construction cost

of 14 U.S. roundabouts, none being part of an interchange, was approximately $250,000. This amount includes all construction elements, but does not include land acquisition. p. 36

2.5 **Public Involvement**

[A] proposal to install a roundabout may initially experience a negative public reaction. However, the history of the first few roundabouts installed in the United States also indicates that the public attitude toward roundabouts improves significantly after construction. A recent survey conducted of jurisdictions across the United States reported a significant negative public attitude toward roundabouts prior to construction (68 of the response were negative or very negative), but a positive attitude after construction (73 percent of the responses were positive or very positive). p. 40

Chapter 3. **Planning**

3.4.4 **Operational Improvement**

A roundabouts will always provide a higher capacity and lower delays than AWSC (All Way Stop Controls) operating with the same traffic volumes and right-fo-way-limitations. . . . A roundabout that operates within its capacity will generally produce lower delays than a signalized intersection operating with the same traffic volumes and right-of-way limitations. p. 62

3.5.3 **Signal control alternative**

When traffic volumes are heavy enough to warrant signalization, the selection process becomes somewhat more rigorous. The usual basis for selection here is that a roundabout will provide better operational performance than a signal in terms of stops, delay, fuel consumption, and pollution emissions. For planning purposes, this may generally be assumed to be the case provided that the roundabout is operating within its capacity. The task then becomes to assess whether any roundabout configuration can be made to work satisfactorily. If not, then a signal or grade separation are remaining alternatives. As in the case of stop control, intersections with heavy left turns are especially good roundabout candidates. . . . As in the case of AWSC (All Way Stop Control) operations, some of the most important benefits of a roundabout compared to a traffic signal will accrue during off-peak periods. p. 67-68

Chapter 4. **Operation**

4.5 **Computer Software for Roundabouts**

While the procedures provided in this chapter are recommended for most applications covered by this guide, models such as ARCADY, RODEL, SIDRA, KREISEL, or GIRABASE may be consulted to determine the effects of geometric parameters,

particularly for multilane roundabouts outside the realm of this guide, or for fine-tuning designs to improve performance. p. 96

Chapter 6. **Geometric Design**

6.3.10 **Intersection sight distance**

Intersection sight distance is the distance required for a driver without the right of way to perceive and react to the presence of conflicting vehicles. . . . At roundabouts, the only locations requiring evaluation of intersection sight distances are the entries. . . . British research on sight distance determined that excessive intersection sight distance resulted in a higher frequency of crashes. This value, consistent with British and French practice, is intended to require vehicles to slow down prior to entering the roundabouts, which allows them to focus on the pedestrian crossing prior to entry. If the approach leg of the sight triangle is greater than 15 m (49 ft), it may be advisable to add landscaping to restrict sight distance to the minimum requirements. . . . Excessive intersection sight distance can lead to higher vehicle speeds and reduce the safety of the intersection for all road users (vehicles, bicycles, pedestrians.) p. 161-163

Chapter 8. **Systems Considerations**

8.5.3 **Wide roads and narrow roads**

The ultimate manifestation of roundabouts in a system context is to use them in lieu of signalized intersections. Some European cities such as Nantes, France, and some Australian cities have implemented such a policy. It is generally recognized that intersections (or nodes), not road segments (or links), are typically the bottlenecks in urban roadway networks. A focus on maximizing intersection capacity rather than widening streets may therefore be appropriate. Efficient, signalized intersections, however, usually require that exclusive turn lanes be provided, with sufficient storage to avoid queue spillback into through lanes and adjacent intersections. In contrast, roundabouts may require more right-of-way at the nodes, but this may be offset by not requiring as many basic lanes on the approaches, relative to signalized arterials. p. 225

Appendix B
Technical Memorandum

Alternatives Design Criteria Technical Memorandum for Russell and South 3rd Street EIS

July 16, 2008

Prepared By:

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TABLE OF CONTENTS

I. Introduction

This technical memorandum presents the typical section and design assumptions for all alternatives on the Russell Street and South 3rd Street Improvements. It must be recognized that the criteria presented in this memorandum are the design criteria we will strive to achieve; however, during the life of the project, physical and/or political features may force deviation from the criteria in certain areas of these corridors.

II. Design Assumptions Common to All Build Alternatives

The following design assumptions are used for all alternatives:

- The existing Russell Street Bridge would be removed and replaced with a four-lane bridge to provide adequate capacity for projected traffic volumes.
- Bicycle lanes would be included to improve multi-modal transportation in the corridors.
- Sidewalks would be constructed along both sides of each route to improve pedestrian comfort and safety.
- Grade separated pedestrian/bicycle crossings would be provided for the Milwaukee Corridor Trail and Bitterroot Branch Trail systems as they cross Russell Street.
- Curb and gutter would be included to improve storm water management.
- Street lighting would be included to improve aesthetics and safety.
- Landscaped boulevards would be constructed on both sides of Russell Street and South 3rd Street between the curb and sidewalk to improve aesthetics and provide snow storage.
- Bus pullouts would be incorporated into the final design along Russell Street north of South 3rd Street, and along South 3rd Street from Russell Street to Reserve Street. The transit system currently does not serve Russell Street south of South 3rd Street, so no pullouts are currently planned for that portion of the corridor. (Possible Future Expansion)
- On-street parking within the City right-of-way is currently prohibited along Russell Street and South 3rd Streets. Parking restrictions would be perpetuated in these areas for the proposed designs.
- Longstaff Street would be restricted to a right-in and right-out only connection with Russell Street.
- Lawrence Street would be realigned to a right-angle intersection with Russell Street.
- Access to Russell Street from Harlem Street and Kern Street on the east side of Russell Street would be restricted to a right-in and right-out only connection.
- Addison Street would be realigned to a right-angle intersection with Russell Street opposite from South 8th Street. Addison Street and South 8th Street would be restricted to right-in and right-out only connections with Russell Street.
- River Road would remain in its current configuration and would be restricted to a right-in and right-out connection with Russell Street. In addition, right-of-way would be purchased for the construction of a new link between River Road and Idaho Street that would become part of the future River Road connection to Russell Street via Wyoming Street. The future connection would include a newly constructed section of road running north-south adjacent to the western boundary of Mobile City Trailer between existing

River Road and Idaho Street. It would also include reconstructed sections of Idaho Street between the new River Road and Catlin Street; Catlin Street between Idaho Street and Wyoming Street; and Wyoming Street between Catlin Street and Russell Street.

III. Typical Sections for the Russell Street Alternatives

Table 1 outlines the standard section widths

Table 1. Russell Street Standard Section Widths

		Outside Lane	**Inside Lane**	**Bike Lane**	**Raised Median**	**TWLTL**	**Curb & Gutter**	**Boulevard**	**Sidewalks**
Alternative	**2**	12‘	N/A	4‘	N/A	12‘	2‘	7’	5’
	3	12’	N/A	4’	12’	12‘	2’	7’	5’
	4	12’	11’	4’	12’	12‘	2’	7’	5’
	5	12’	11’	4’	12’	12‘	2’	7’	5’
	5 Refined	12’	11’	4’	12’	12‘	2’	7’	5’

-Includes Alignment Shift in Southern Portion

Alternative 1 – No Build Option

The No-Build Alternative would provide no improvements to Russell Street.

Alternative 2 – 2+ Lanes with Roundabouts

Alternative 2 is very similar to the existing condition in lane configuration but includes the use of roundabouts at select intersections and limited use of raised medians to control through traffic and increase the functionality of the intersections and roundabouts.

Figure 2-5 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Two travel lanes from Mount Avenue/South 14th Street to South 5th Street
Four travel lanes from South 5th Street to South 3rd Street
Two travel lanes from South 3rd Street to Wyoming Street
Four travel lanes from Wyoming Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

Mount Avenue/South 14th Street
South 5th Street
South 3rd Street
Wyoming Street

Single-Lane Roundabouts at:

South 11th Street

Signal Control at:

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs.

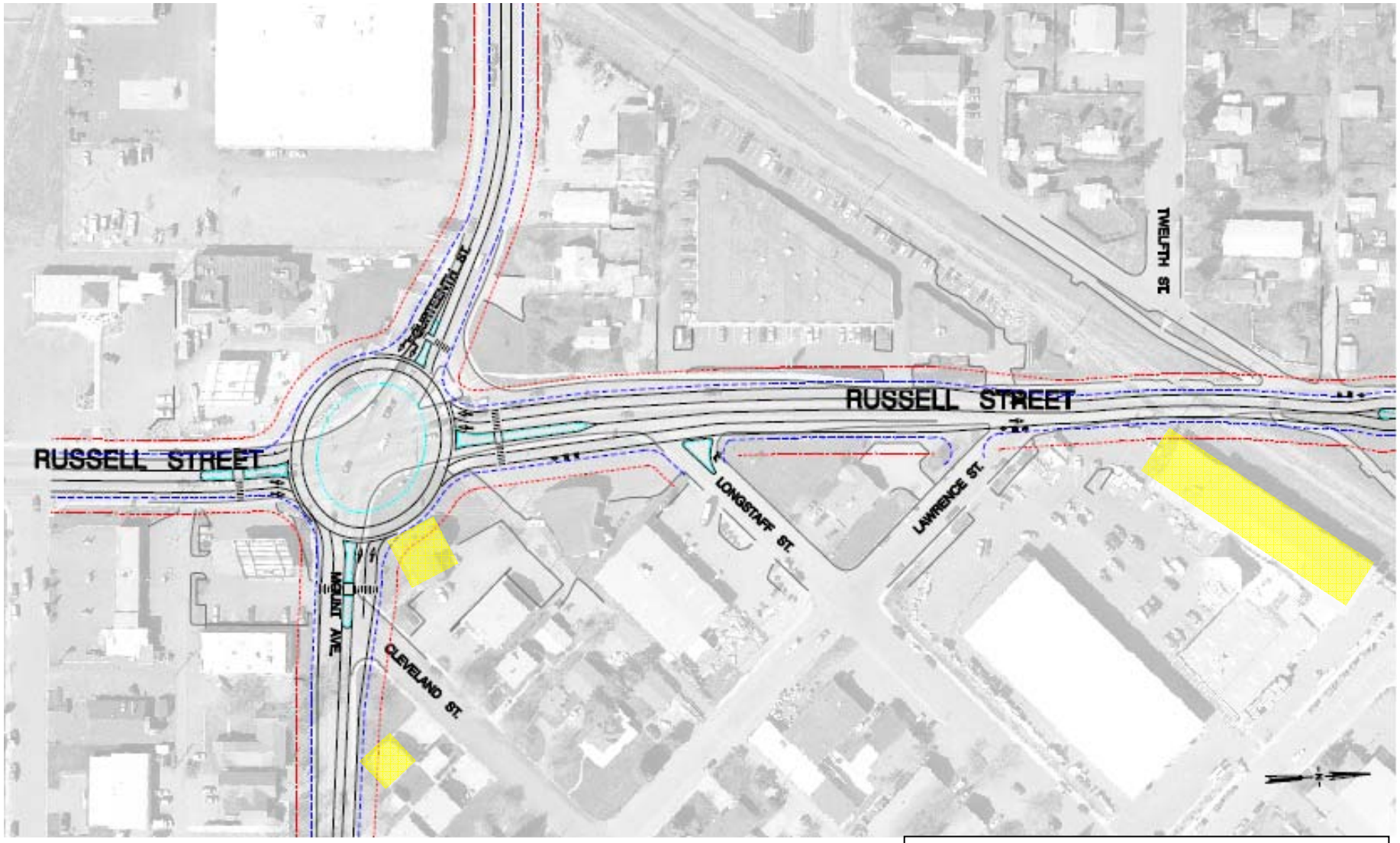
Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

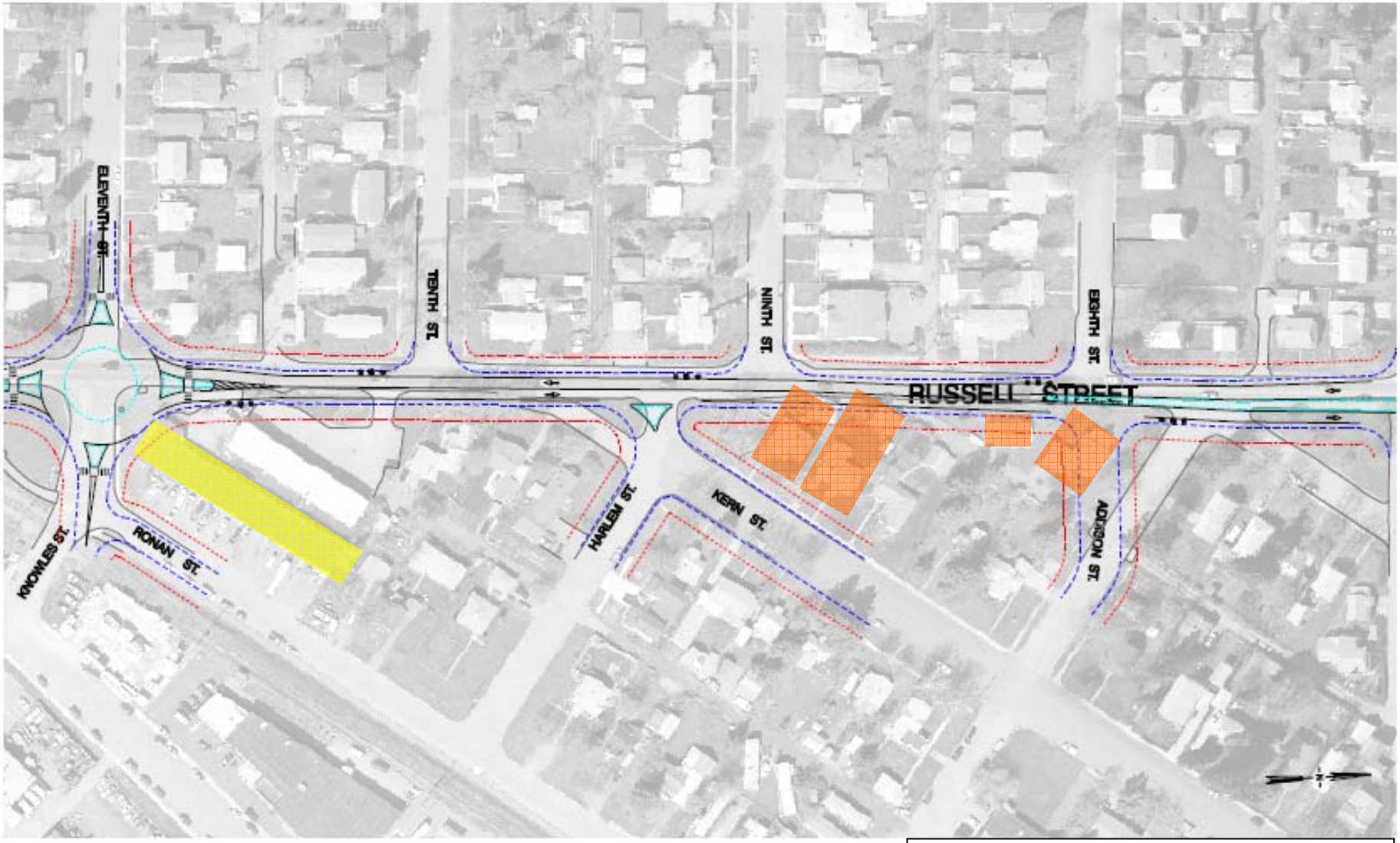
Alignment:

The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on historic and recreational properties protected under Section 4(f) of the U.S. Department of Transportation Act, as discussed in Chapter 5 of this document.

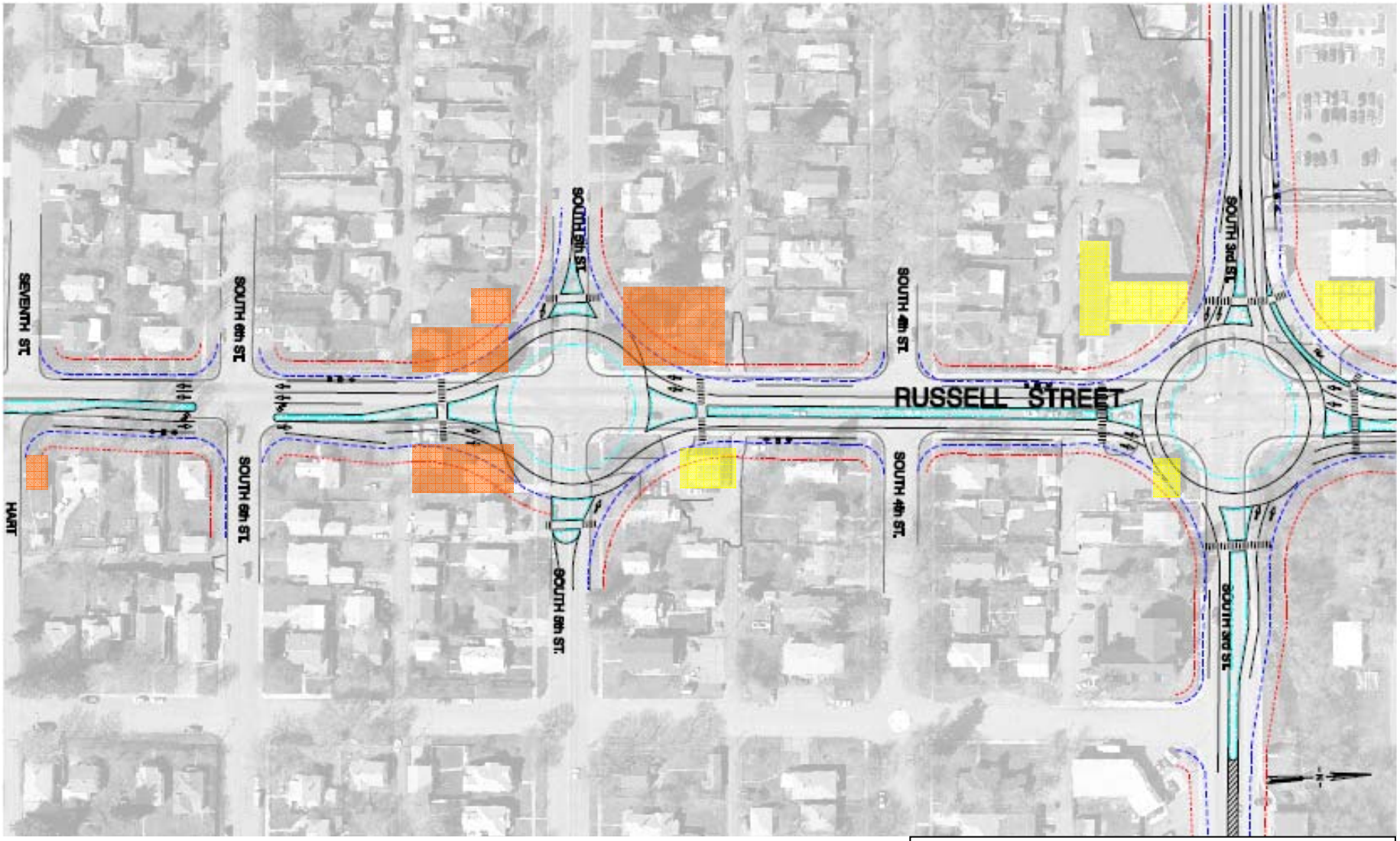
Russell Street Alternative 2



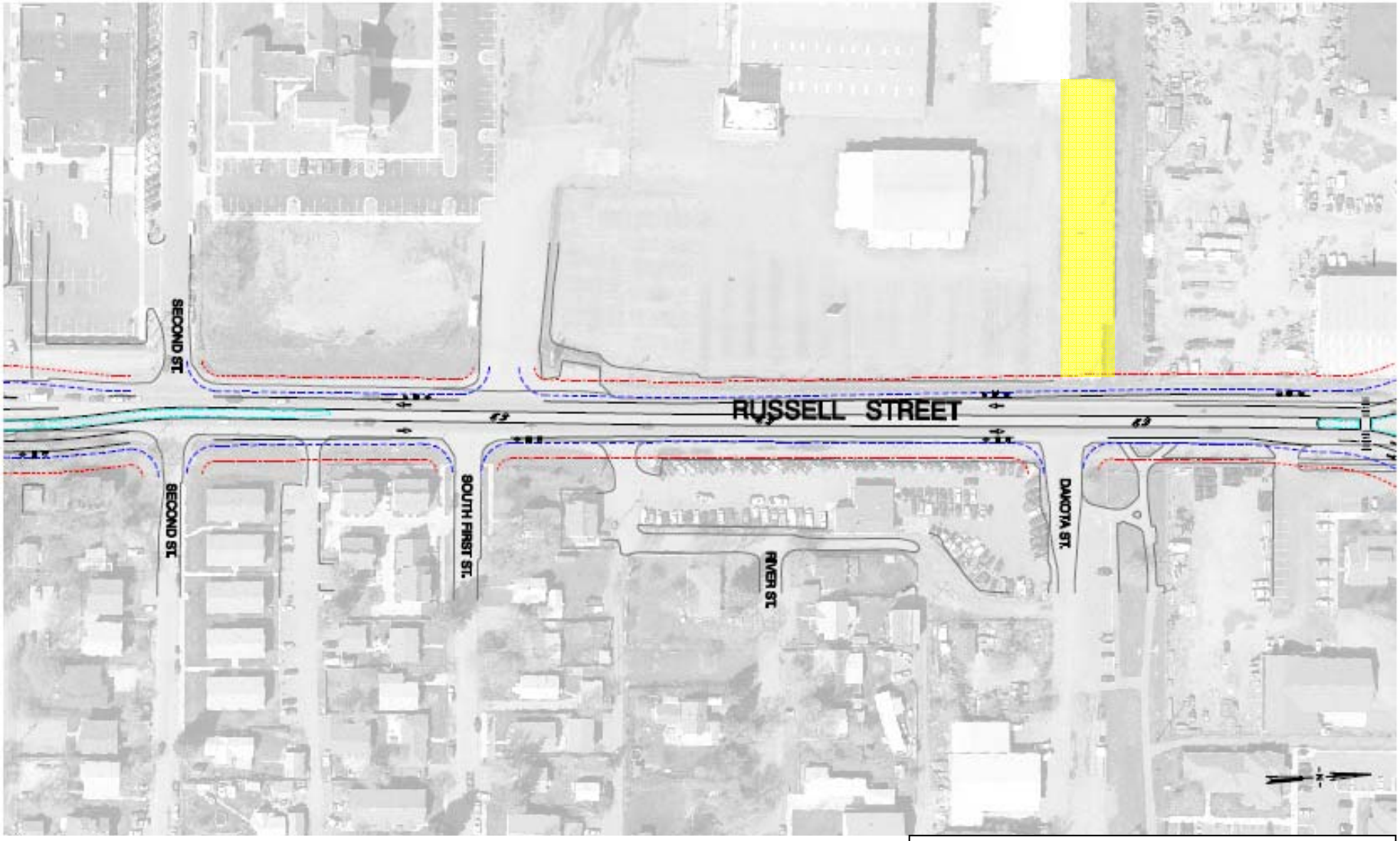
Russell Street Alternative 2



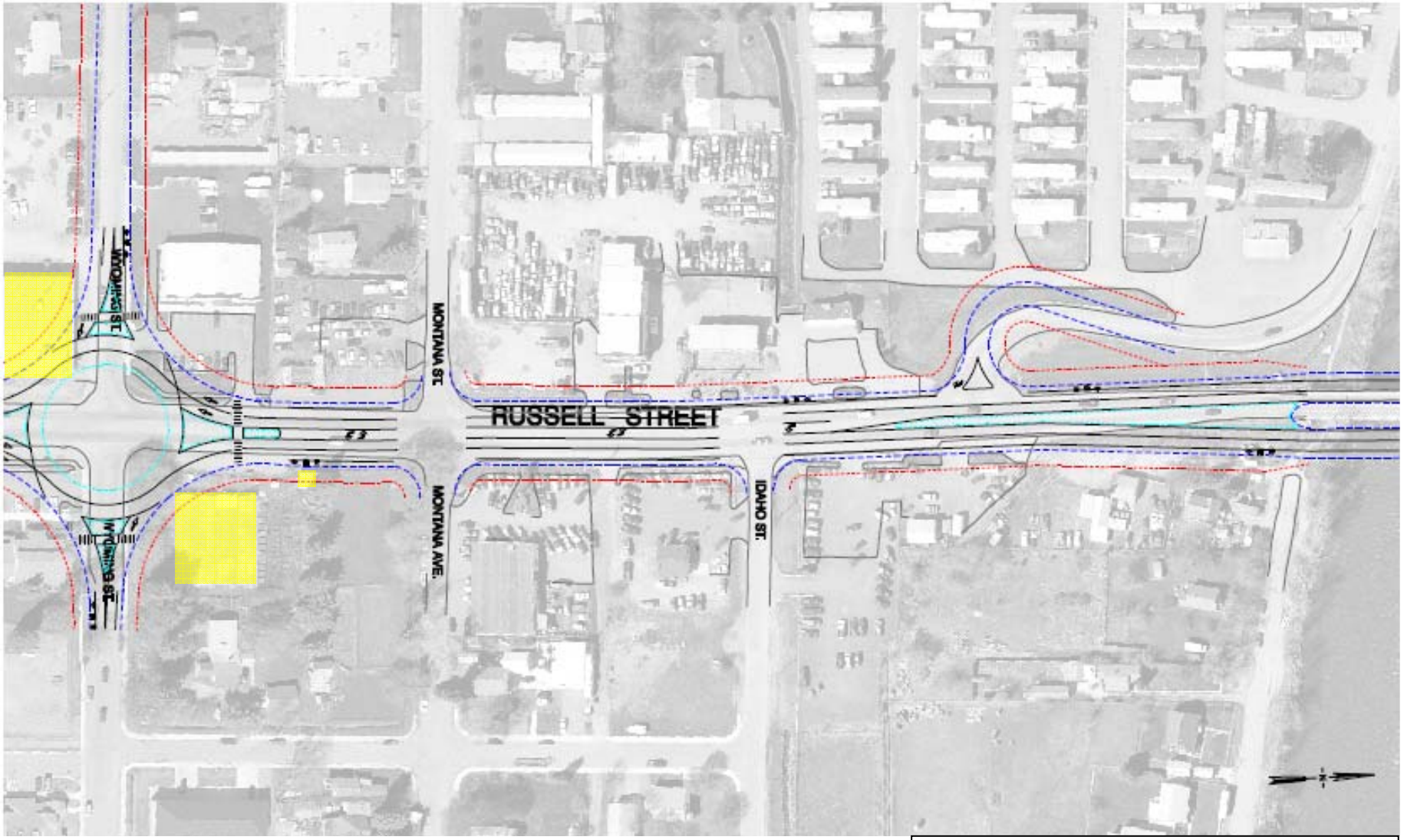
Russell Street Alternative 2



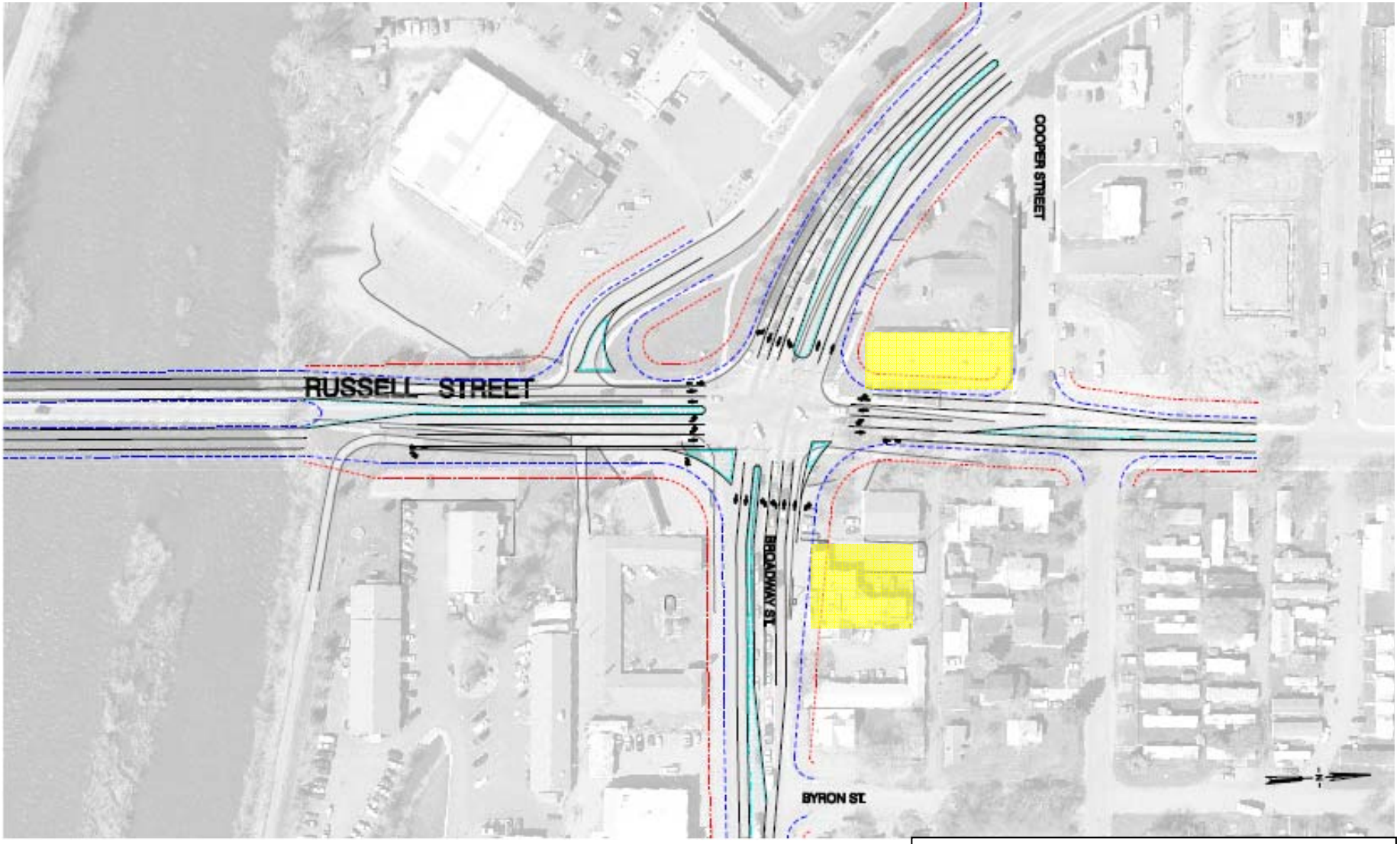
Russell Street Alternative 2



Russell Street Alternative 2



Russell Street Alternative 2



Residential Impacts under Alternative 2

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
Russell Street				
1508 5th St.	521 Russell St.	1431 3rd St.	1427 2nd St. W	1501 S. 7th St.
1445 5th St.	1425 5th St.	1436 4th. St. W	1510 S. 5th St.	915 Russell St.
1501 5th St.	802 Russell St.	1501 4th St. W	1439 5th St.	1500 8th St. W
1509 5th St.	738 Russell Street	1439 4th St. W	1502 6th St. W	1501 9th St. W
824 Russell St.		1500 11th St. W	1501 6th St. W	1135 10th St. W
1000 Russell St.			808 Russell St.	1501 S. 10th St.
1010 Russell St.			1500 7th St. W	1501 11th St.
935 Kern St.			820 Russell St.	1501 Russell St.
941 Kern St.			1016 Kern St.	

Commercial Impacts under Alternative 2

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
Russell Street				
1500 Broadway St.	1407 River Rd.	1427 W. Broadway St.	1540 Broadway St.	1417 3rd St.
1440 Broadway St.	1503 Russell St.	1451 Broadway St.	215 Russell St.	1440 Russell St.
1400 Wyoming St.	140 Russell St.	1120 Russell St.	1007 Mount Ave.	
1515 Wyoming St.	Mount and Russell St.			
121 Russell St.				
403 Russell St.				
500 Russell St.				
501 Russell St.				
1440 5th St.				
1035 Ronan St.				
Montana Rail Link				
1208 Mount Ave.				
1520 Russell St.				

Montana Department of Transportation

Bid Prices Jul06-Jan07

Preliminary Estimate

Project Title:	Russell St. - Missoula (EIS)	Prepared by:	HKM Engineering Inc.
Project Number:	Alternative 2	Date:	June 14, 2007
Project Length:	2,700 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	4123	D.A. Approval.:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	$5,000.00	$10,000.00		$10,000.00
202013000	24	REMOVE STRUCTURE	EACH	$50,000.00	$1,200,000.00		$1,200,000.00
202110000	250	REMOVE CONCRETE PAVEMENT	M2	$11.35	$2,838.00		$2,838.00
202120000	46,500	REMOVE BITUMINOUS PAVEMENT	M2	$2.18	$101,370.00		$101,370.00
202230000	3,500	REMOVE CURB & GUTTER	M	$57.03	$199,605.00		$199,605.00
202241000	3,100	REMOVE SIDEWALK	M2	$13.86	$42,966.00		$42,966.00
203120000	39,139	EXCAVATION-STREET	M3	$18.91	$740,118.00		$740,118.00
203300000	68,663	EMBANKMENT IN PLACE	M3	$7.18	$493,000.00		$493,000.00
301270000	27,264	CRUSHED AGGREGATE COURSE	M3	$28.14	$767,209.00		$767,209.00
301440020	59,270	COVER - TYPE 2	M2	$0.76	$45,045.00		$45,045.00
401080000	13,554	PLANT MIX BIT SURF GR S - 19 MM	MT	$24.13	$327,058.00		$327,058.00
401100000	108	DUST PALLIATIVE	MT	$155.97	$16,845.00		$16,845.00
401200000	190	HYDRATED LIME	MT	$150.72	$28,637.00		$28,637.00
402097000	731	ASPHALT CEMENT PG 70-28	MT	$481.02	$351,626.00		$351,626.00
402225000	118	EMULSIFIED ASPHALT CRS-2P	MT	$447.98	$52,862.00		$52,862.00
557310000	250	PEDESTRIAN RAIL	M	$250.00	$62,500.00		$62,500.00
606000000	125	GUARD RAIL-STEEL	M	$52.49	$6,561.00		$6,561.00
608100000	7,896	SIDEWALK-CONCRETE 100 MM	M2	$56.79	$448,414.00		$448,414.00
608150000	1,077	SIDEWALK-CONCRETE 150 MM	M2	$95.70	$103,069.00		$103,069.00
608290100	142	TRUNCATED DOMES	M2	$534.27	$75,866.00		$75,866.00
608500100	2,750	CONCRETE 100 MM	M2	$69.38	$190,795.00		$190,795.00
609000000	7,450	CURB & GUTTER-CONCRETE	M	$68.70	$511,815.00		$511,815.00
610300000	30,000	SODDING	M2	$10.66	$319,800.00		$319,800.00
614000000	1,500	RETAINING WALL	M2	$521.55	$782,325.00		$782,325.00
619690000	100	SIGN - INSTALL	EACH	$1,250.00	$125,000.00		$125,000.00
619700000	100	REMOVE SIGNS	EACH	$40.90	$4,090.00		$4,090.00
620010000	460	STRIPING-WHITE PAINT	L	$5.91	$2,660.00		$2,660.00
620020000	330	STRIPING-YELLOW PAINT	L	$6.96	$2,297.00		$2,297.00
620045000	670	YELLOW CURB MARKING EPOXY	L	$69.43	$46,518.00		$46,518.00
620110000	450	STRIPING-WHITE EPOXY	L	$13.72	$6,174.00		$6,174.00
620120000	330	STRIPING-YELLOW EPOXY	L	$13.62	$4,495.00		$4,495.00
620130000	110	WORDS/SYMBOLS-WHITE EPOXY	L	$69.69	$7,666.00		$7,666.00
621421000	45	ADJUST DROP INLET	EACH	$1,400.00	$63,000.00		$63,000.00
621430000	47	ADJUST MANHOLES	EACH	$557.09	$26,183.00		$26,183.00
621440000	8	ADJUST FIRE HYDRANT	EACH	$1,550.00	$12,400.00		$12,400.00
855000100	1	LANDSCAPING	LS	$25,000.00	$25,000.00		$25,000.00
	1	Irrigation Structure	LS	$300,000.00	$300,000.00		$300,000.00
	31	Adjust Water Valve	EACH	$325.00	$10,075.00		$10,075.00
	1	Bridge over Clark Fork River	LS	$7,220,000.00	$7,220,000.00		$7,220,000.00
	2	Railroad Gates	EACH	$180,000.00	$360,000.00		$360,000.00
	34	Railroad Gate Concrete Crossing Surface	M	$3,281.00	$111,160.00		$111,160.00
	3	Roundabout Intersections	EACH	$400,000.00	$1,200,000.00		$1,200,000.00
	1	Elliptical Roundabout		$450,000.00	$450,000.00		$450,000.00
	1	Small Roundabout		$300,000.00	$300,000.00		$300,000.00
	1	Signalized Intersections	EACH	$250,000.00	$250,000.00		$250,000.00
	38	Dry Wells	EACH	$10,000.00	$380,000.00		$380,000.00
	1	Knowles Pedestrian Tunnel	LS	$701,643.00	$701,643.00		$701,643.00
	1	Dakota Pedestrian Tunnel	LS	$244,000.00	$244,000.00		$244,000.00
	1	Wyoming St. Addition	LS	$969,593.00	$969,593.00		$969,593.00
		Subtotal			$19,702,278.00		$19,702,278.00
	8%	Mobilization			$1,576,182.24		$1,576,182.24
		Subtotal			$21,278,460.24		$21,278,460.24
	25%	Contingency			$5,319,615.06		$5,319,615.06
		Subtotal			$26,598,075.30		$26,598,075.30
	3%	Inflation	Years	3.00	$2,466,359.73		$2,466,359.73
		Construction Total			$29,064,435.03		**$29,064,435.03**
	15%	**Construction Engineering**			$4,359,665.25		$4,359,665.25
		Total Construction			$33,424,100.28		**$33,424,100.28**
	16,463	Right-Of-Way	M2	$130.00	$2,140,190.00		$2,140,190.00
	1	Right-Of-Way (Compensation for Structures)	LS	$5,781,322.00	$5,781,322.00		$5,781,322.00
		Total Right of Way					**$7,921,512.00**
		Total Construction + ROW					**$41,346,612.28**

Project Length	km	2.70			
Average Project Finish Top Width	m	25.00			
Cost per Kilometer (Uses Construction Total)					$10,764,605.57

Alternative 3 - 2+/4 Lanes with Roundabouts

Alternative 3 is similar to Alternative 2 in terms of lane configuration and intersection control but includes twice the length of raised median as compared to Alternative 2, and adds a median between Mount Avenue to South 8th Street. Figure 2-6 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Two travel lanes from Mount Avenue/South 14th Street to South 5th Street
Four travel lanes from South 5th Street to South 3rd Street
Two travel lanes from South 3rd Street to Wyoming Street
Four travel lanes from Wyoming Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

Mount Avenue/South 14th Street
South 5th Street
South 3rd Street
Wyoming Street

Single-Lane Roundabouts at:

South 11th Street

Signal Control at:

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs.

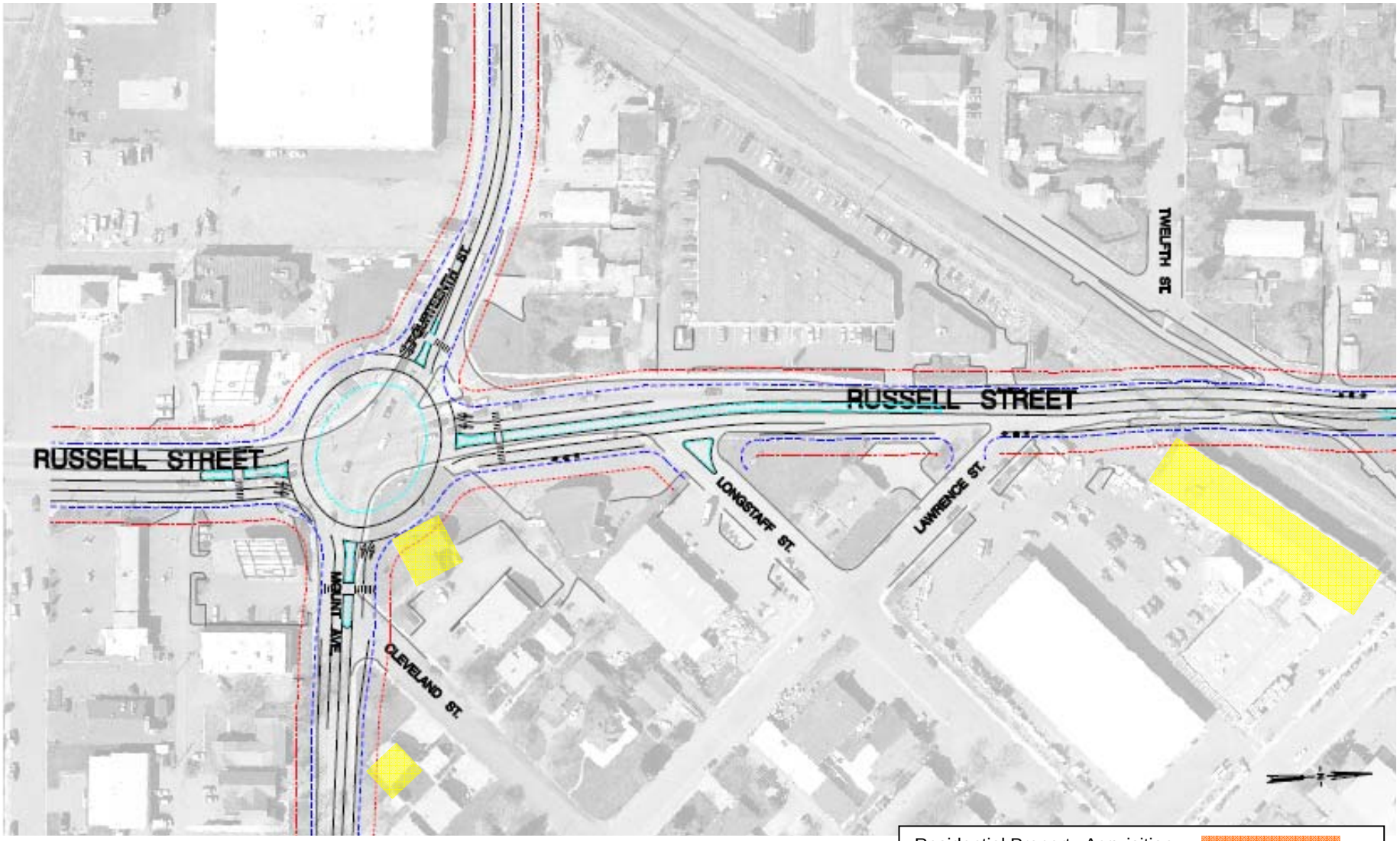
Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

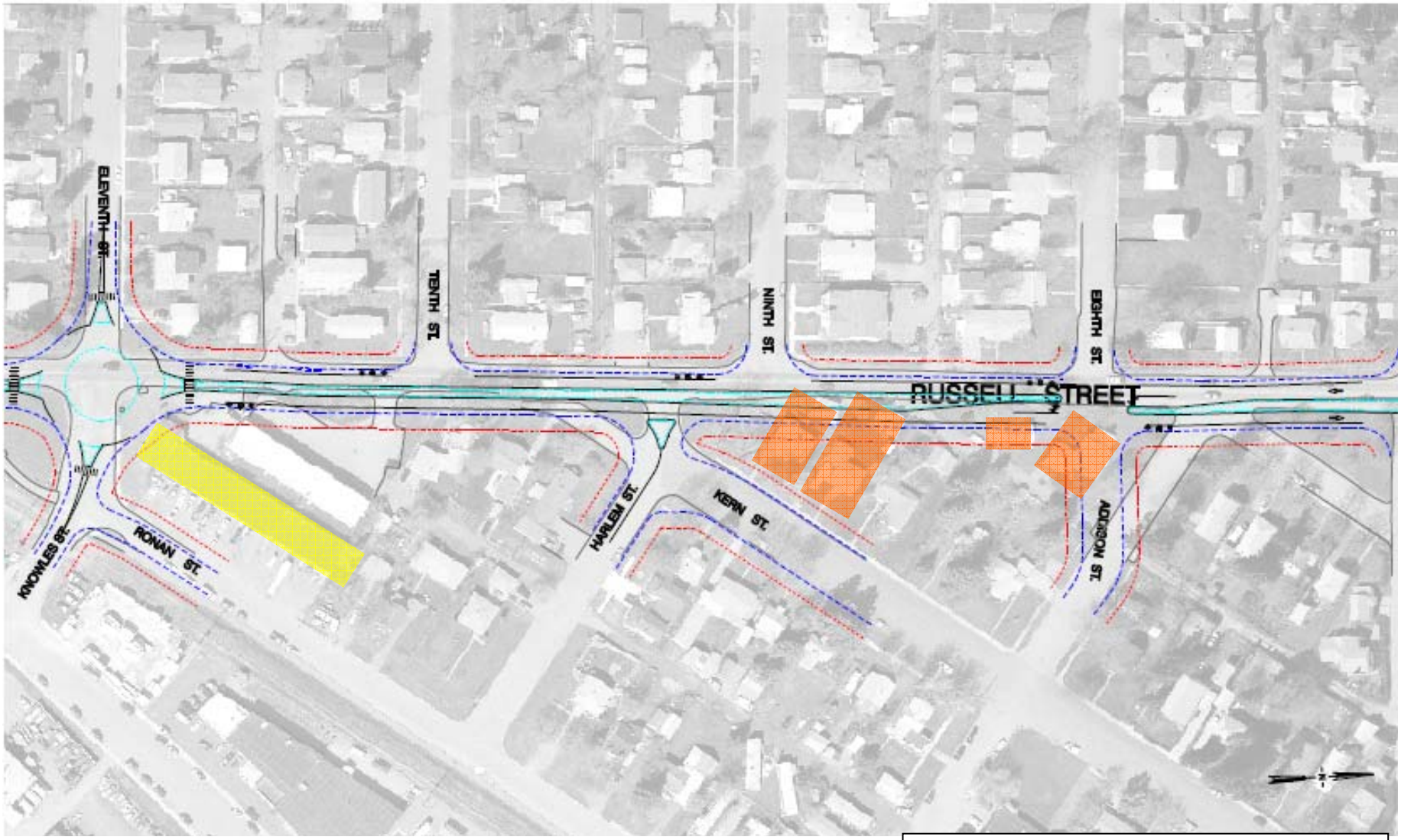
Alignment:

The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on properties protected under Section 4(f).

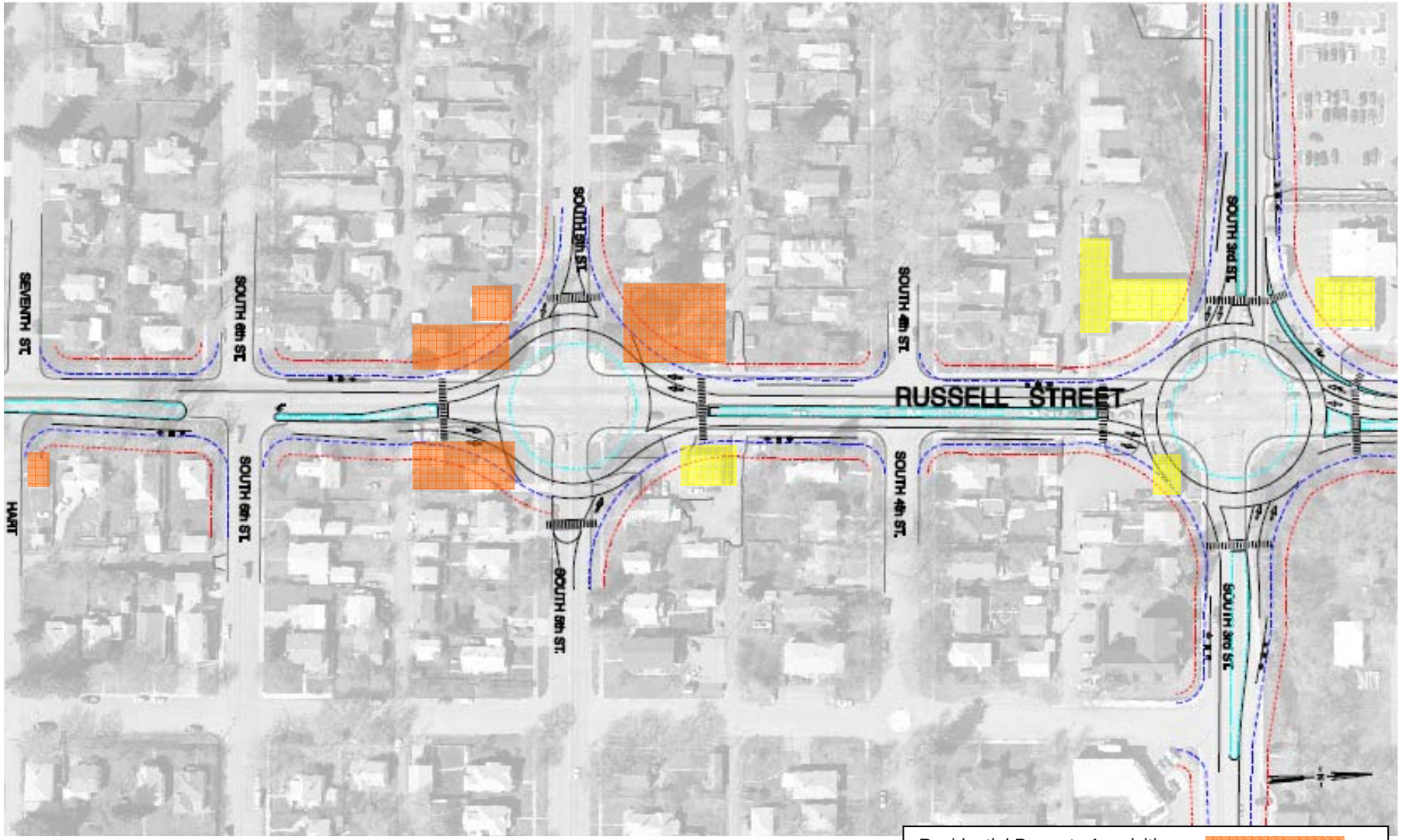
Russell Street Alternative 3



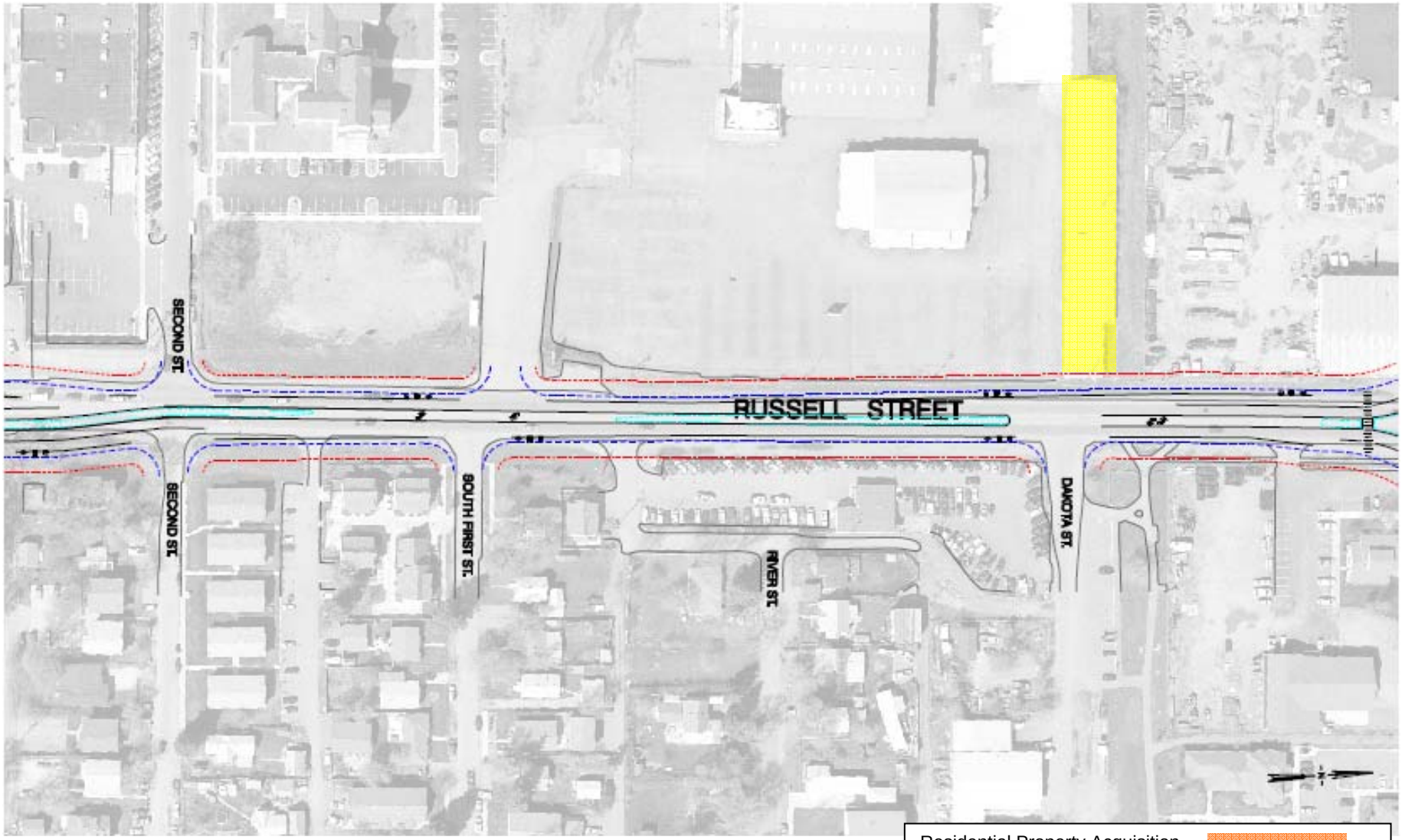
Russell Street Alternative 3



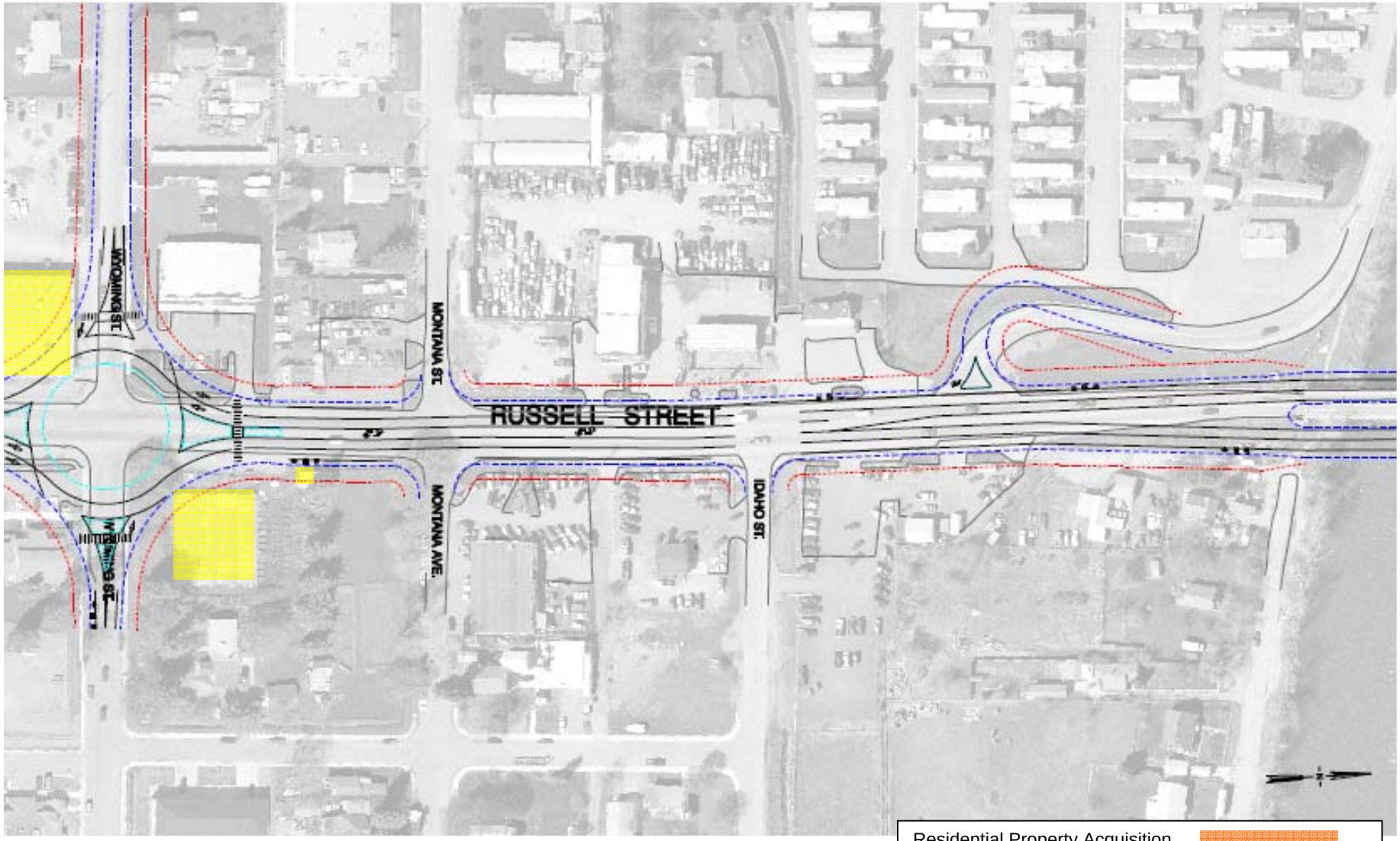
Russell Street Alternative 3



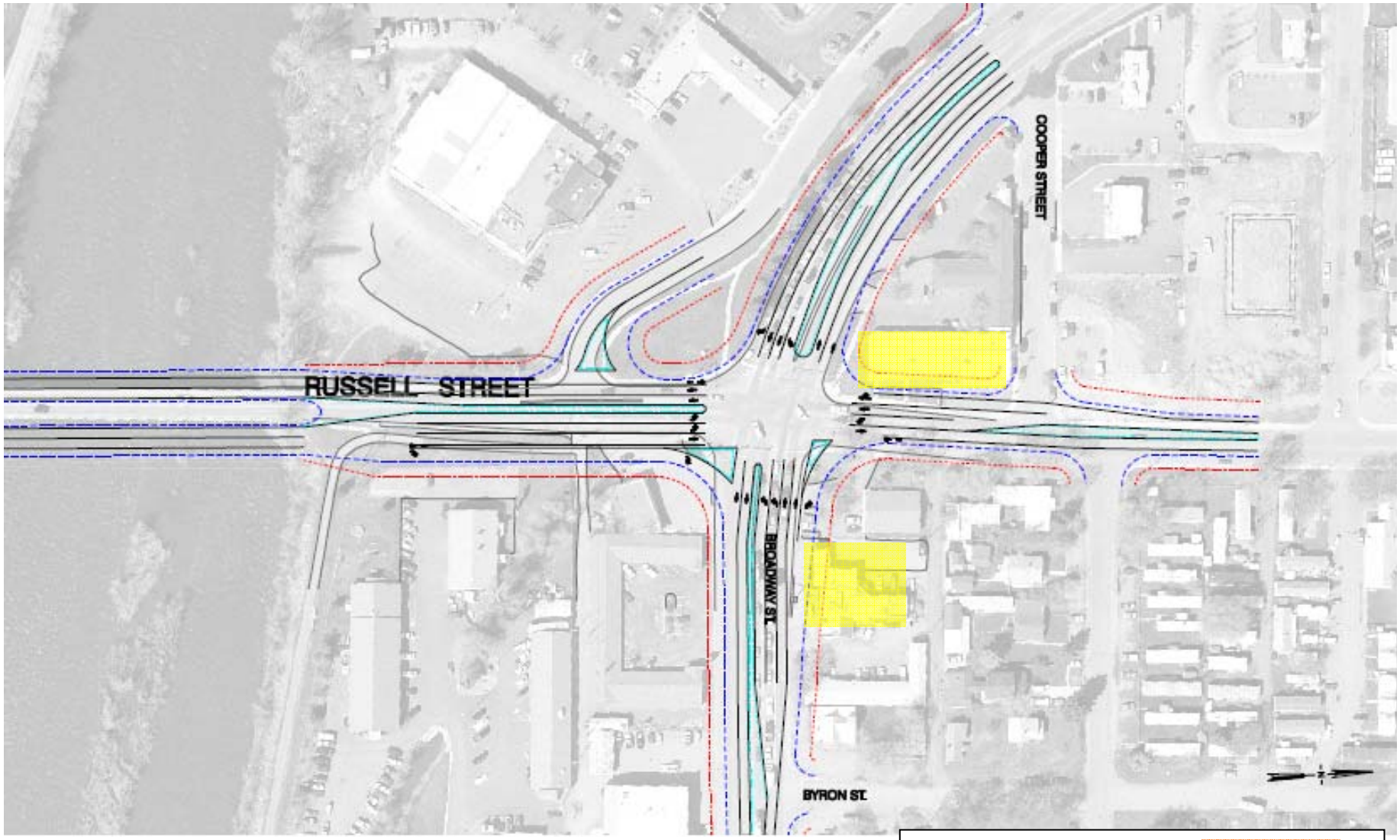
Russell Street Alternative 3



Russell Street Alternative 3



Russell Street Alternative 3



Residential Impacts under Alternative 3

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
Russell Street				
1508 5th St.	1016 Kern St.	1431 3rd St.	1510 S. 5th St.	1501 S. 7th St.
1445 5th St.	521 Russell St.	1436 4th. St. W	1439 5th St.	915 Russell St.
1501 5th St.	1425 5th St.	1501 4th St. W	1502 6th St. W	1500 8th St. W
1509 5th St.	802 Russell St.	1439 4th St. W	1501 6th St. W	1501 9th St. W
824 Russell St.		738 Russell St.	808 Russell St.	1135 10th St. W
1000 Russell St.		915 Kern St.	1500 7th St. W	1501 S. 10th St.
1010 Russell St.		1500 11th St. W	820 Russell St.	
935 Kern St.			1012 Kern St.	
941 Kern St.			1501 11th St.	

Commercial Impacts under Alternative 3

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
Russell Street				
1500 Broadway St.	1120 Russell St.	1427 W. Broadway St.	1540 Broadway St.	1417 3rd St.
1440 Broadway St.	1407 River Rd.	1451 Broadway St.	215 Russell St.	1516 12th St.
1400 Wyoming St.	1503 Russell St.	Mount and Russell St.	1427 2nd St. W	1500 Russell St.
1515 Wyoming St.	140 Russell St.		1440 Russell St.	
121 Russell St.			1007 Mount Ave.	
403 Russell St.				
500 Russell St.				
501 Russell St.				
1440 5th St.				
1035 Ronan St.				
Montana Rail Link				
1208 Mount Ave.				
1520 Russell St.				

Montana Department of Transportation

Bid Prices
Jul06-Jan07

Preliminary Estimate

Project Title:	Russell St. - Missoula (EIS)	Prepared by:	HKM Engineering Inc.
Project Number:	Alternative 3	Date:	June 14, 2007
Project Length:	2,700 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	4123	D.A. Approval.:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	$5,000.00	$10,000.00		$10,000.00
202013000	24	REMOVE STRUCTURE	EACH	$50,000.00	$1,200,000.00		$1,200,000.00
202110000	250	REMOVE CONCRETE PAVEMENT	M2	$11.35	$2,838.00		$2,838.00
202120000	46,500	REMOVE BITUMINOUS PAVEMENT	M2	$2.18	$101,370.00		$101,370.00
202230000	3,500	REMOVE CURB & GUTTER	M	$57.03	$199,605.00		$199,605.00
202241000	3,100	REMOVE SIDEWALK	M2	$13.86	$42,966.00		$42,966.00
203120000	39,000	EXCAVATION-STREET	M3	$18.91	$737,490.00		$737,490.00
203300000	64,000	EMBANKMENT IN PLACE	M3	$7.18	$459,520.00		$459,520.00
301270000	27,970	CRUSHED AGGREGATE COURSE	M3	$28.14	$787,076.00		$787,076.00
301440020	60,800	COVER - TYPE 2	M2	$0.76	$46,208.00		$46,208.00
401060000	13,906	PLANT MIX BIT SURF GR S - 19 MM	MT	$24.13	$335,552.00		$335,552.00
401100000	111	DUST PALLIATIVE	MT	$155.97	$17,313.00		$17,313.00
401200000	195	HYDRATED LIME	MT	$150.72	$29,390.00		$29,390.00
402097000	751	ASPHALT CEMENT PG 70-28	MT	$481.02	$361,246.00		$361,246.00
402225000	112	EMULSIFIED ASPHALT CRS-2P	MT	$447.98	$50,174.00		$50,174.00
557310000	250	PEDESTRIAN RAIL	M	$250.00	$62,500.00		$62,500.00
606000000	125	GUARD RAIL-STEEL	M	$52.49	$6,561.00		$6,561.00
608100000	8,667	SIDEWALK-CONCRETE 100 MM	M2	$56.79	$492,199.00		$492,199.00
608150000	1,182	SIDEWALK-CONCRETE 150 MM	M2	$95.70	$113,117.00		$113,117.00
608290100	142	TRUNCATED DOMES	M2	$534.27	$75,866.00		$75,866.00
608500100	3,515	CONCRETE 100 MM	M2	$69.38	$243,871.00		$243,871.00
609000000	6,096	CURB & GUTTER-CONCRETE	M	$68.70	$418,795.00		$418,795.00
610300000	30,000	SODDING	M2	$10.66	$319,800.00		$319,800.00
614000000	1,500	RETAINING WALL	M2	$521.55	$782,325.00		$782,325.00
619690000	100	SIGN - INSTALL	EACH	$1,250.00	$125,000.00		$125,000.00
619700000	100	REMOVE SIGNS	EACH	$40.90	$4,090.00		$4,090.00
620010000	420	STRIPING-WHITE PAINT	L	$5.91	$2,482.00		$2,482.00
620020000	365	STRIPING-YELLOW PAINT	L	$6.96	$2,540.00		$2,540.00
620045000	760	YELLOW CURB MARKING EPOXY	L	$69.43	$52,767.00		$52,767.00
620110000	420	STRIPING-WHITE EPOXY	L	$13.72	$5,762.00		$5,762.00
620120000	365	STRIPING-YELLOW EPOXY	L	$13.62	$4,971.00		$4,971.00
620130000	100	WORDS/SYMBOLS-WHITE EPOXY	L	$69.69	$6,969.00		$6,969.00
621421000	72	ADJUST DROP INLET	EACH	$1,400.00	$100,800.00		$100,800.00
621430000	47	ADJUST MANHOLES	EACH	$557.09	$26,183.00		$26,183.00
621440000	8	ADJUST FIRE HYDRANT	EACH	$1,550.00	$12,400.00		$12,400.00
855000100	1	LANDSCAPING	LS	$25,000.00	$25,000.00		$25,000.00
	1	Irrigation Structure	LS	$300,000.00	$300,000.00		$300,000.00
	31	Adjust Water Valve	EACH	$325.00	$10,075.00		$10,075.00
	1	Bridge over Clark Fork River	LS	$7,220,000.00	$7,220,000.00		$7,220,000.00
	2	Railroad Gates	EACH	$180,000.00	$360,000.00		$360,000.00
	34	Railroad Gate Concrete Crossing Surface	M	$3,281.00	$111,160.00		$111,160.00
	3	Roundabout Intersections	EACH	$400,000.00	$1,200,000.00		$1,200,000.00
	1	Elliptical Roundabout	EACH	$450,000.00	$450,000.00		$450,000.00
	1	Small Roundabout	EACH	$300,000.00	$300,000.00		$300,000.00
	1	Signalized Intersections	EACH	$250,000.00	$250,000.00		$250,000.00
	38	Dry Wells	EACH	$10,000.00	$380,000.00		$380,000.00
	1	Knowles Pedestrian Tunnel	LS	$701,643.00	$701,643.00		$701,643.00
	1	Dakota Pedestrian Tunnel	LS	$244,000.00	$244,000.00		$244,000.00
	1	Wyoming St. Addition	LS	$969,593.00	$969,593.00		$969,593.00
		Subtotal			$19,761,217.00		$19,761,217.00
	8%	Mobilization			$1,580,897.36		$1,580,897.36
		Subtotal			$21,342,114.36		$21,342,114.36
	25%	Contingency			$5,335,528.59		$5,335,528.59
		Subtotal			$26,677,642.95		$26,677,642.95
	3%	Inflation	Years	3.00	$2,473,737.80		$2,473,737.80
		Construction Total			$29,151,380.75		**$29,151,380.76**
	15%	**Construction Engineering**			$4,372,707.11		$4,372,707.11
		Total Construction			$33,524,087.86		**$33,524,087.86**
	18,625	Right-Of-Way	M2	$130.00	$2,421,250.00		$2,421,250.00
	1	Right-Of-Way (Compensation for Structures)	LS	$5,781,322.00	$5,781,322.00		$5,781,322.00
		Total Right of Way					**$8,202,572.00**
		Total Construction + ROW					**$41,726,659.86**

Project Length	km	2.70			
Average Project Finish Top Width	m	25.00			
Cost per Kilometer (Uses Construction Total)					$10,796,807.68

Alternative 4 - 4+ Lanes with Signals

Russell Street would have four travel lanes (two southbound and two northbound) plus a center turn lane or raised median throughout the corridor. Major intersections would be controlled by signals.

Figure 2-7 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Four travel lanes from Mount Avenue/South 14th Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

none

Single-Lane Roundabouts at:

none

Signal Control at:

Mount Avenue/South 14th Street (existing)
South 5th Street (existing)
South 3rd Street (existing)
Wyoming Street
West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs

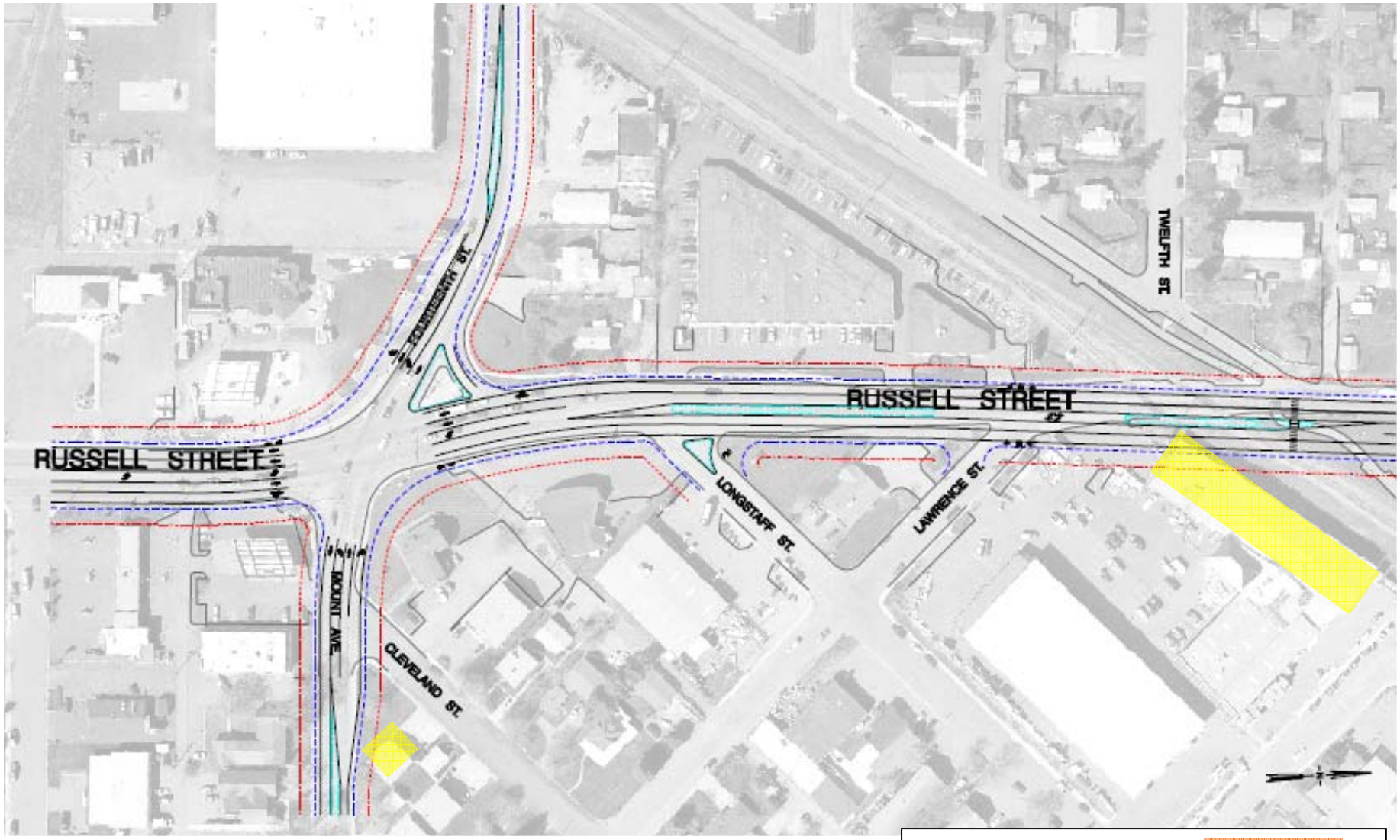
Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

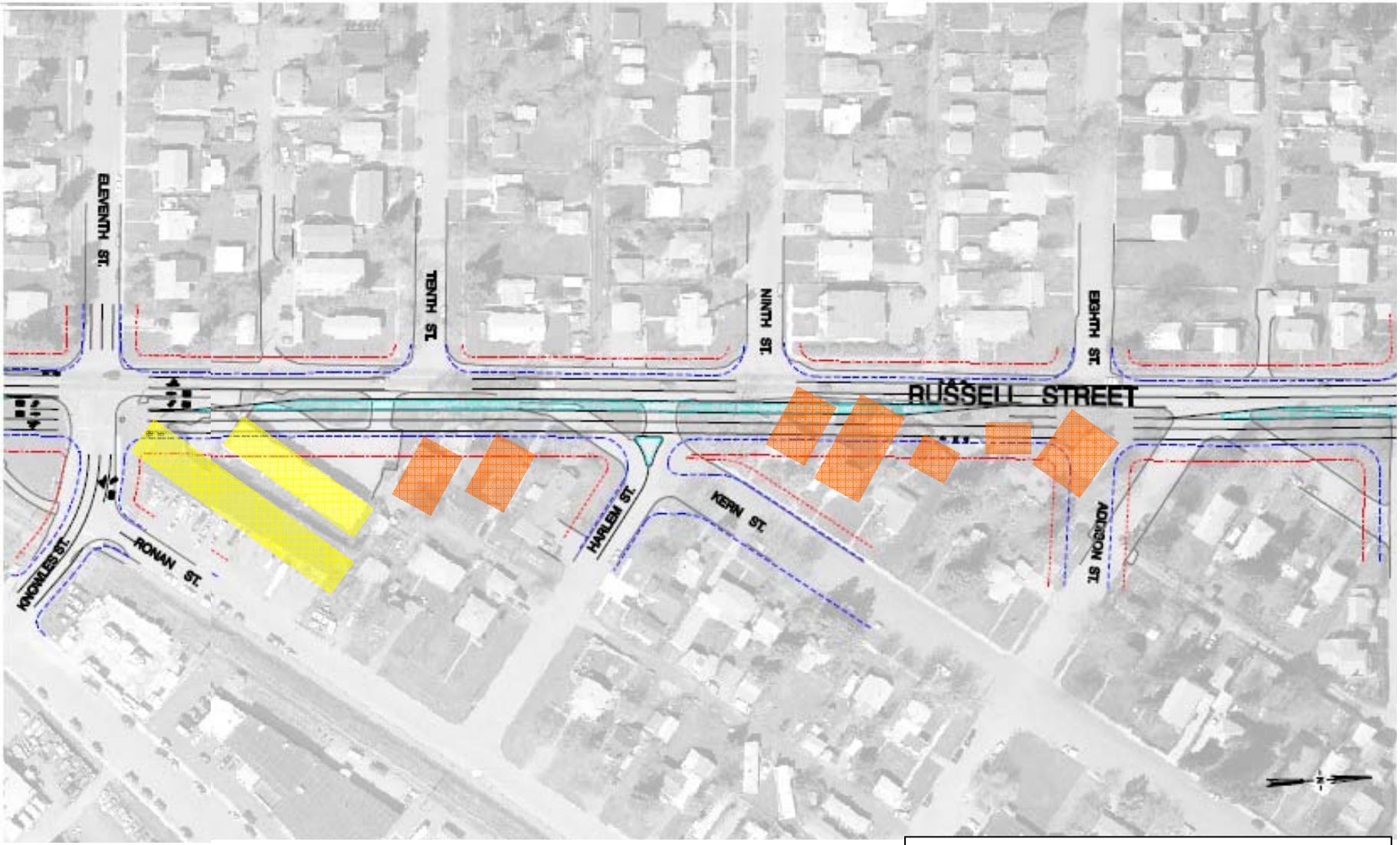
Alignment:

The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on properties protected under Section 4(f).

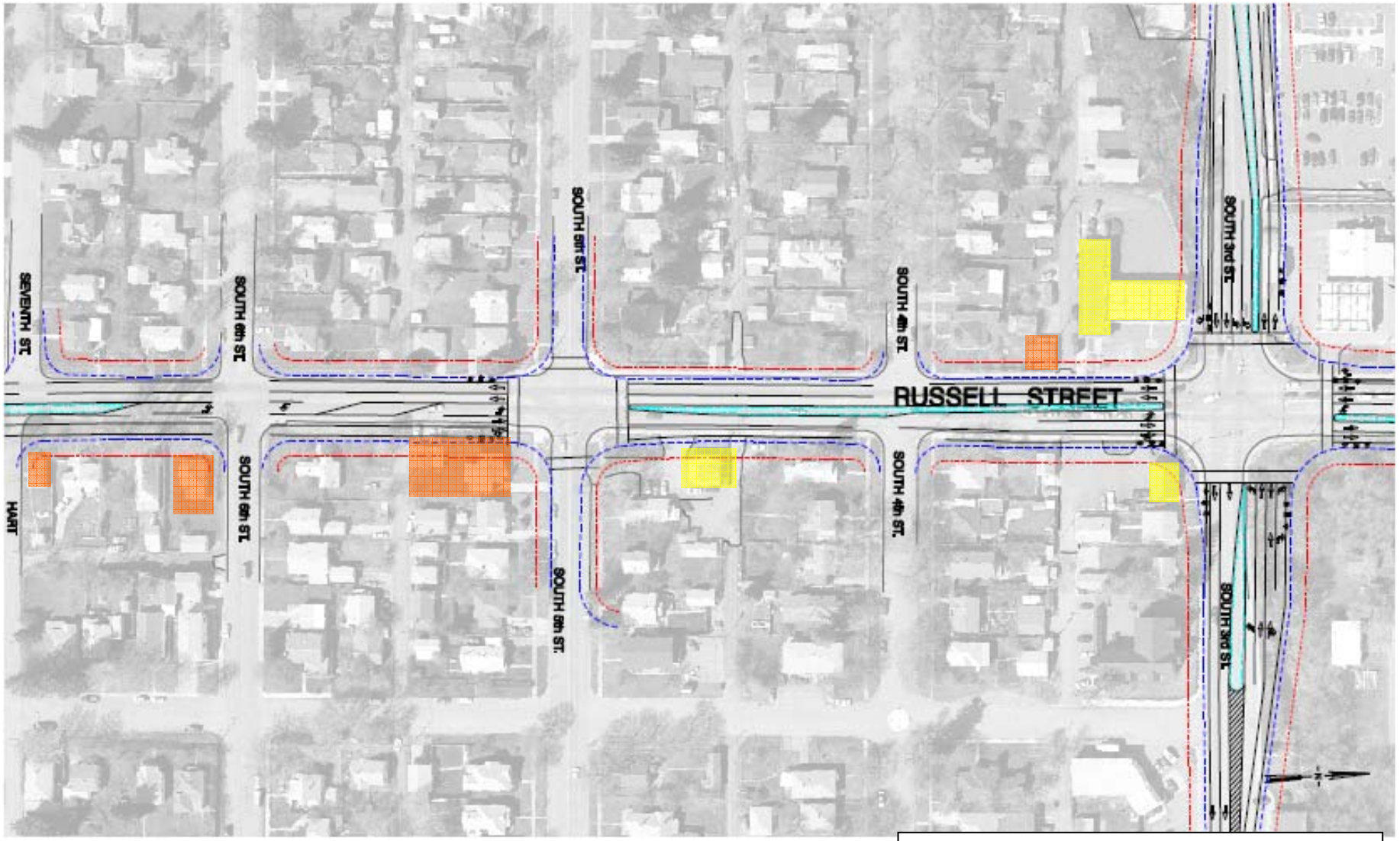
Russell Street Alternative 4



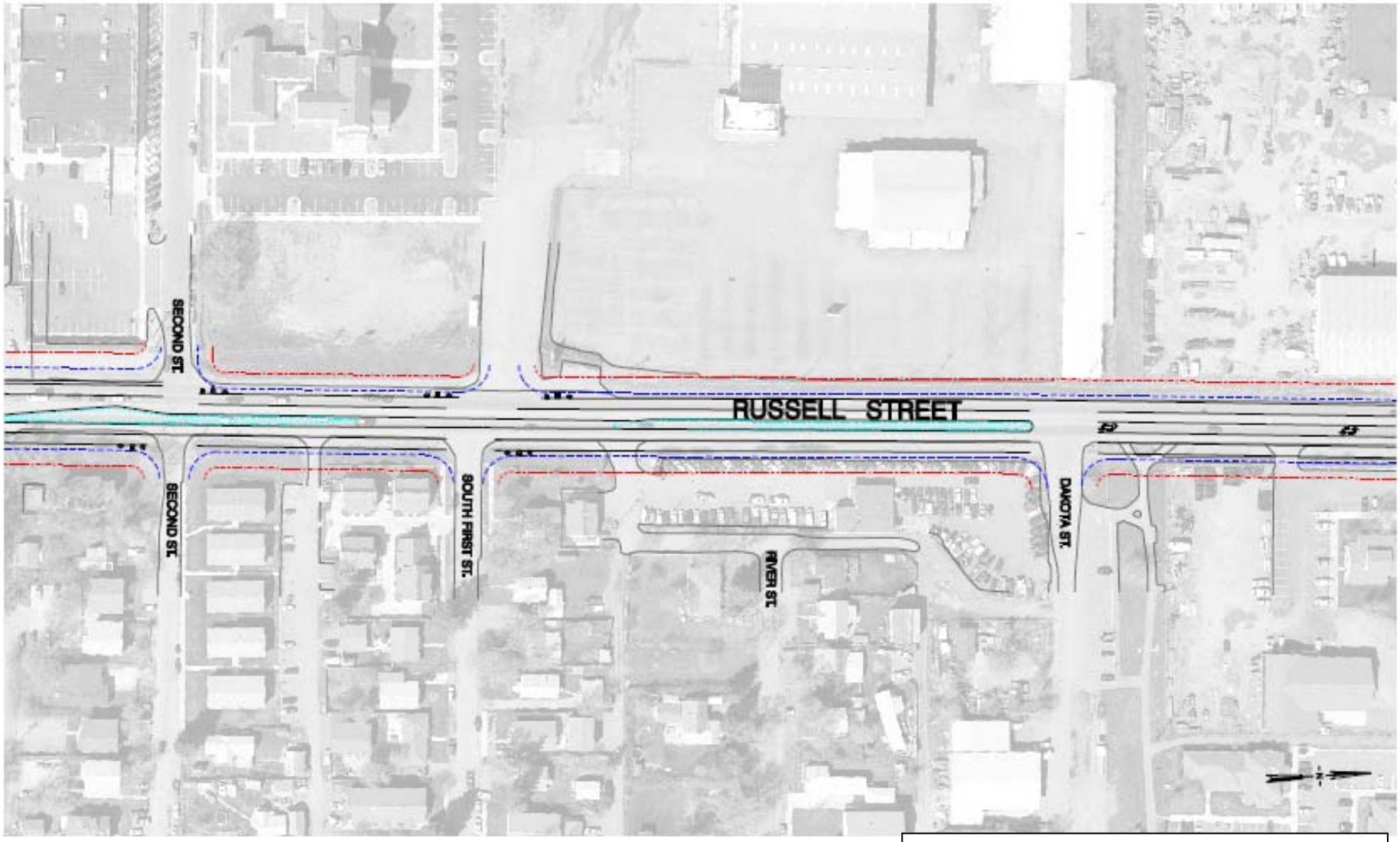
Russell Street Alternative 4



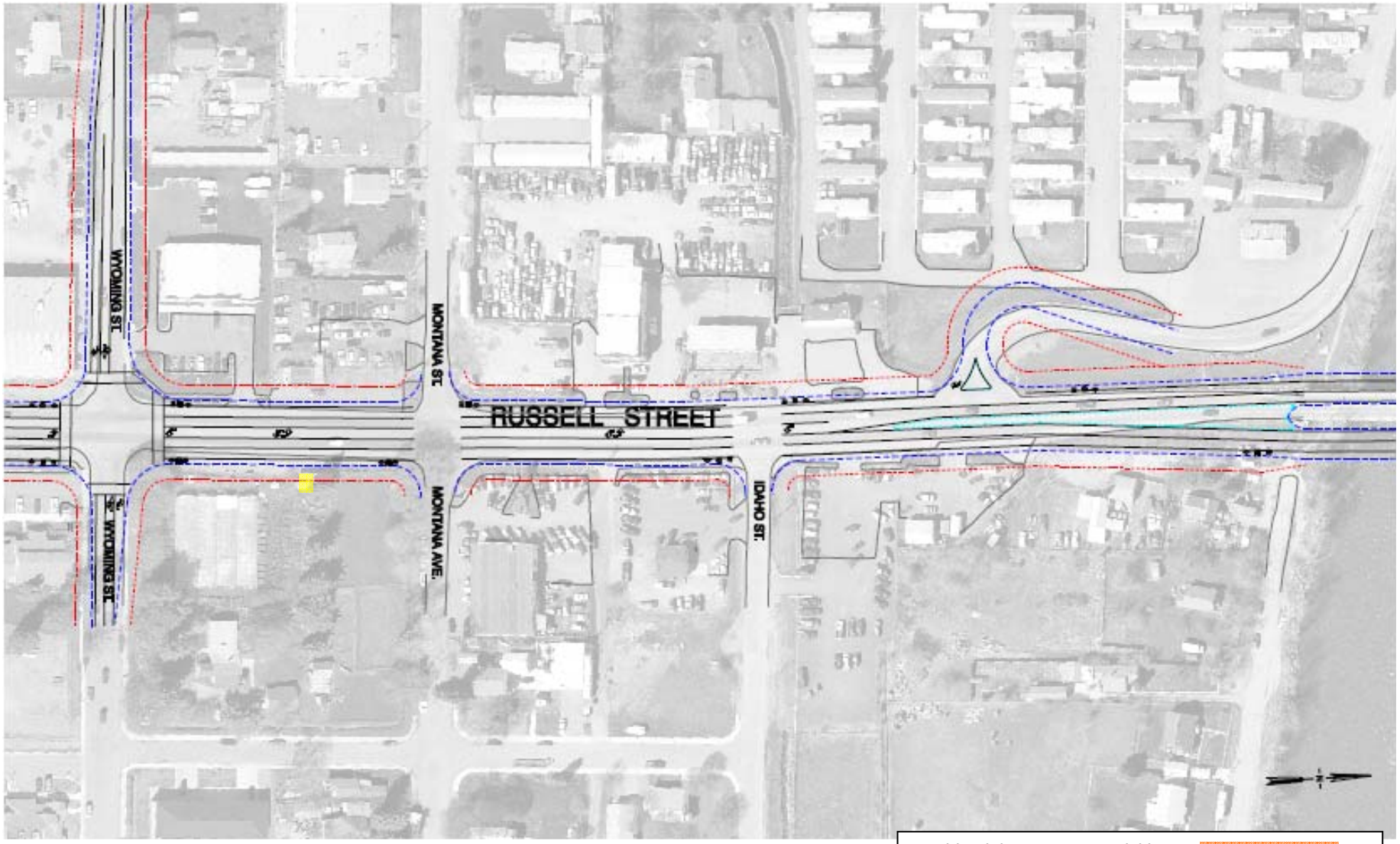
Russell Street Alternative 4



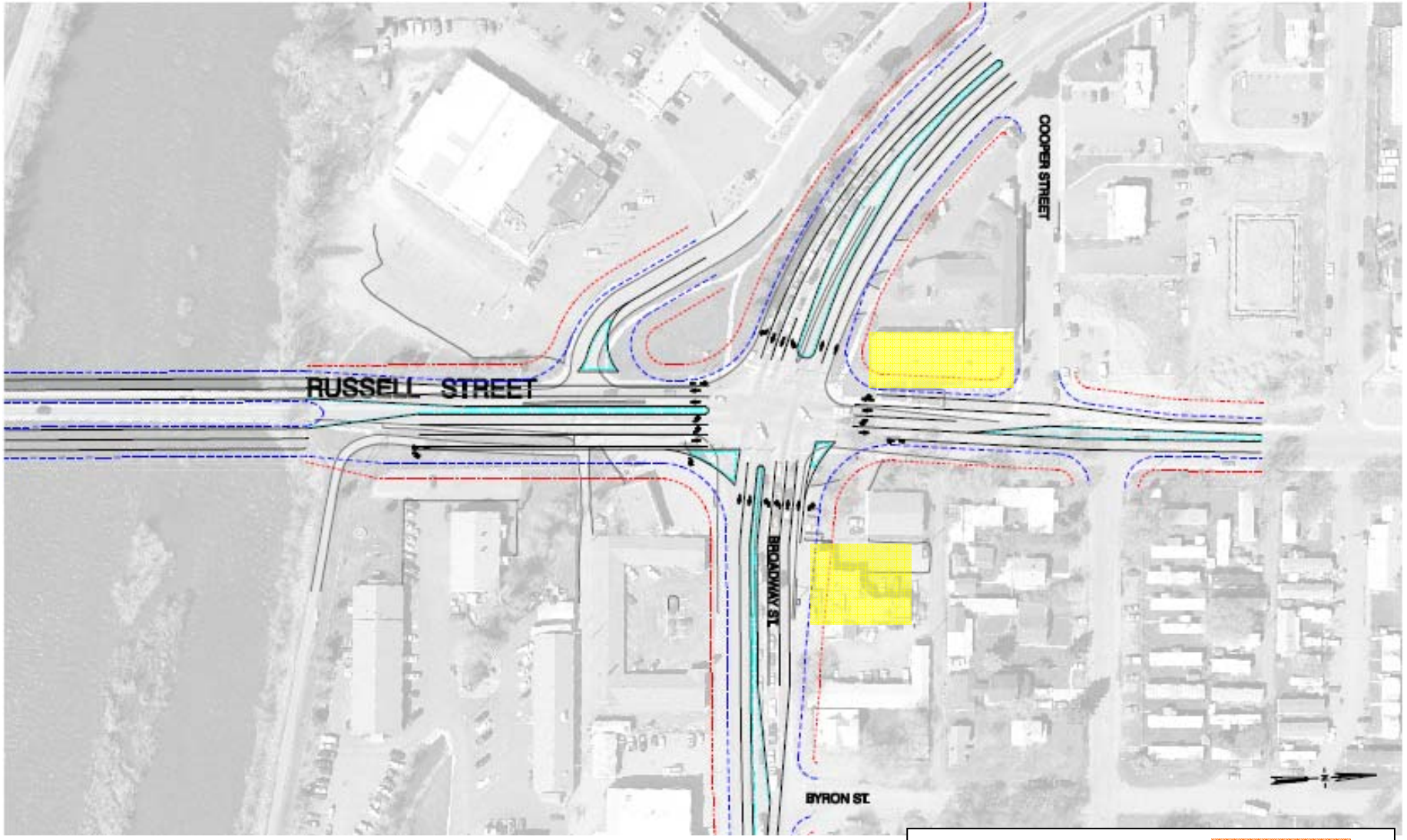
Russell Street Alternative 4



Russell Street Alternative 4



Russell Street Alternative 4



Residential Impacts under Alternative 4

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
Russell Street				
521 Russell St.	820 Russell St.	1439 4th St. W	1431 3rd St.	915 Russell St.
1445 5th St.	1508 S. 5th St.	1501 5th St.	1501 4th St. W	1501 1500 ½ 7th St.
824 Russell St.	1436 S. 4th St	738 Russell St.	1502 6th St. W	1501 9th St. W
1000 Russell St.		808 Russell St.	1501 6th St. W	1135 10th St. W
1010 Russell St.		1501 11th St.	1500 7th St. W	1501 Russell St.
915 Kern St.			1500 8th St. W	1500 14th St. W
935 Kern St.			1501 10th St.	1516 & 1516 1/2 12th
941 Kern St.			1500 11th St. W	
1012 Kern St.				
1016 Kern St.				
802 Russell St.				

Commercial Impacts under Alternative 4

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
Russell Street				
1440 Broadway St.	1407 River Rd.	1427 W. Broadway	403 Russell St.	140 Russell St.
1500 Broadway St.	1503 Russell St.		1440 Russell St.	1417 S. 3rd St.
500 Russell St.	121 Russell St.		1540 W. Broadway	100 Russell St.
501 Russell St.	1515 Wyoming		1437 1st St. W	1520 Russell St.
1120 Russell St.	1451 W. Broadway Mount and Russell St.		1007 Mount Ave.	1427 2nd St.
1035 Ronan St.				
Montana Rail Link				
1400 Wyoming St.				
1208 Mount Ave.				
1440 S. 5th St.				

Montana Department of Transportation

Bid Prices
Jul06-Jan07

Preliminary Estimate

Project Title:	Russell St. - Missoula (EIS)	Prepared by:	HKM Engineering Inc.
Project Number:	Alternative 4	Date:	June 14, 2007
Project Length:	2,700 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	4123	D.A. Approval.:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	$5,000.00	$10,000.00		$10,000.00
202013000	19	REMOVE STRUCTURE	EACH	$50,000.00	$950,000.00		$950,000.00
202110000	250	REMOVE CONCRETE PAVEMENT	M2	$11.35	$2,838.00		$2,838.00
202120000	46,500	REMOVE BITUMINOUS PAVEMENT	M2	$2.18	$101,370.00		$101,370.00
202230000	3,500	REMOVE CURB & GUTTER	M	$57.03	$199,605.00		$199,605.00
202241000	3,100	REMOVE SIDEWALK	M2	$13.86	$42,966.00		$42,966.00
203120000	39,000	EXCAVATION-STREET	M3	$18.91	$737,490.00		$737,490.00
203300000	68,405	EMBANKMENT IN PLACE	M3	$7.18	$491,148.00		$491,148.00
301270000	33,000	CRUSHED AGGREGATE COURSE	M3	$28.14	$928,620.00		$928,620.00
301440020	71,725	COVER - TYPE 2	M2	$0.76	$54,511.00		$54,511.00
401080000	16,405	PLANT MIX BIT SURF GR S - 19 MM	MT	$24.13	$395,853.00		$395,853.00
401100000	131	DUST PALLIATIVE	MT	$155.97	$20,432.00		$20,432.00
401200000	230	HYDRATED LIME	MT	$150.72	$34,666.00		$34,666.00
402097000	886	ASPHALT CEMENT PG 70-28	MT	$481.02	$426,184.00		$426,184.00
402225000	132	EMULSIFIED ASPHALT CRS-2P	MT	$447.98	$59,133.00		$59,133.00
557310000	250	PEDESTRIAN RAIL	M	$250.00	$62,500.00		$62,500.00
606000000	125	GUARD RAIL-STEEL	M	$52.49	$6,561.00		$6,561.00
608100000	9,076	SIDEWALK-CONCRETE 100 MM	M2	$56.79	$515,426.00		$515,426.00
608150000	1,238	SIDEWALK-CONCRETE 150 MM	M2	$95.70	$118,477.00		$118,477.00
608290100	142	TRUNCATED DOMES	M2	$534.27	$75,866.00		$75,866.00
608500100	4,798	CONCRETE 100 MM	M2	$69.38	$332,885.00		$332,885.00
609000000	7,277	CURB & GUTTER-CONCRETE	M	$68.70	$499,930.00		$499,930.00
610300000	30,000	SODDING	M2	$10.66	$319,800.00		$319,800.00
614000000	1,500	RETAINING WALL	M2	$521.55	$782,325.00		$782,325.00
619690000	100	SIGN - INSTALL	EACH	$1,250.00	$125,000.00		$125,000.00
619700000	100	REMOVE SIGNS	EACH	$40.90	$4,090.00		$4,090.00
620010000	624	STRIPING-WHITE PAINT	L	$5.91	$3,688.00		$3,688.00
620020000	232	STRIPING-YELLOW PAINT	L	$6.96	$1,615.00		$1,615.00
620045000	890	YELLOW CURB MARKING EPOXY	L	$69.43	$61,793.00		$61,793.00
620110000	624	STRIPING-WHITE EPOXY	L	$13.72	$8,561.00		$8,561.00
620120000	232	STRIPING-YELLOW EPOXY	L	$13.62	$3,160.00		$3,160.00
620130000	75	WORDS/SYMBOLS-WHITE EPOXY	L	$69.69	$5,227.00		$5,227.00
621421000	72	ADJUST DROP INLET	EACH	$1,400.00	$100,800.00		$100,800.00
621430000	47	ADJUST MANHOLES	EACH	$557.09	$26,183.00		$26,183.00
621440000	8	ADJUST FIRE HYDRANT	EACH	$1,550.00	$12,400.00		$12,400.00
855000100	1	LANDSCAPING	LS	$25,000.00	$25,000.00		$25,000.00
	1	Irrigation Structure	LS	$300,000.00	$300,000.00		$300,000.00
	31	Adjust Water Valve	EACH	$325.00	$10,075.00		$10,075.00
	1	Bridge over Clark Fork River	LS	$7,220,000.00	$7,220,000.00		$7,220,000.00
	2	Railroad Gates	EACH	$180,000.00	$360,000.00		$360,000.00
	34	Railroad Gate Concrete Crossing Surface	M	$3,281.00	$111,160.00		$111,160.00
	0	Roundabout Intersections	EACH	$400,000.00	$0.00		$0.00
	6	Signalized Intersections	EACH	$250,000.00	$1,500,000.00		$1,500,000.00
	38	Dry Wells	EACH	$10,000.00	$380,000.00		$380,000.00
	1	Knowles Pedestrian Tunnel	LS	$701,643.00	$701,643.00		$701,643.00
	1	Dakota Pedestrian Tunnel	LS	$244,000.00	$244,000.00		$244,000.00
	1	Wyoming St. Addition	LS	$969,593.00	$969,593.00		$969,593.00
		Subtotal			$19,342,574.00		$19,342,574.00
	8%	Mobilization			$1,547,405.92		$1,547,405.92
		Subtotal			$20,889,979.92		$20,889,979.92
	25%	Contingency			$5,222,494.98		$5,222,494.98
		Subtotal			$26,112,474.90		$26,112,474.90
	3%	Inflation	Years	3.00	$2,421,331.46		$2,421,331.46
		Construction Total			$28,533,806.36		**$28,533,806.36**
	15%	**Construction Engineering**			$4,280,070.95		$4,280,070.95
		Total Construction			$32,813,877.31		**$32,813,877.31**
	17,465	Right-Of-Way	M2	$130.00	$2,270,450.00		$2,270,450.00
	1	Right-Of-Way (Compensation for Structures)	LS	$4,468,702.00	$4,468,702.00		$4,468,702.00
		Total Right of Way					**$6,739,152.00**
		Total Construction + ROW					**$39,553,029.31**

Project Length	km	2.70			
Average Project Finish Top Width	m	25.00			
Cost per Kilometer (Uses Construction Total)					$10,568,076.43
Cost per Sq. Meter (Uses Construction Total)					$422.72

Alternative 5 - 4+ Lanes with Roundabouts

Alternative 5 is identical to Alternative 4 in terms of lane configuration (two southbound and two northbound, with raised medians and center turn lanes) on Russell Street. However, the major intersections would be controlled by roundabouts instead of traffic signals. The West Broadway Street intersection would remain signalized. Like Alternative 4, raised medians would be used throughout the Russell Street corridor to enhance the flow of through traffic. Figure 2-8 illustrates the major features of this alternative, and the following provides a summary.

Lane Configuration:

Four travel lanes from Mount Avenue/South 14th Street to West Broadway Street

Intersection Control:

Two-Lane Roundabouts at:

Mount Avenue/South 14th Street
South 5th Street
South 3rd Street
Wyoming Street
South 11th Street

Single-Lane Roundabouts at:

none

Signal Control at:

West Broadway Street (existing)

All other streets intersecting Russell Street would be controlled by stop signs.

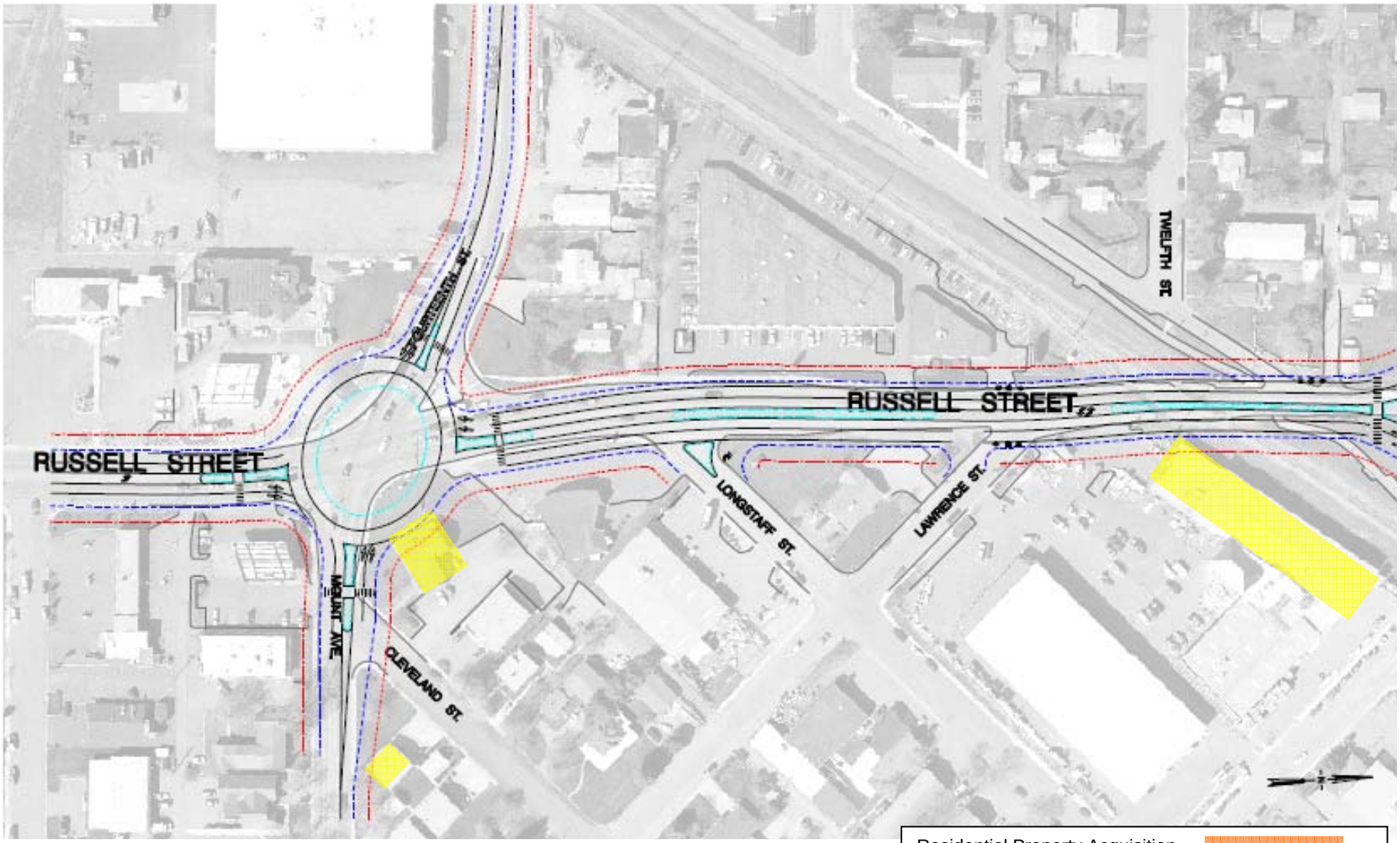
Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

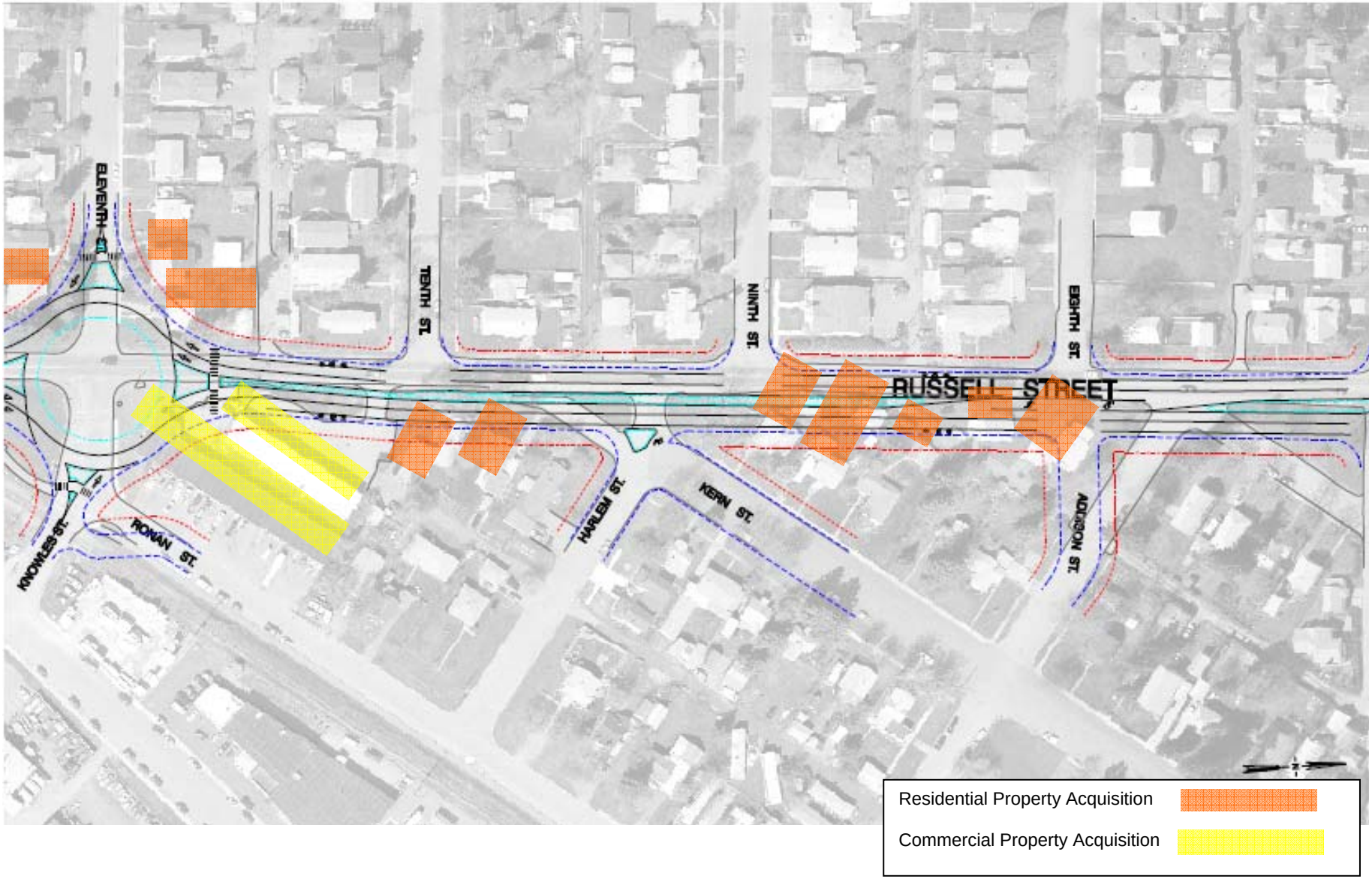
Alignment:

The alignment of Russell Street in the southern portion of the corridor would shift to the east to minimize the impact on properties protected under Section 4(f).

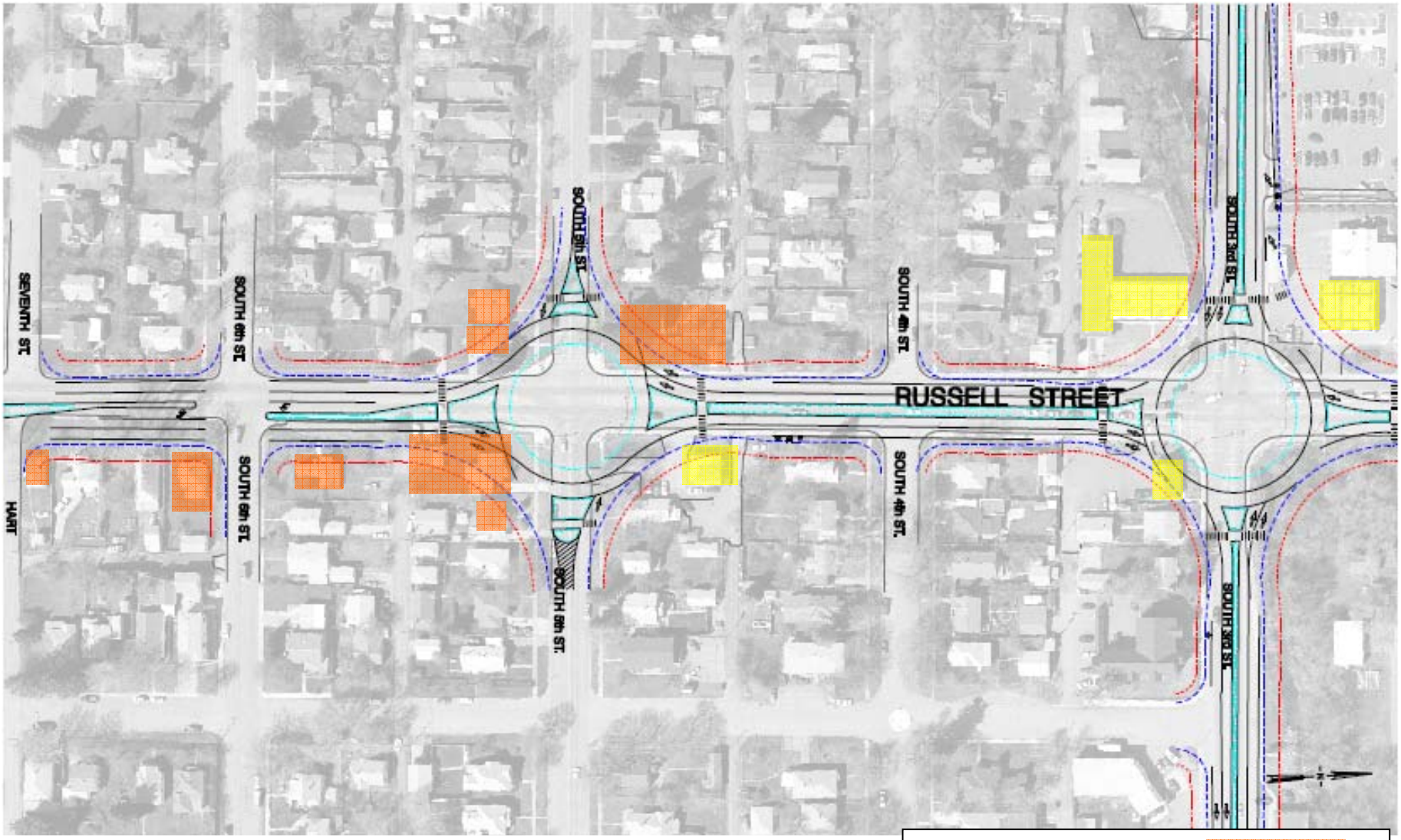
Russell Street Alternative 5



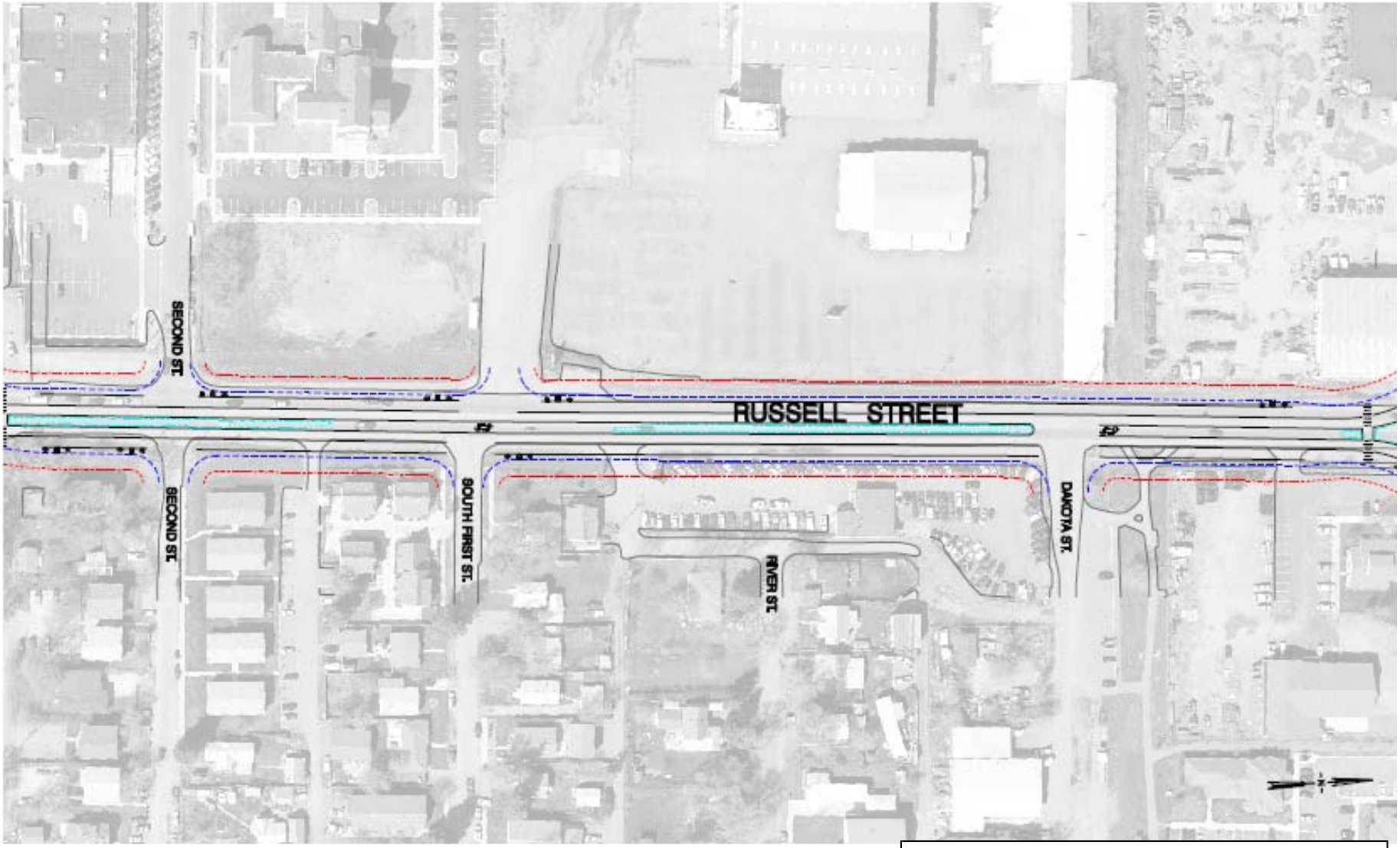
Russell Street Alternative 5



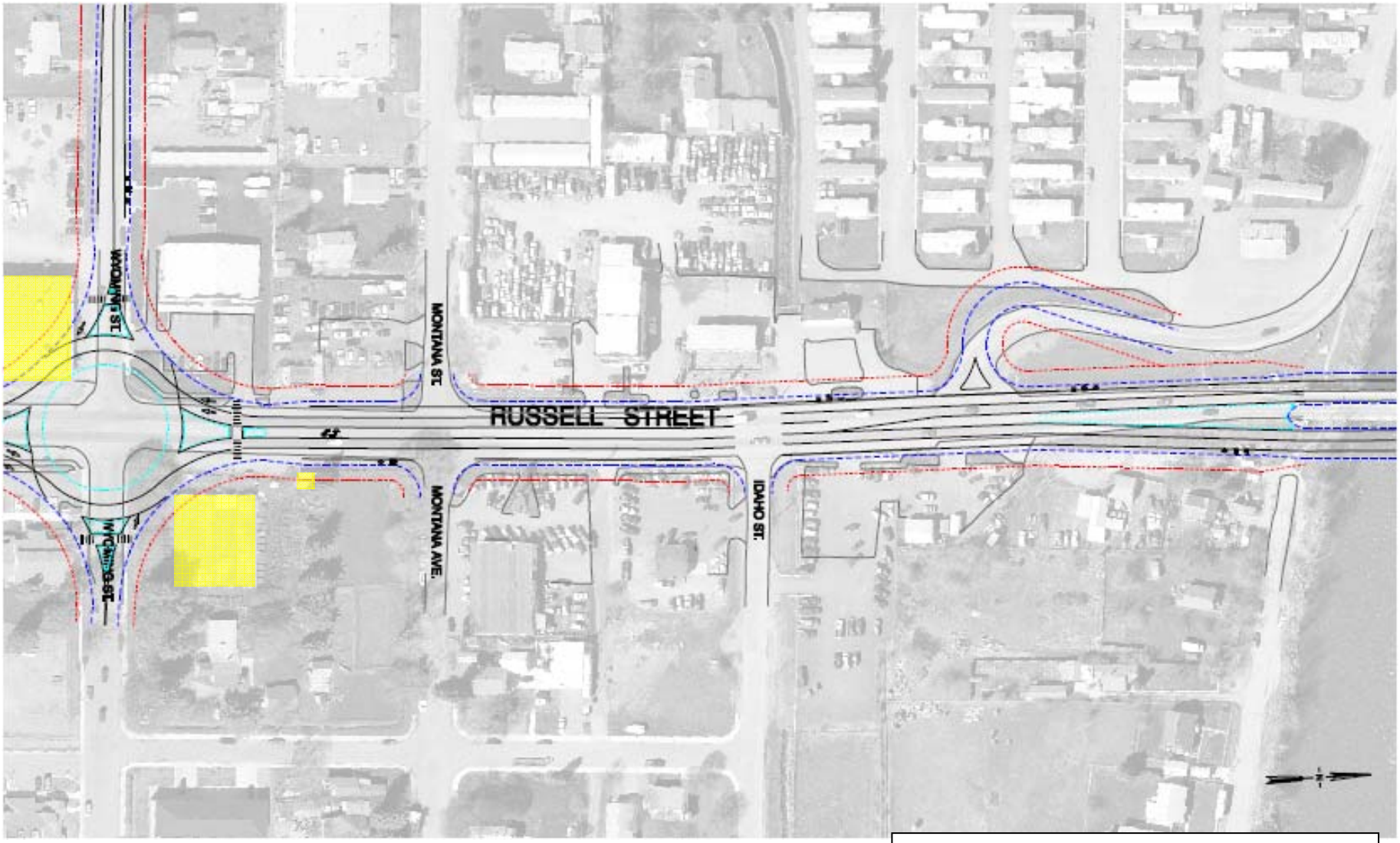
Russell Street Alternative 5



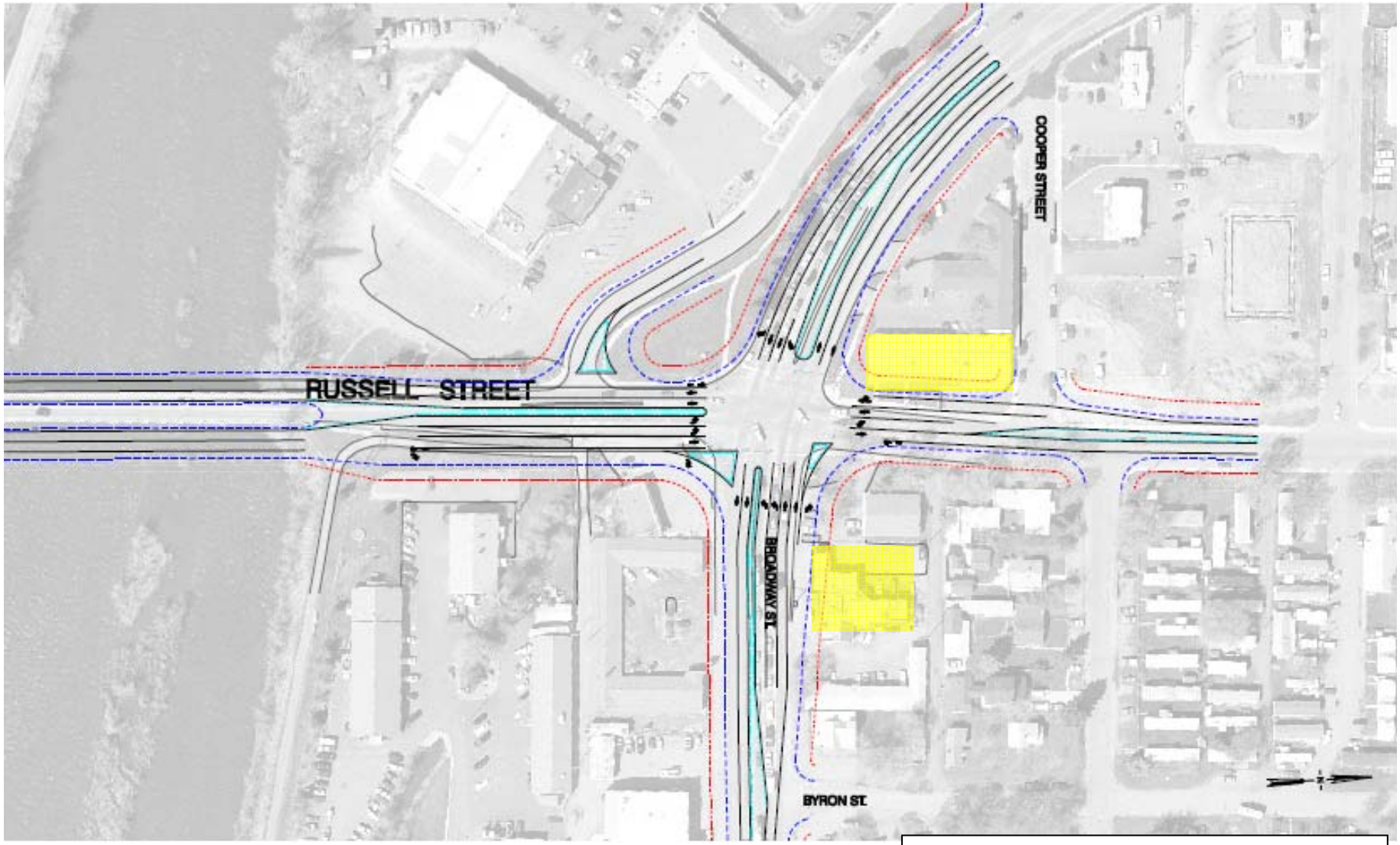
Russell Street Alternative 5



Russell Street Alternative 5



Russell Street Alternative 5



Residential Impacts under Alternative 5

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
Russell Street				
1508 5th St.	1425 5th St.	1431 3rd St.	1439 4th St. W	1405 S. 5th St.
1439 5th St.	808 Russell St.	1436 4th. St. W	1510 S. 5th St.	1500 7th St. W
1445 5th St.	1500 11th St.	1501 4th St. W	1502 6th St. W	915 Russell St.
1501 5th St.	738 Russell St.	1501 S. 10th St.	1501 6th St. W	1500 8th St. W
1509 5th St.	521 Russell St.		1501 Russell St.	1501 9th St. W
802 Russell St.				1135 10th St. W
820 Russell St.				
824 Russell St.				
1000 Russell St.				
1010 Russell St.				
915 Kern St.				
935 Kern St.				
941 Kern St.				
1012 Kern St.				
1016 Kern St.				
1520 11th St.				
1500 11th St. W				
1501 11th St.				

Commercial Impacts under Alternative 5

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
Russell Street				
1500 Broadway St.	1407 River Rd.	1427 W. Broadway St.	1540 W. Broadway	215 Russell St.
1440 Broadway St.	1503 Russell St.	1451 Broadway St.	1440 Russell St.	1437 1st St. W
1400 Wyoming St.	140 Russell St.	Mount and Russell St.		1427 2nd St. W
1515 Wyoming St.	121 Russell St.			100 Russell St.
403 Russell St.	1516 12th St.			1007 Mount Ave.
500 Russell St.				
501 Russell St.				
1440 5th St.				
1120 Russell St.				
1035 Ronan St.				
Montana Rail Link				
1208 Mount Ave.				
1520 Russell St.				

Montana Department of Transportation

Bid Prices
Jul06-Jan07

Preliminary Estimate

Project Title:	Russell St. - Missoula (EIS)	Prepared by:	HKM Engineering Inc.
Project Number:	Alternative 5	Date:	June 14, 2007
Project Length:	2,700 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	4123	D.A. Approval.:	

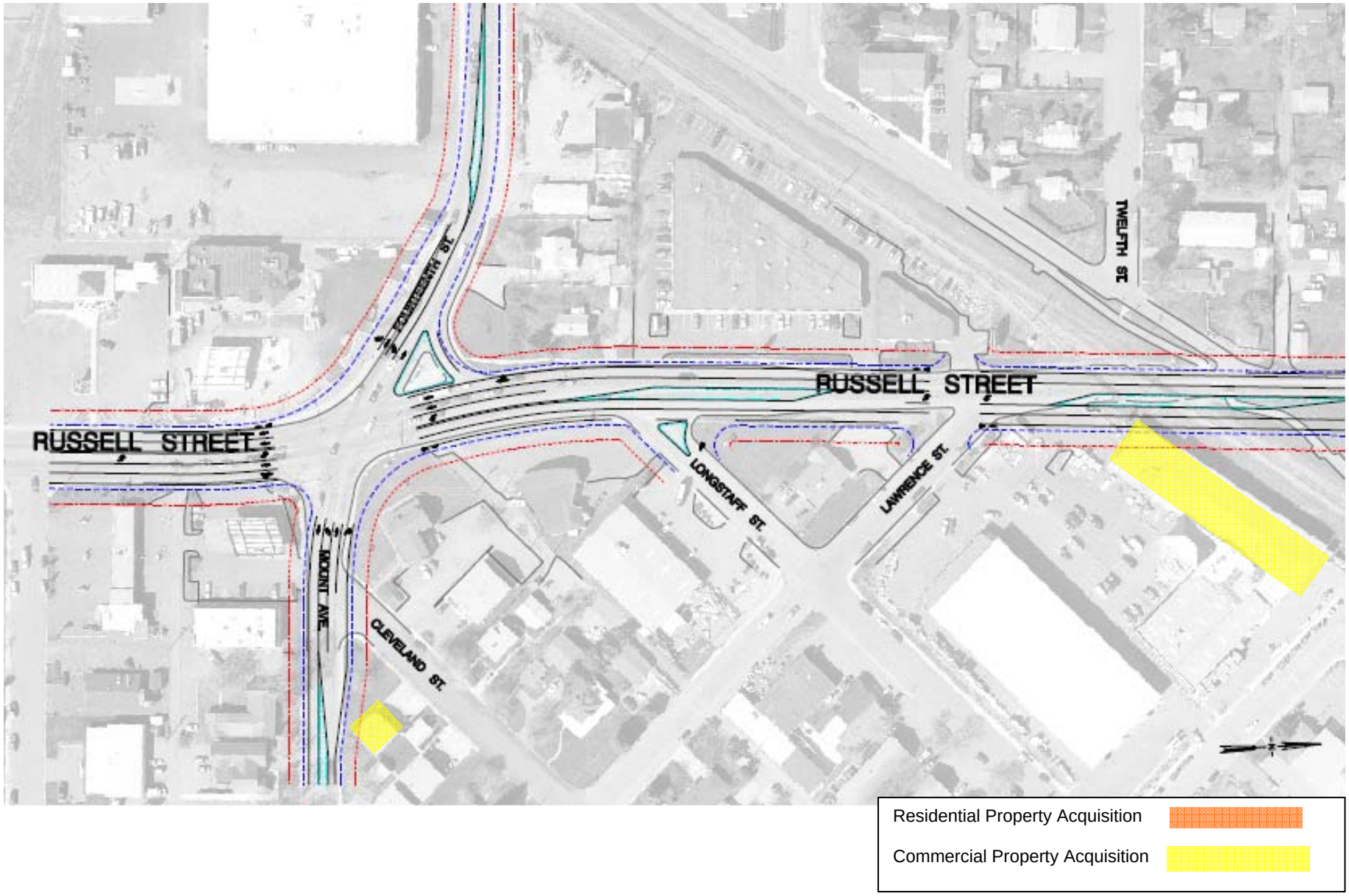
Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	$5,000.00	$10,000.00		$10,000.00
202013000	30	REMOVE STRUCTURE	EACH	$50,000.00	$1,500,000.00		$1,500,000.00
202110000	250	REMOVE CONCRETE PAVEMENT	M2	$11.35	$2,838.00		$2,838.00
202120000	46,500	REMOVE BITUMINOUS PAVEMENT	M2	$2.18	$101,370.00		$101,370.00
202230000	3,500	REMOVE CURB & GUTTER	M	$57.03	$199,605.00		$199,605.00
202241000	3,100	REMOVE SIDEWALK	M2	$13.86	$42,966.00		$42,966.00
203120000	39,000	EXCAVATION-STREET	M3	$18.91	$737,490.00		$737,490.00
203300000	64,000	EMBANKMENT IN PLACE	M3	$7.18	$459,520.00		$459,520.00
301270000	29,779	CRUSHED AGGREGATE COURSE	M3	$21.46	$639,057.00		$639,057.00
301440020	64,737	COVER - TYPE 2	M2	$0.76	$49,200.00		$49,200.00
401080000	14,805	PLANT MIX BIT SURF GR S - 19 MM	MT	$24.13	$357,245.00		$357,245.00
401100000	118	DUST PALLIATIVE	MT	$155.97	$18,404.00		$18,404.00
401200000	207	HYDRATED LIME	MT	$150.72	$31,199.00		$31,199.00
402097000	800	ASPHALT CEMENT PG 70-28	MT	$481.02	$384,816.00		$384,816.00
402225000	119	EMULSIFIED ASPHALT CRS-2P	MT	$447.98	$53,310.00		$53,310.00
557310000	250	PEDESTRIAN RAIL	M	$250.00	$62,500.00		$62,500.00
606000000	125	GUARD RAIL-STEEL	M	$52.49	$6,561.00		$6,561.00
608100000	7,932	SIDEWALK-CONCRETE 100 MM	M2	$56.79	$450,458.00		$450,458.00
608150000	1,082	SIDEWALK-CONCRETE 150 MM	M2	$95.70	$103,547.00		$103,547.00
608290100	142	TRUNCATED DOMES	M2	$534.27	$75,866.00		$75,866.00
608500100	3,740	CONCRETE 100 MM	M2	$69.38	$259,481.00		$259,481.00
609000000	6,075	CURB & GUTTER-CONCRETE	M	$68.70	$417,353.00		$417,353.00
610300000	30,000	SODDING	M2	$10.66	$319,800.00		$319,800.00
614000000	1,500	RETAINING WALL	M2	$521.55	$782,325.00		$782,325.00
619690000	100	SIGN - INSTALL	EACH	$1,250.00	$125,000.00		$125,000.00
619700000	100	REMOVE SIGNS	EACH	$40.90	$4,090.00		$4,090.00
620010000	540	STRIPING-WHITE PAINT	L	$5.91	$3,191.00		$3,191.00
620020000	377	STRIPING-YELLOW PAINT	L	$6.96	$2,624.00		$2,624.00
620045000	728	YELLOW CURB MARKING EPOXY	L	$69.43	$50,545.00		$50,545.00
620110000	540	STRIPING-WHITE EPOXY	L	$13.72	$7,409.00		$7,409.00
620120000	377	STRIPING-YELLOW EPOXY	L	$13.62	$5,135.00		$5,135.00
620130000	100	WORDS/SYMBOLS-WHITE EPOXY	L	$69.69	$6,969.00		$6,969.00
621421000	72	ADJUST DROP INLET	EACH	$1,400.00	$100,800.00		$100,800.00
621430000	47	ADJUST MANHOLES	EACH	$557.09	$26,183.00		$26,183.00
621440000	8	ADJUST FIRE HYDRANT	EACH	$1,550.00	$12,400.00		$12,400.00
855000100	1	LANDSCAPING	LS	$25,000.00	$25,000.00		$25,000.00
	1	Irrigation Structure	LS	$300,000.00	$300,000.00		$300,000.00
	31	Adjust Water Valve	EACH	$325.00	$10,075.00		$10,075.00
	1	Bridge over Clark Fork River	LS	$7,220,000.00	$7,220,000.00		$7,220,000.00
	2	Railroad Gates	EACH	$180,000.00	$360,000.00		$360,000.00
	34	Railroad Gate Concrete Crossing Surface	M	$3,281.00	$111,160.00		$111,160.00
	4	Roundabout Intersections	EACH	$450,000.00	$1,800,000.00		$1,800,000.00
	1	Elliptical Roundabout	EACH	$500,000.00	$500,000.00		$500,000.00
	1	Signalized Intersections	EACH	$250,000.00	$250,000.00		$250,000.00
	38	Dry Wells	EACH	$10,000.00	$380,000.00		$380,000.00
	1	Knowles Pedestrian Tunnel	LS	$701,643.00	$701,643.00		$701,643.00
	1	Dakota Pedestrian Tunnel	LS	$244,000.00	$244,000.00		$244,000.00
	1	Wyoming St. Addition	LS	$969,593.00	$969,593.00		$969,593.00
		Subtotal			$20,280,728.00		$20,280,728.00
	0%	Traffic Control			$0.00		$0.00
	0	Traffic Control Devices	Units	0.00	$0.00		$0.00
	0	Flagmen	Hours	0.00	$0.00		$0.00
	0	Pilot Car	Hours	0.00	$0.00		$0.00
		Subtotal			$20,280,728.00		$20,280,728.00
	8%	Mobilization			$1,622,458.24		$1,622,458.24
		Subtotal			$21,903,186.24		$21,903,186.24
	25%	Contingency			$5,475,796.56		$5,475,796.56
		Subtotal			$27,378,982.80		$27,378,982.80
	3%	Inflation	Years	3.00	$2,538,770.94		$2,538,770.94
		Construction Total			$29,917,753.74		**$29,917,753.74**
	15%	**Construction Engineering**			$4,487,663.06		$4,487,663.06
		Total Construction			$34,405,416.80		**$34,406,418.80**
	21,759	Right-Of-Way	M2	$130.00	$2,828,670.00		$2,828,670.00
	1	Right-Of-Way (Compensation for Structures)	LS	$7,300,214.00	$7,300,214.00		$7,300,214.00
		Total Right of Way					**$10,128,884.00**
		Total Construction + ROW					**$44,534,300.80**

Alternative 5 – Refined

The following modifications were made to Alternative 5 on Russell Street.

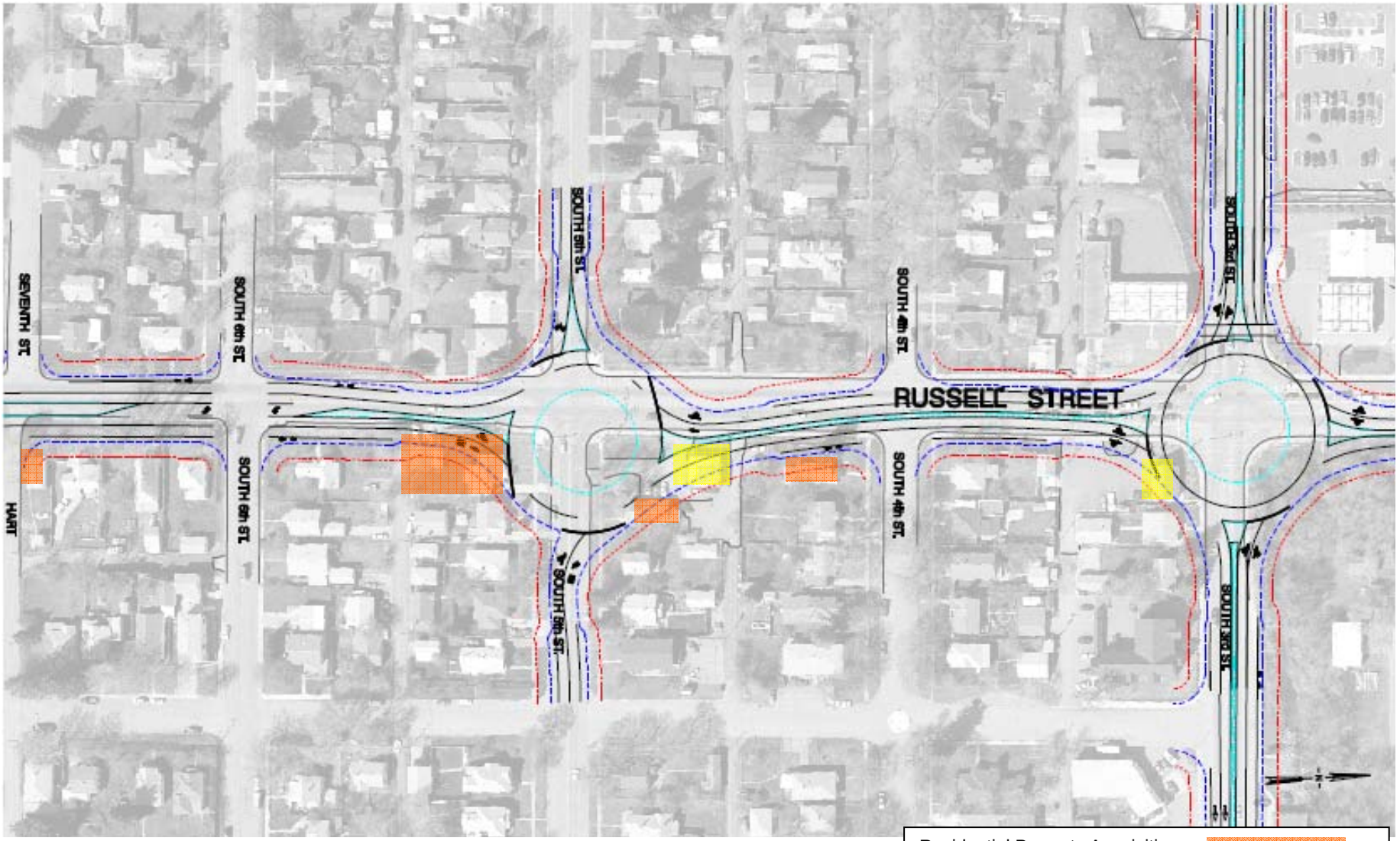
- To reduce the right-of-way requirements and costs associated with building a roundabout, the existing traffic signal would be left in place at Mount Avenue/South 14th Street.
- In order to minimize impacts to surrounding properties protected by Section 4(f), the proposed roundabouts at South 5th Street and South 3rd Street were reduced in size as compared to previous alternatives.
- Considerable time was spent investigating the potential of installing a roundabout at the South 11th Street/Knowles Street intersection. Due to the constraints of surrounding development, including properties protected by Section 4(f) of the Transportation Act, design modifications were necessary that hindered the ability of the roundabout intersection to provide optimal operation. Therefore, the intersection would remain a stop-controlled condition under this alternative.
- A traffic signal was selected for Wyoming Street because of the substantial right-of-way that would need to be acquired with a roundabout, and the potential operational issue of having a roundabout in close proximity to the signal at West Broadway Street.
- Improvements to the Russell Street and West Broadway Street intersection are limited to those turning movements on West Broadway Street that are affected by the Russell Street improvements such as double left-turn lanes westbound on West Broadway Street turning south onto Russell Street and one westbound right-turn lane north onto Russell Street. Other improvements to the West Broadway Street portion of the intersection are not part of this project at this time.

Russell Street Alternative 5 - Refined

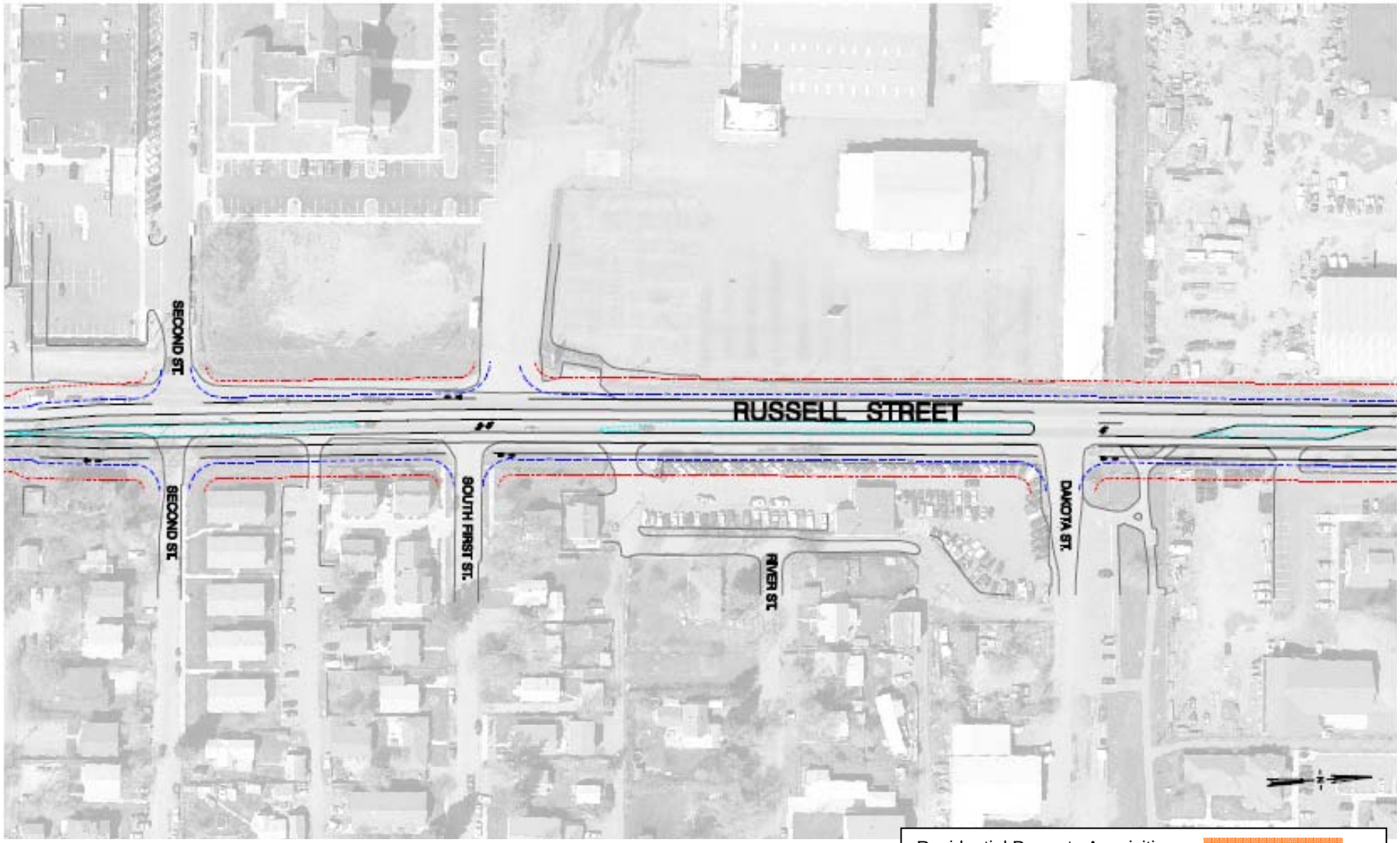


Russell Street Alternative 5 - Refined

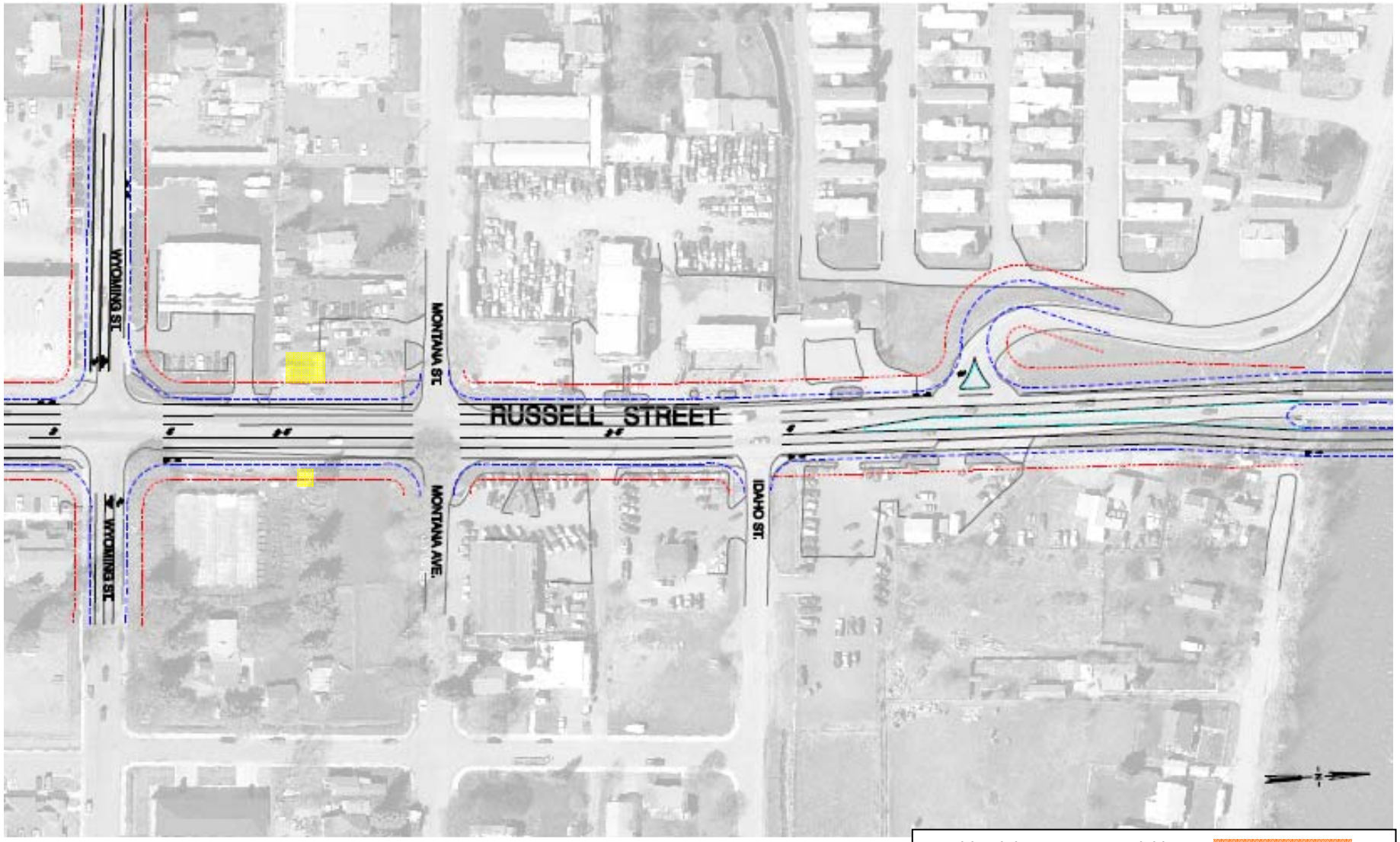
Russell Street Alternative 5 - Refined



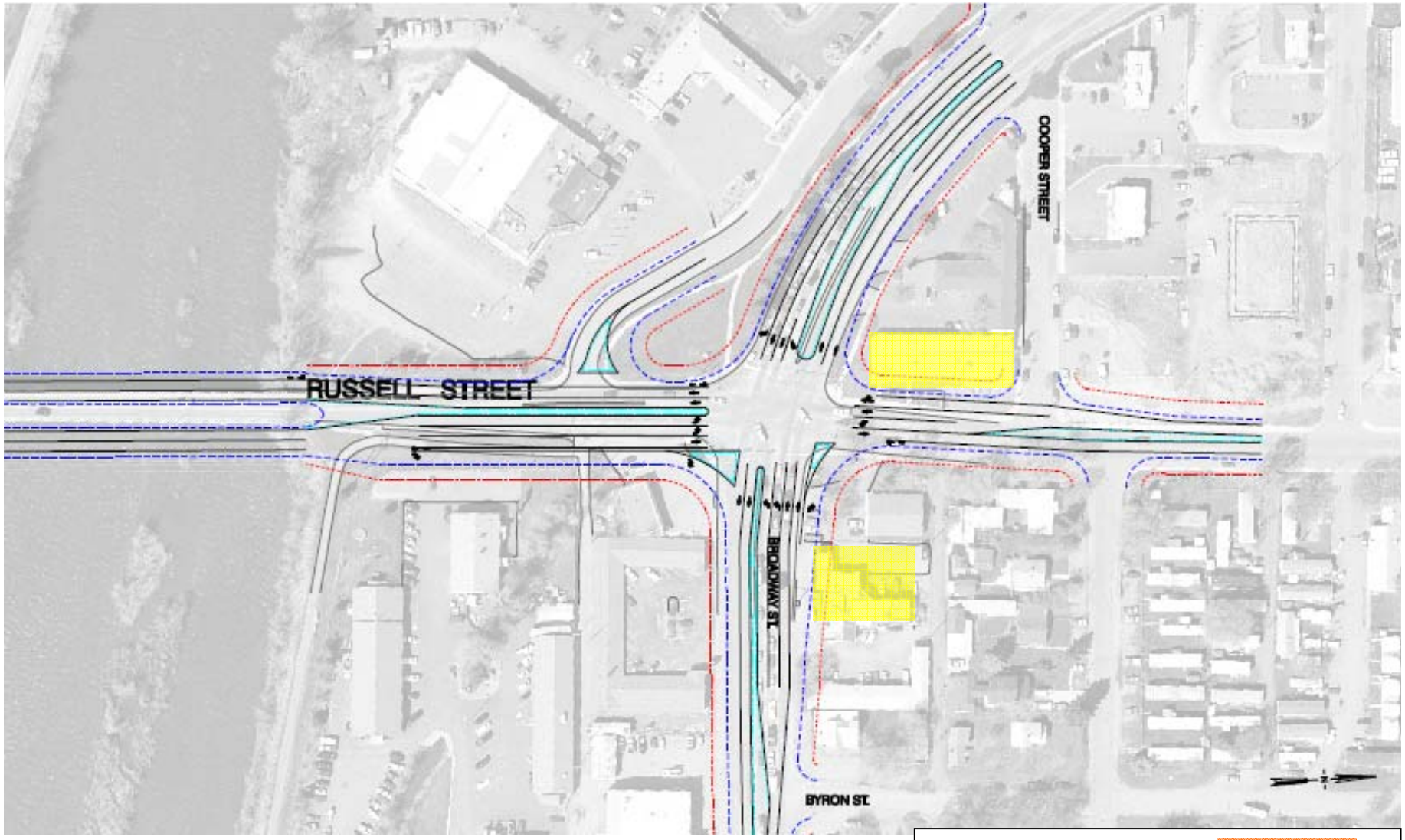
Russell Street Alternative 5 - Refined



Russell Street Alternative 5 - Refined



Russell Street Alternative 5 - Refined



Residential Impacts under Alternative 5 Refined

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
Russell Street				
1439 4th St. W	1431 3rd St.	1427 2nd St. W	1501 5th St.	1501 &1500 1/2 S. 7th St.
1445 5th St.	1436 4th. St. W	1501 5th St.	1502 6th St. W	915 Russell St.
1425 5th St.	1439 5th St.	808 Russell St.	1501 6th St. W	1501 9th St. W
824 Russell St.	738 Russell St.	1500 11th St. W	1500 7th St. W	1501 Russell St.
1000 Russell St.	802 Russell St.	1501 11th St.	1500 8th St. W	1500 14th St. W
1010 Russell St.	820 Russell St.	521 Russell St.	1135 10th St. W	
915 Kern St.			1501 S. 10th St.	
935 Kern St.			1516 & 1516 1/2 12th	
941 Kern St.				
1012 Kern St.				
1016 Kern St.				

Commercial Impacts under Alternative 5 Refined

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
Russell Street				
1500 Broadway St.	1407 River Rd.	1427 W. Broadway St.	1540 W. Broadway	140 Russell St.
1440 Broadway St.	1515 Wyoming St.	1451 Broadway St.	1437 1st St. W	100 Russell St.
1503 Russell St.	121 Russell St.	501 Russell St.	1007 Mount Ave.	1417 3rd St.
1400 Wyoming St.	Mount and Russell St.	1440 Russell St.		1520 Russell St.
500 Russell St.				
1440 5th St.				
1120 Russell St.				
1035 Ronan St.				
Montana Rail Link				
1208 Mount Ave.				

Montana Department of Transportation

Bid Prices
Jul06-Jan07

Preliminary Estimate

Project Title:	Russell St. - Missoula (EIS)	Prepared by:	HKM Engineering Inc.
Project Number:	Alternative 5 Refined	Date:	June 14, 2007
Project Length:	2,700 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	4123	D.A. Approval.:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	$5,000.00	$10,000.00		$10,000.00
202013000	21	REMOVE STRUCTURE	EACH	$50,000.00	$1,050,000.00		$1,050,000.00
202110000	250	REMOVE CONCRETE PAVEMENT	M2	$11.35	$2,838.00		$2,838.00
202120000	46,500	REMOVE BITUMINOUS PAVEMENT	M2	$2.18	$101,370.00		$101,370.00
202230000	3,500	REMOVE CURB & GUTTER	M	$57.03	$199,605.00		$199,605.00
202241000	3,100	REMOVE SIDEWALK	M2	$13.86	$42,966.00		$42,966.00
203120000	39,000	EXCAVATION-STREET	M3	$18.91	$737,490.00		$737,490.00
203300000	64,000	EMBANKMENT IN PLACE	M3	$7.18	$459,520.00		$459,520.00
301270000	29,779	CRUSHED AGGREGATE COURSE	M3	$28.14	$837,981.00		$837,981.00
301440020	64,737	COVER - TYPE 2	M2	$0.76	$49,200.00		$49,200.00
401080000	14,805	PLANT MIX BIT SURF GR S - 19 MM	MT	$24.13	$357,245.00		$357,245.00
401100000	118	DUST PALLIATIVE	MT	$155.97	$18,404.00		$18,404.00
401200000	207	HYDRATED LIME	MT	$150.72	$31,199.00		$31,199.00
402097000	800	ASPHALT CEMENT PG 70-28	MT	$481.02	$384,816.00		$384,816.00
402225000	119	EMULSIFIED ASPHALT CRS-2P	MT	$447.98	$53,310.00		$53,310.00
557310000	250	PEDESTRIAN RAIL	M	$250.00	$62,500.00		$62,500.00
606000000	125	GUARD RAIL-STEEL	M	$52.49	$6,561.00		$6,561.00
608100000	7,932	SIDEWALK-CONCRETE 100 MM	M2	$56.79	$450,458.00		$450,458.00
608150000	1,082	SIDEWALK-CONCRETE 150 MM	M2	$95.70	$103,547.00		$103,547.00
608290100	142	TRUNCATED DOMES	M2	$534.27	$75,866.00		$75,866.00
608500100	3,740	CONCRETE 100 MM	M2	$69.38	$259,481.00		$259,481.00
609000000	6,075	CURB & GUTTER-CONCRETE	M	$68.70	$417,353.00		$417,353.00
610300000	30,000	SODDING	M2	$10.66	$319,800.00		$319,800.00
614000000	1,500	RETAINING WALL	M2	$521.55	$782,325.00		$782,325.00
619690000	100	SIGN - INSTALL	EACH	$1,250.00	$125,000.00		$125,000.00
619700000	100	REMOVE SIGNS	EACH	$40.90	$4,090.00		$4,090.00
620010000	540	STRIPING-WHITE PAINT	L	$5.91	$3,191.00		$3,191.00
620020000	377	STRIPING-YELLOW PAINT	L	$6.96	$2,624.00		$2,624.00
620045000	728	YELLOW CURB MARKING EPOXY	L	$69.43	$50,545.00		$50,545.00
620110000	540	STRIPING-WHITE EPOXY	L	$13.72	$7,409.00		$7,409.00
620120000	377	STRIPING-YELLOW EPOXY	L	$13.62	$5,135.00		$5,135.00
620130000	100	WORDS/SYMBOLS-WHITE EPOXY	L	$69.69	$6,969.00		$6,969.00
621421000	72	ADJUST DROP INLET	EACH	$1,400.00	$100,800.00		$100,800.00
621430000	47	ADJUST MANHOLES	EACH	$557.09	$26,183.00		$26,183.00
621440000	8	ADJUST FIRE HYDRANT	EACH	$1,550.00	$12,400.00		$12,400.00
855000100	1	LANDSCAPING	LS	$25,000.00	$25,000.00		$25,000.00
	1	Irrigation Structure	LS	$300,000.00	$300,000.00		$300,000.00
	31	Adjust Water Valve	EACH	$325.00	$10,075.00		$10,075.00
	1	Bridge over Clark Fork River	LS	$7,220,000.00	$7,220,000.00		$7,220,000.00
	2	Railroad Gates	EACH	$180,000.00	$360,000.00		$360,000.00
	34	Railroad Gate Concrete Crossing Surface	M	$3,281.00	$111,160.00		$111,160.00
	2	Roundabout Intersections	EACH	$400,000.00	$800,000.00		$800,000.00
	4	Signalized Intersections	EACH	$250,000.00	$1,000,000.00		$1,000,000.00
	38	Dry Wells	EACH	$10,000.00	$380,000.00		$380,000.00
	1	Knowles Pedestrian Tunnel	LS	$701,643.00	$701,643.00		$701,643.00
	1	Dakota Pedestrian Tunnel	LS	$244,000.00	$244,000.00		$244,000.00
	1	Wyoming St. Addition	LS	$969,593.00	$969,593.00		$969,593.00
		Subtotal			$19,279,652.00		$19,279,652.00
	8%	Mobilization			$1,542,372.16		$1,542,372.16
		Subtotal			$20,822,024.16		$20,822,024.16
	25%	Contingency			$5,205,506.04		$5,205,506.04
		Subtotal			$26,027,530.20		$26,027,530.20
	3%	Inflation	Years	3.00	$2,413,454.79		$2,413,454.79
		Construction Total			$28,440,984.99		**$28,440,984.99**
	15%	**Construction Engineering**			$4,266,147.75		**$4,266,147.76**
		Total Construction			$32,707,132.74		**$32,707,132.74**
	16,638	Right-Of-Way	M2	$130.00	$2,162,940.00		$2,162,940.00
	1	Right-Of-Way (Compensation for Structures)	LS	$4,288,002.00	$4,288,002.00		$4,288,002.00
		Total Right of Way					**$6,460,942.00**
		Total Construction + ROW					**$39,168,074.74**

Project Length	km	2.70			
Average Project Finish Top Width	m	25.00			
Cost per Kilometer (Uses Construction Total)					$10,533,698.15
Cost per Sq. Meter (Uses Construction Total)					$421.35

IV. Typical Sections for the South 3rd Street Alternatives

Alternative A – No Build

Alternative A is the No-Build Alternative and would provide no improvements to South 3rd Street. Routine maintenance would continue in accordance with City and State policies. The following provides a summary of the major features:

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Signalized Intersection Control at:

Reserve Street
Russell Street

All other streets intersecting South 3rd Street are, and would be controlled by stop signs.

There are no raised medians or center turn lanes.

Alternative B - 2 Lanes with Roundabouts

Alternative B has the same lane configuration as Alternative A (existing conditions/No Build), but includes bicycle lanes, boulevards, sidewalks, and roundabouts at select intersections.

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

Schilling Street/Curtis Street
Johnson Street
Catlin Street

Signal Control at:

Reserve Street (existing)

All other streets intersecting South 3rd Street would be controlled by stop signs.

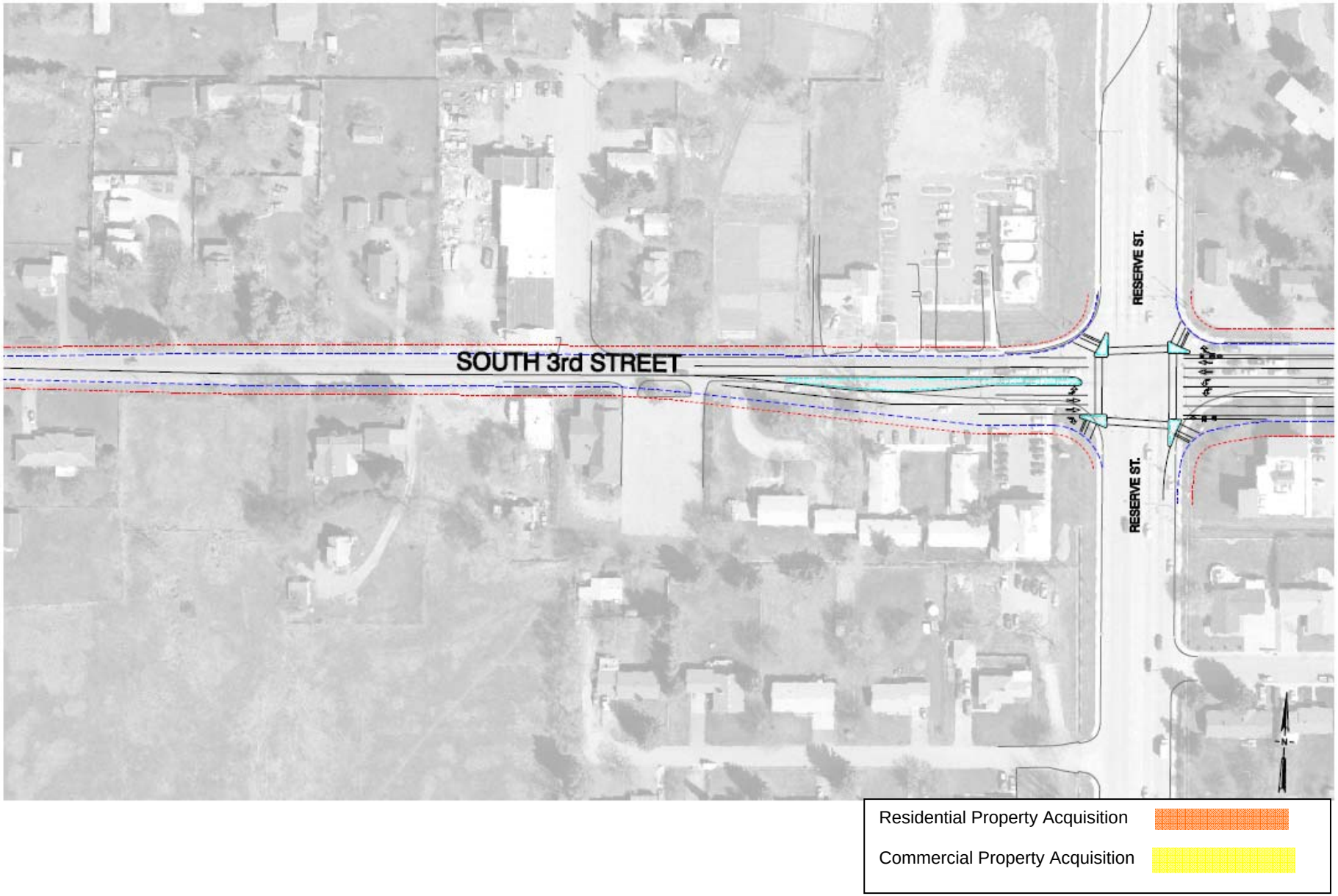
Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

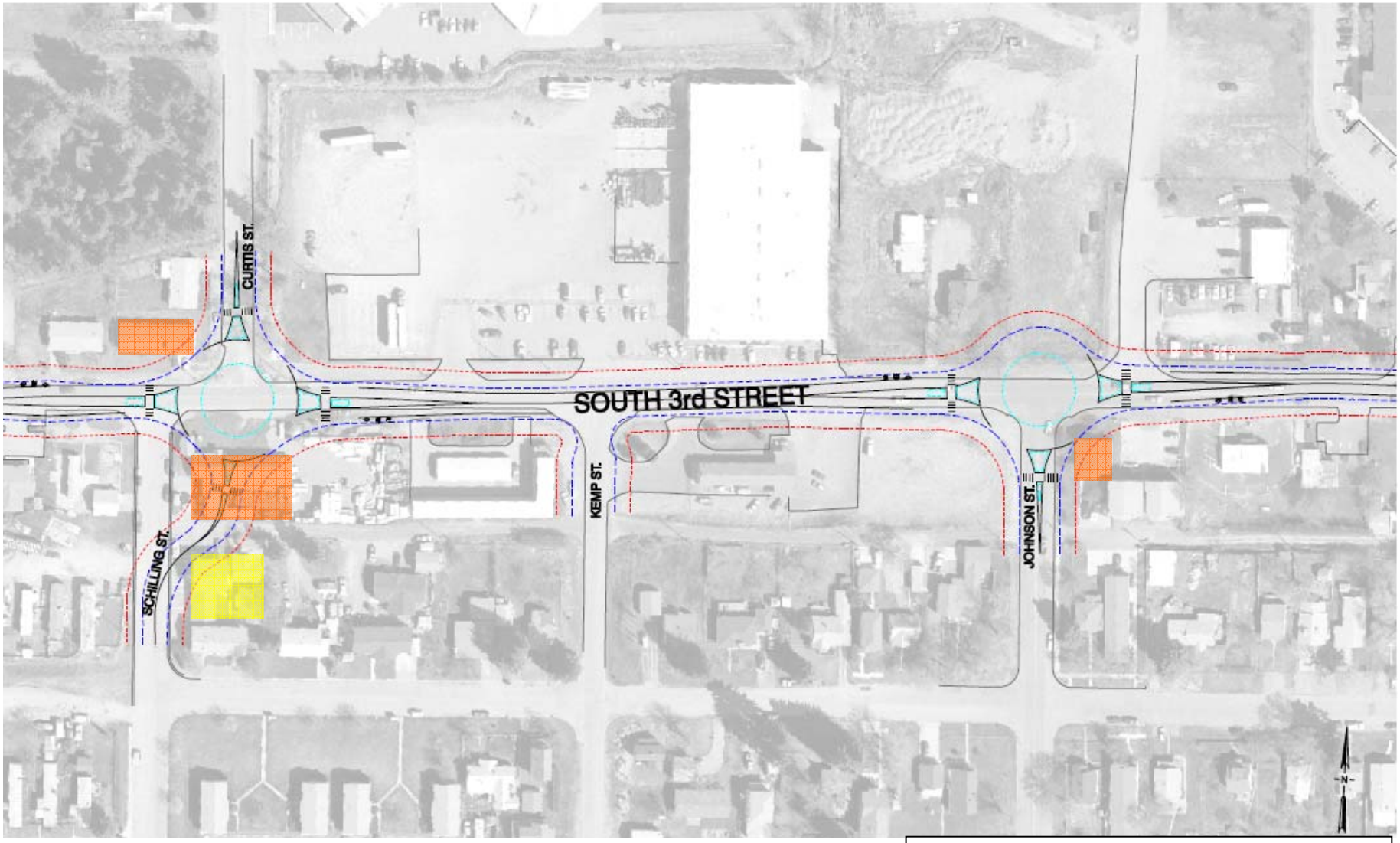
The existing alignment would be shifted to accommodate one-lane roundabouts at Curtis Street/Schilling Street, Johnson Street, and Catlin Street. The shift in alignment would minimize impacts on adjacent properties.

South 3rd Street Alternative B

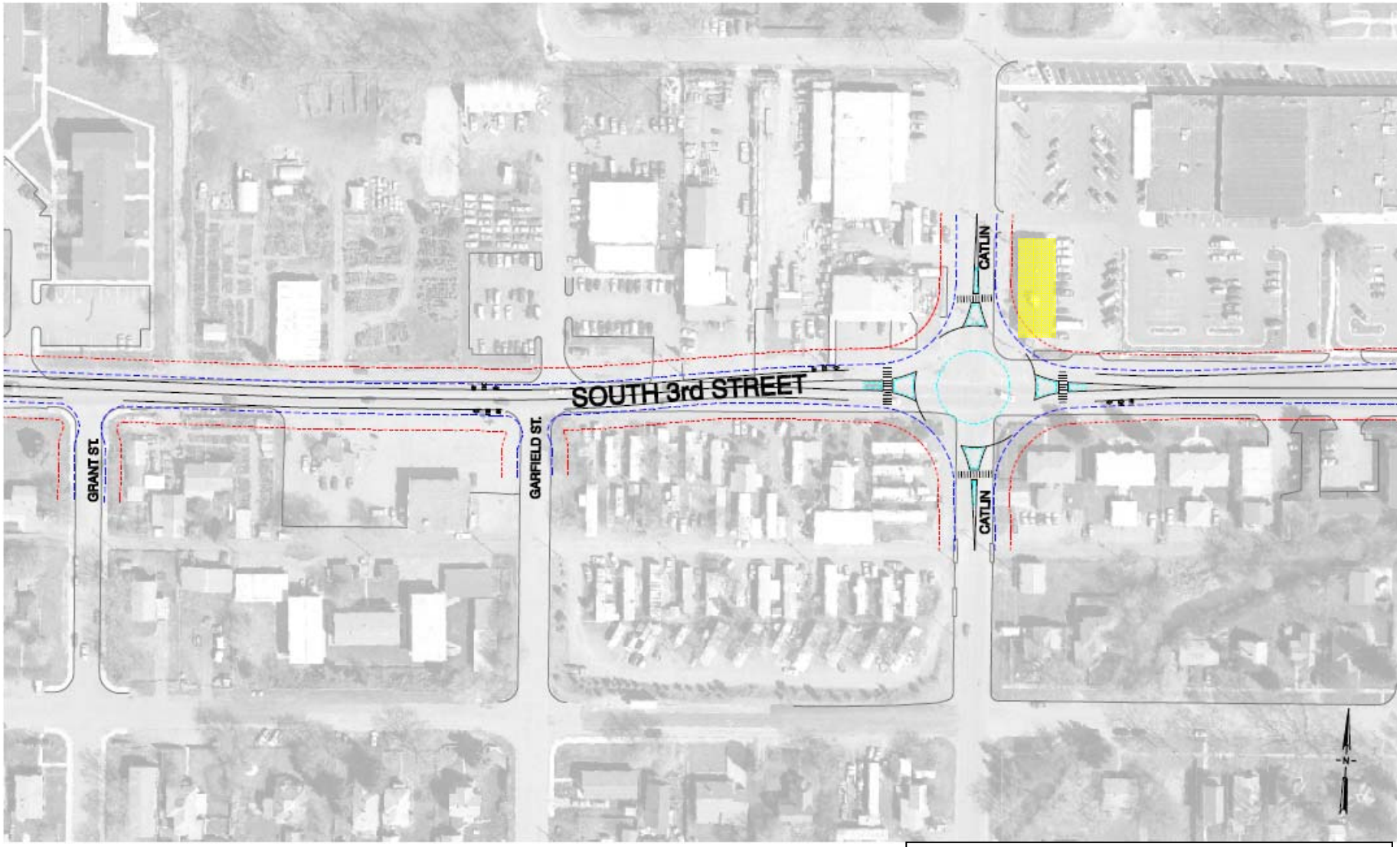


South 3rd Street Alternative B

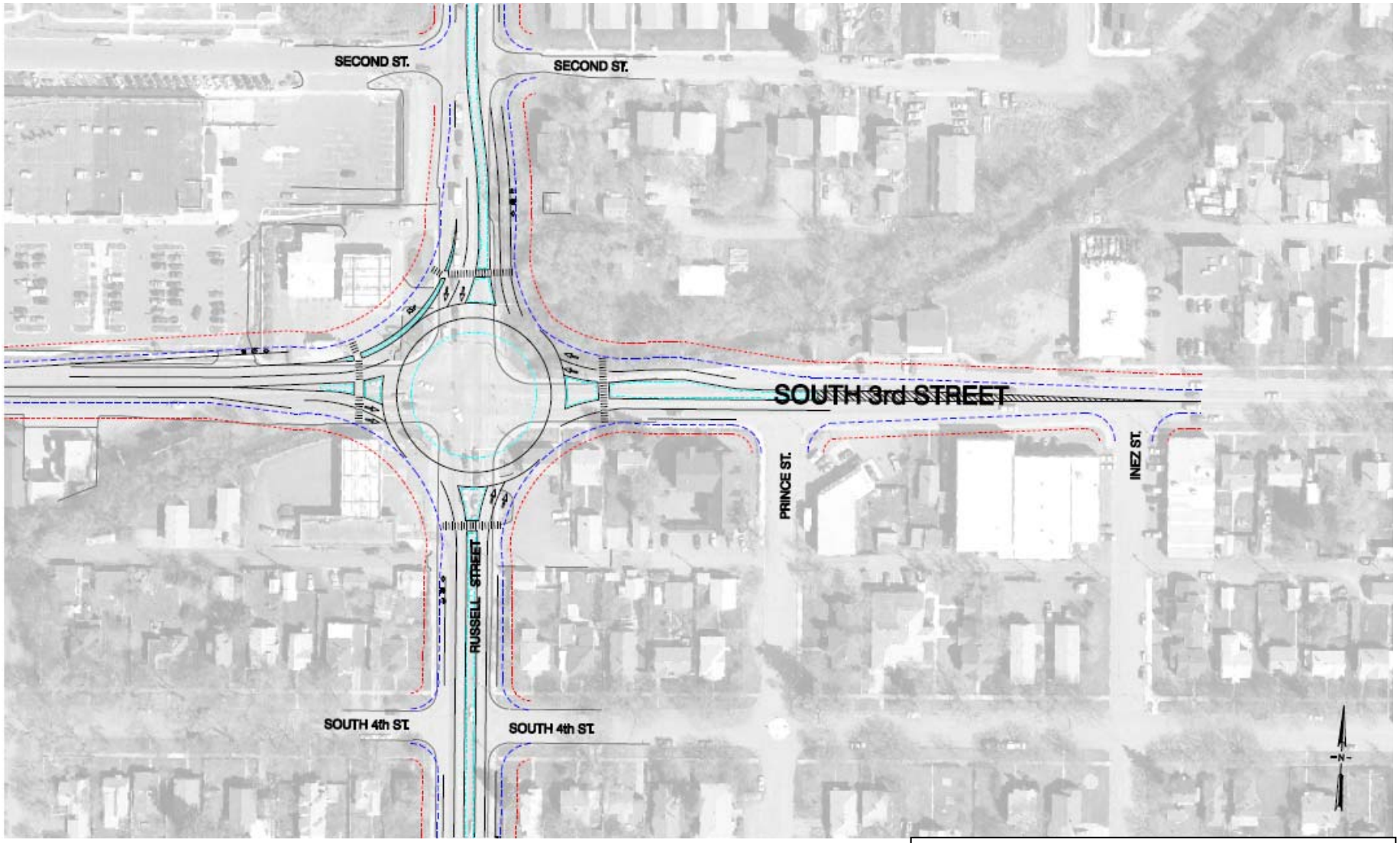
South 3rd Street Alternative B



South 3rd Street Alternative B



South 3rd Street Alternative B



Montana Department of Transportation

Bid Prices
Jul06-Jan07

Preliminary Estimate

Project Title:	3rd St. - Missoula (EIS)	Prepared by:	HKM Engineering Inc.
Project Number:	Alternative B	Date:	December 7, 2007
Project Length:	2.120 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	3581	D.A. Approval.:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	$5,000.00	$10,000.00		$10,000.00
202013000	5	REMOVE STRUCTURE	EACH	$50,000.00	$250,000.00		$250,000.00
202110000	1,175	REMOVE CONCRETE PAVEMENT	M2	$11.36	$13,336.00		$13,336.00
202120000	26,803	REMOVE BITUMINOUS PAVEMENT	M2	$2.18	$58,431.00		$58,431.00
202230000	2,516	REMOVE CURB & GUTTER	M	$57.03	$143,466.00		$143,466.00
202241000	2,436	REMOVE SIDEWALK	M2	$13.86	$33,762.00		$33,762.00
203120000	21,794	EXCAVATION-STREET	M3	$18.91	$412,125.00		$412,125.00
203300000	5,487	EMBANKMENT IN PLACE	M3	$7.18	$39,395.00		$39,395.00
301270000	16,446	CRUSHED AGGREGATE COURSE	M3	$28.14	$462,790.00		$462,790.00
301440020	35,752	COVER - TYPE 2	M2	$0.76	$27,172.00		$27,172.00
401080000	8,176	PLANT MIX BIT SURF GR S - 19 MM	MT	$24.13	$197,287.00		$197,287.00
401100000	65	DUST PALLIATIVE	MT	$155.97	$10,138.00		$10,138.00
401200000	114	HYDRATED LIME	MT	$150.72	$17,182.00		$17,182.00
402097000	442	ASPHALT CEMENT PG 70-28	MT	$481.02	$212,611.00		$212,611.00
402225000	66	EMULSIFIED ASPHALT CRS-2P	MT	$447.98	$29,567.00		$29,567.00
608100000	6,238	SIDEWALK-CONCRETE 100 MM	M2	$56.79	$354,256.00		$354,256.00
608150000	1,714	SIDEWALK-CONCRETE 150 MM	M2	$96.70	$164,030.00		$164,030.00
608290100	43	TRUNCATED DOMES	M2	$534.27	$22,856.00		$22,856.00
608500100	630	CONCRETE 100 MM	M2	$69.38	$43,723.00		$43,723.00
609000000	6,274	CURB & GUTTER-CONCRETE	M	$68.70	$431,024.00		$431,024.00
610300000	5,764	SODDING	M2	$10.66	$61,445.00		$61,445.00
614000000	1,315	RETAINING WALL	M2	$521.55	$685,838.00		$685,838.00
619690000	50	SIGN - INSTALL	EACH	$1,250.00	$62,500.00		$62,500.00
619700000	50	REMOVE SIGNS	EACH	$40.90	$2,045.00		$2,045.00
620010000	158	STRIPING-WHITE PAINT	L	$5.91	$934.00		$934.00
620045000	956	YELLOW CURB MARKING EPOXY	L	$69.43	$66,396.00		$66,396.00
620110000	158	STRIPING-WHITE EPOXY	L	$13.72	$2,168.00		$2,168.00
620120000	169	STRIPING-YELLOW EPOXY	L	$13.62	$2,302.00		$2,302.00
620130000	14	WORDS/SYMBOLS-WHITE EPOXY	L	$69.69	$976.00		$976.00
621421000	12	ADJUST DROP INLET	EACH	$1,400.00	$16,800.00		$16,800.00
621430000	15	ADJUST MANHOLES	EACH	$557.09	$8,356.00		$8,356.00
621440000	5	ADJUST FIRE HYDRANT	EACH	$1,550.00	$7,750.00		$7,750.00
855000100	1	LANDSCAPING	LS	$25,000.00	$25,000.00		$25,000.00
	26	Adjust Water Valve	EACH	$325.00	$8,450.00		$8,450.00
	0	5 Lane-Roundabout Intersections	EACH	$400,000.00	$0.00		$0.00
	3	3 Lane-Roundabout Intersections	EACH	$300,000.00	$900,000.00		$900,000.00
	1	Signalized Intersections	EACH	$250,000.00	$250,000.00		$250,000.00
	51	Dry Wells	EACH	$10,000.00	$510,000.00		$510,000.00
		Subtotal			$5,544,111.00		$5,544,111.00
	8%	Mobilization			$443,528.88		$443,528.88
		Subtotal			$5,987,639.88		$5,987,639.88
	25%	Contingency			$1,496,909.97		$1,496,909.97
		Subtotal			$7,484,549.85		$7,484,549.85
	3%	Inflation	Years	3.00	$694,019.85		$694,019.85
		Construction Total			$8,178,569.70		**$8,178,569.70**
	15%	**Construction Engineering**			$1,226,785.46		**$1,226,785.46**
		Total Construction			$9,405,355.16		**$9,405,355.16**
	9,648	Right-Of-Way	M2	$130.00	$1,254,240.00		$1,254,240.00
	1	Right-Of-Way (Compensation for Structures)	LS	$1,789,450.00	$1,789,450.00		$1,789,450.00
		Total Right of Way					**$3,043,690.00**
		Total Construction + ROW					**$12,448,045.16**

Project Length	km	2.70			
Average Project Finish Top Width	m	25.00			
Cost per Kilometer (Uses Construction Total)					$3,029,099.89
Cost per Sq. Meter (Uses Construction Total)					$121.16

Residential Impacts under Alternative B

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
South 3rd Street				
1939 3rd St.	1701 3rd St.	2415 3rd St.	1701 3rd St.	1701 3rd St.
2135 3rd St.	2601 3rd St.		1819 3rd St.	
2204 3rd St.			417 Curtis St.	
			1602 Grant St.	

Commercial Impacts under Alternative B

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
South 3rd Street				
1616 3rd St.	2340 3rd St.	1301 3rd St.	1318 3rd St.	2207 3rd St.
2140 4th St.	2600 3rd St.	1655 3rd St.	1855 3rd St.	3210 3rd St. W
		2539 3rd St.	2115 3rd St.	2316 3rd St. W
				2422 3rd St.

Alternative C - 2+ Lanes with Roundabouts

Alternative C includes two travel lanes (one in each direction), roundabouts at select intersections, and the use of raised medians through a majority of the corridor to control through traffic and increase the functionality of the intersections and roundabouts.

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

Schilling Street/Curtis Street
Johnson Street
Catlin Street

Signal Control at:

Reserve Street (existing)

All other streets intersecting South 3rd Street would be controlled by stop signs.

Raised median / Center turn lane:

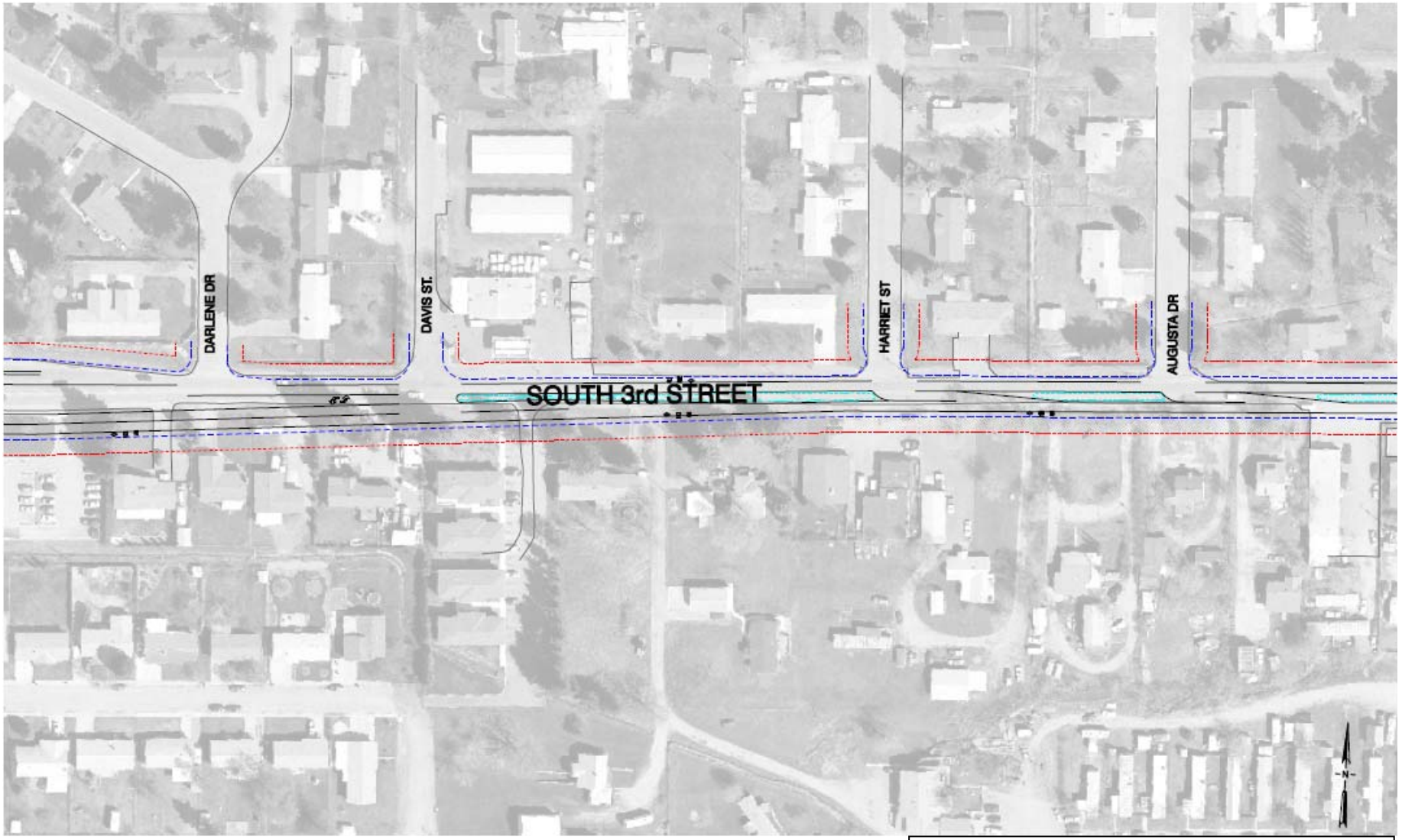
The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

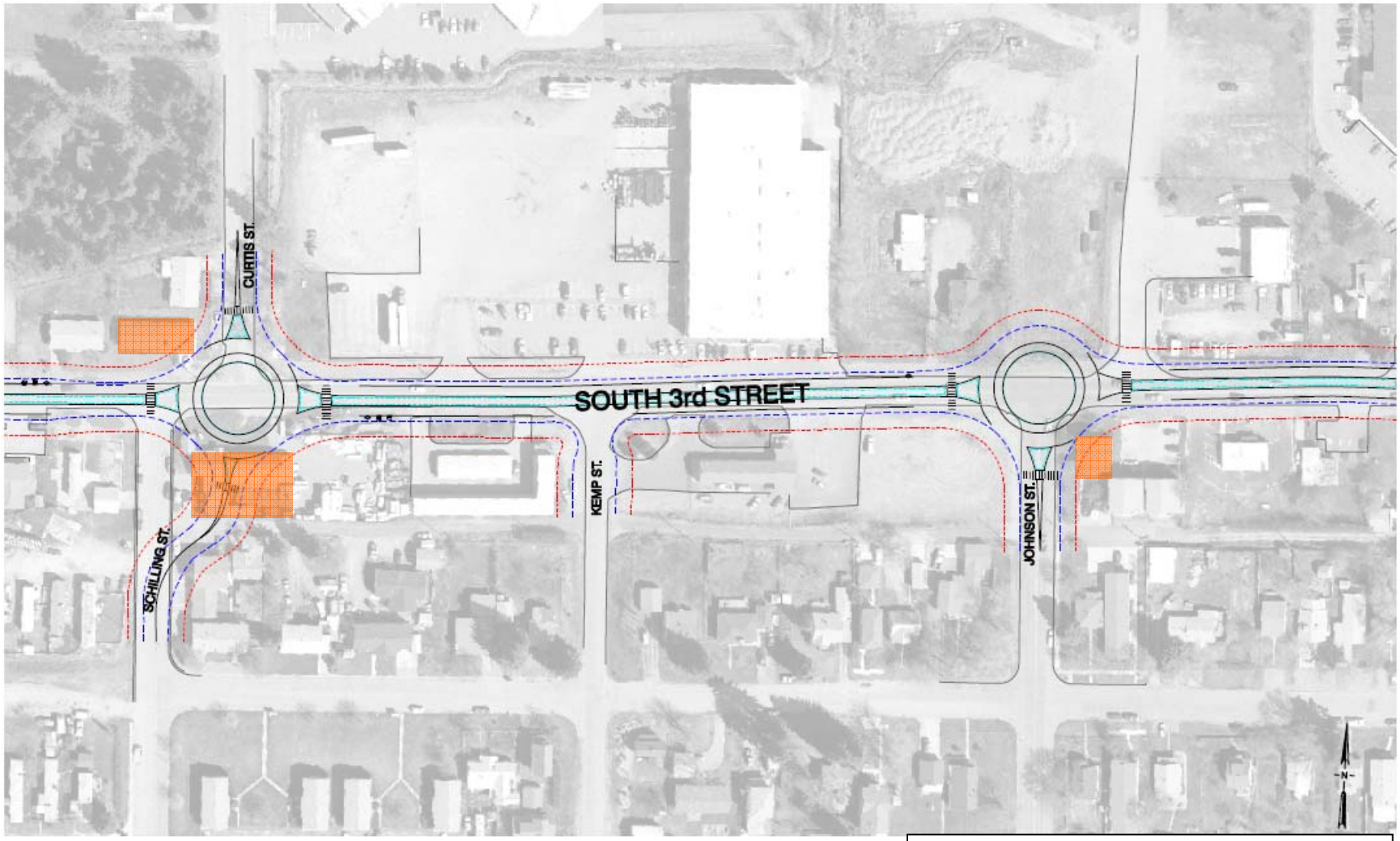
The existing alignment would be shifted to accommodate one-lane roundabouts at Curtis Street/Schilling Street, Johnson Street, and Catlin Street. The shift in alignment would minimize impacts on adjacent properties.

South 3rd Street Alternative C

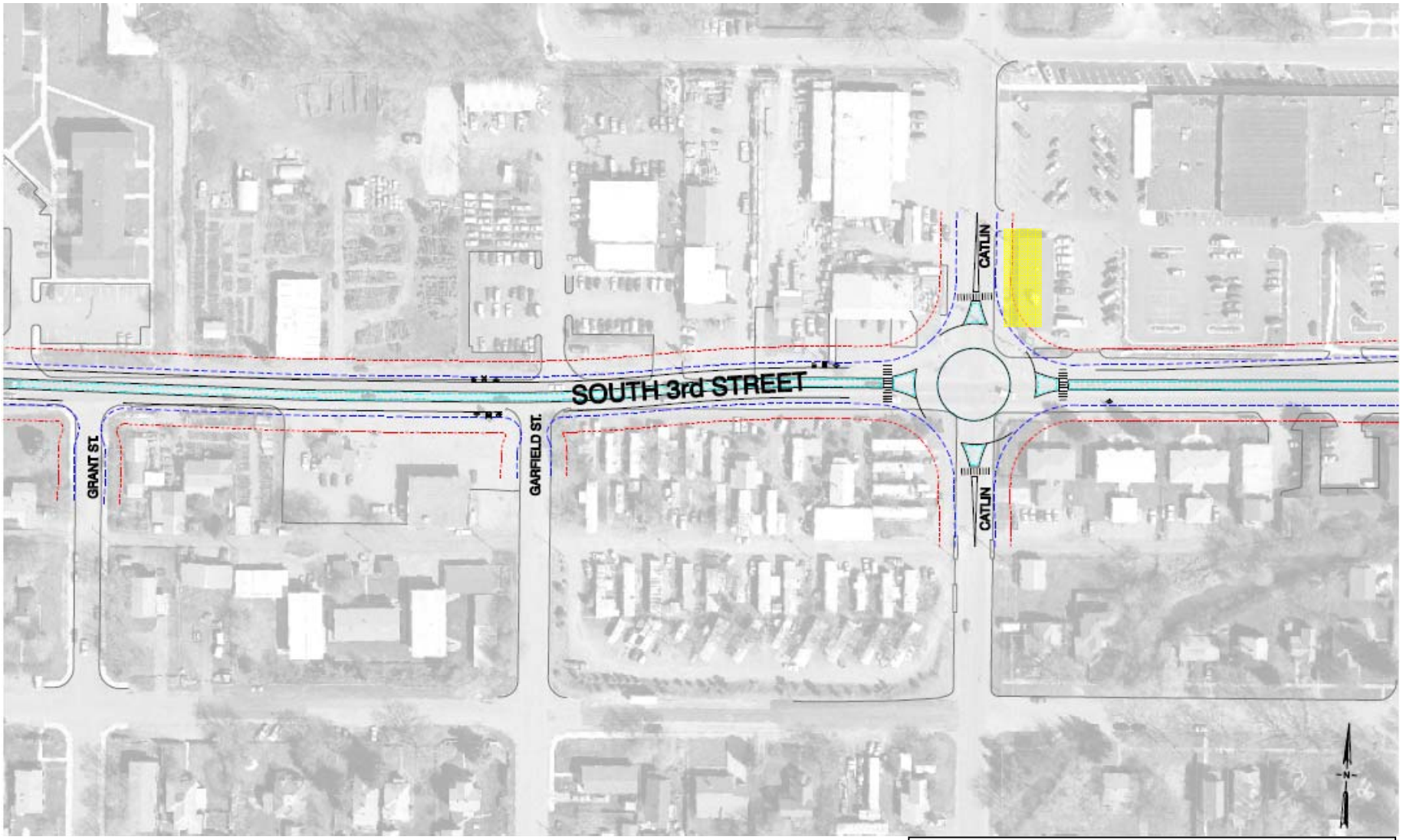
South 3rd Street Alternative C



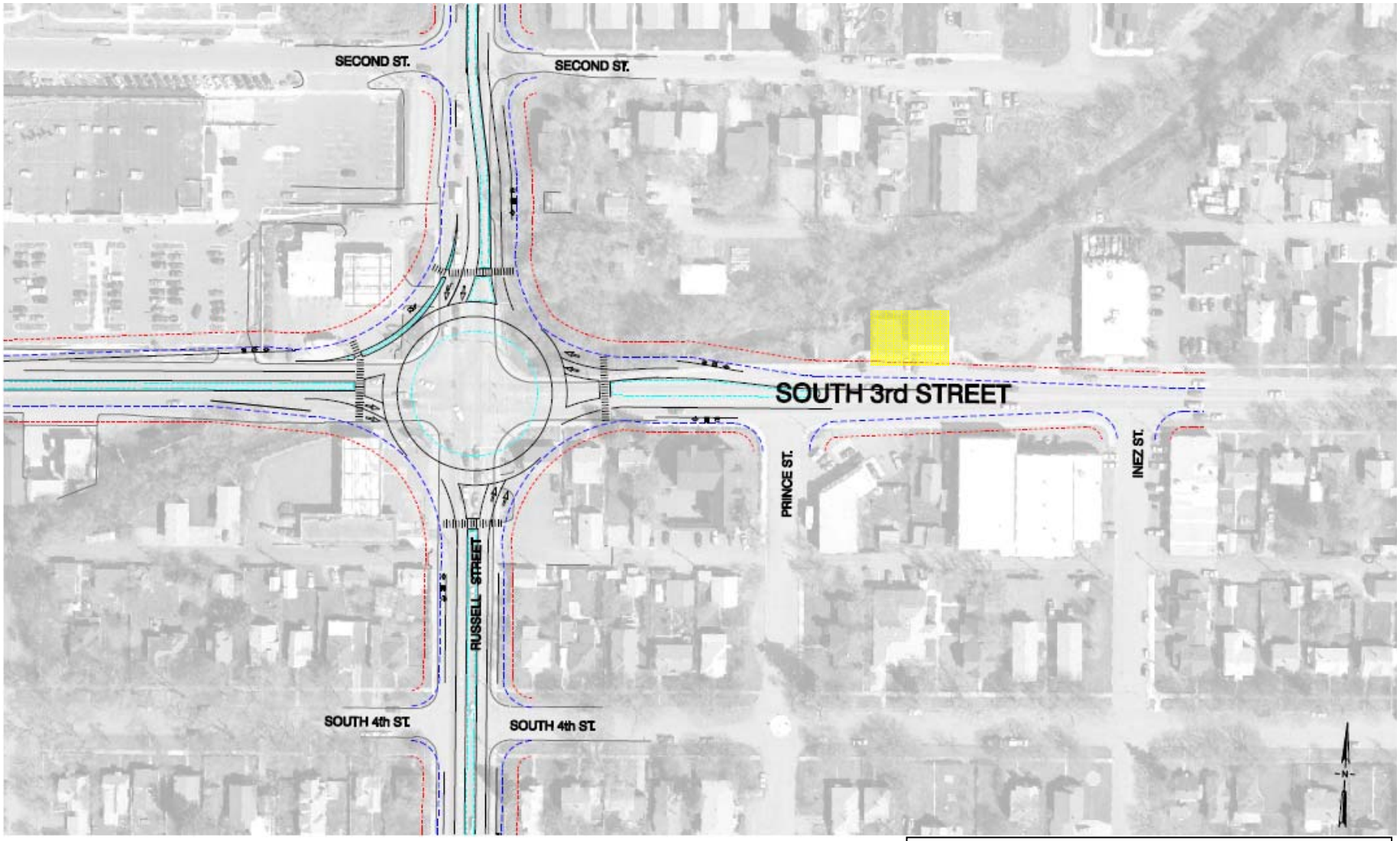
South 3rd Street Alternative C



South 3rd Street Alternative C



South 3rd Street Alternative C



Residential Impacts under Alternative C

Full Acquisition	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
South 3rd Street				
1939 3rd St.	1701 3rd St.	1701 3rd St.	417 Curtis St.	1701 3rd St.
2135 3rd St.	2601 3rd St.	1819 3rd St.		1910 3rd St.
2204 3rd St.		1602 Grant St.		2224 3rd St.
		2415 3rd St.		2422 3rd St.

Commercial Impacts under Alternative C

Full Acquisition	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
South 3rd Street				
1318 3rd St.	2140 4th St.	1301 3rd St.	1290 3rd St.	1920 3rd St.
1616 3rd St.	2340 3rd St.	1855 3rd St.	1541 3rd St.	2002 3rd St.
	2600 3rd St.	2539 3rd St.	1655 3rd St.	2310 3rd St.
			2115 3rd St.	2316 3rd St.
			2207 3rd St.	

Montana Department of Transportation

Bid Prices
Jul06-Jan07

Preliminary Estimate

Project Title:	3rd St. - Missoula (EIS)	Prepared by:	HKM Engineering Inc.
Project Number:	Alternative C	Date:	December 7, 2007
Project Length:	2.120 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	3581	D.A. Approval.:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	$5,000.00	$10,000.00		$10,000.00
202013000	6	REMOVE STRUCTURE	EACH	$50,000.00	$300,000.00		$300,000.00
202110000	1,175	REMOVE CONCRETE PAVEMENT	M2	$11.35	$13,336.00		$13,336.00
202120000	26,803	REMOVE BITUMINOUS PAVEMENT	M2	$2.18	$58,431.00		$58,431.00
202230000	2,516	REMOVE CURB & GUTTER	M	$57.03	$143,466.00		$143,466.00
202241000	2,436	REMOVE SIDEWALK	M2	$13.86	$33,762.00		$33,762.00
203120000	23,770	EXCAVATION-STREET	M3	$18.91	$449,491.00		$449,491.00
203300000	5,806	EMBANKMENT IN PLACE	M3	$7.18	$41,685.00		$41,685.00
301270000	17,936	CRUSHED AGGREGATE COURSE	M3	$28.14	$504,719.00		$504,719.00
301440020	38,992	COVER - TYPE 2	M2	$0.76	$29,634.00		$29,634.00
401080000	8,917	PLANT MIX BIT SURF GR S - 19 MM	MT	$24.13	$215,167.00		$215,167.00
401100000	71	DUST PALLIATIVE	MT	$155.97	$11,074.00		$11,074.00
401200000	125	HYDRATED LIME	MT	$150.72	$18,840.00		$18,840.00
402097000	482	ASPHALT CEMENT PG 70-28	MT	$481.02	$231,852.00		$231,852.00
402225000	72	EMULSIFIED ASPHALT CRS-2P	MT	$447.98	$32,255.00		$32,255.00
608100000	6,157	SIDEWALK-CONCRETE 100 MM	M2	$56.79	$349,656.00		$349,656.00
608150000	1,659	SIDEWALK-CONCRETE 150 MM	M2	$95.70	$158,766.00		$158,766.00
608290100	43	TRUNCATED DOMES	M2	$534.27	$22,856.00		$22,856.00
608500100	2,709	CONCRETE 100 MM	M2	$69.38	$187,943.00		$187,943.00
609000000	7,111	CURB & GUTTER-CONCRETE	M	$68.70	$488,526.00		$488,526.00
610300000	5,876	SODDING	M2	$10.66	$62,643.00		$62,643.00
614000000	1,159	RETAINING WALL	M2	$521.55	$604,263.00		$604,263.00
619690000	50	SIGN - INSTALL	EACH	$1,250.00	$62,500.00		$62,500.00
619700000	50	REMOVE SIGNS	EACH	$40.90	$2,045.00		$2,045.00
620010000	162	STRIPING-WHITE PAINT	L	$5.91	$957.00		$957.00
620045000	1,266	YELLOW CURB MARKING EPOXY	L	$69.43	$87,883.00		$87,883.00
620110000	162	STRIPING-WHITE EPOXY	L	$13.72	$2,223.00		$2,223.00
620120000	210	STRIPING-YELLOW EPOXY	L	$13.62	$2,867.00		$2,867.00
620130000	12	WORDS/SYMBOLS-WHITE EPOXY	L	$69.69	$850.00		$850.00
621421000	14	ADJUST DROP INLET	EACH	$1,400.00	$19,600.00		$19,600.00
621430000	20	ADJUST MANHOLES	EACH	$557.09	$11,142.00		$11,142.00
621440000	5	ADJUST FIRE HYDRANT	EACH	$1,550.00	$7,750.00		$7,750.00
855000100	1	LANDSCAPING	LS	$25,000.00	$25,000.00		$25,000.00
	29	Adjust Water Valve	EACH	$325.00	$9,425.00		$9,425.00
	0	5 Lane-Roundabout Intersections	EACH	$400,000.00	$0.00		$0.00
	3	3 Lane-Roundabout Intersections	EACH	$300,000.00	$900,000.00		$900,000.00
	1	Signalized Intersections	EACH	$250,000.00	$250,000.00		$250,000.00
	51	Dry Wells	EACH	$10,000.00	$510,000.00		$510,000.00
		Subtotal			$5,860,607.00		$5,860,607.00
	8%	Mobilization			$468,848.56		$468,848.56
		Subtotal			$6,329,455.56		$6,329,455.56
	25%	Contingency			$1,582,363.89		$1,582,363.89
		Subtotal			$7,911,819.45		$7,911,819.45
	3%	Inflation	Years	3.00	$733,639.28		$733,639.28
		Construction Total			$8,645,458.73		**$8,646,468.73**
	15%	**Construction Engineering**			$1,296,818.81		**$1,296,818.81**
		Total Construction			$9,942,277.54		**$9,942,277.54**
	11,205	Right-Of-Way	M2	$130.00	$1,456,650.00		$1,456,650.00
	1	Right-Of-Way (Compensation for Structures)	LS	$1,438,788.00	$1,438,788.00		$1,438,788.00
		Total Right of Way					**$2,896,438.00**
		Total Construction + ROW					**$12,837,715.54**

Project Length	km	2.70			
Average Project Finish Top Width	m	25.00			
Cost per Kilometer (Uses Construction Total)					$3,202,021.75
Cost per Sq. Meter (Uses Construction Total)					$128.08

Alternative D - 3+ Lanes with Signals

Alternative D would include one eastbound lane, but two westbound lanes due to the close proximity of the proposed traffic signals. The length of the additional lanes and tapers for the proposed signals at the Curtis Street/Schilling Street, Johnson Street and Catlin Street intersections on South 3rd Street overlapped, thus becoming efficient to convert the overlapping tapers into a second westbound travel lane between Reserve Street and Russell Street.

Lane Configuration:

Three travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

None

Signal Control at:

Reserve Street (existing)
Schilling Street/Curtis Street
Johnson Street
Catlin Street

All other streets intersecting South 3rd Street would be controlled by stop signs.

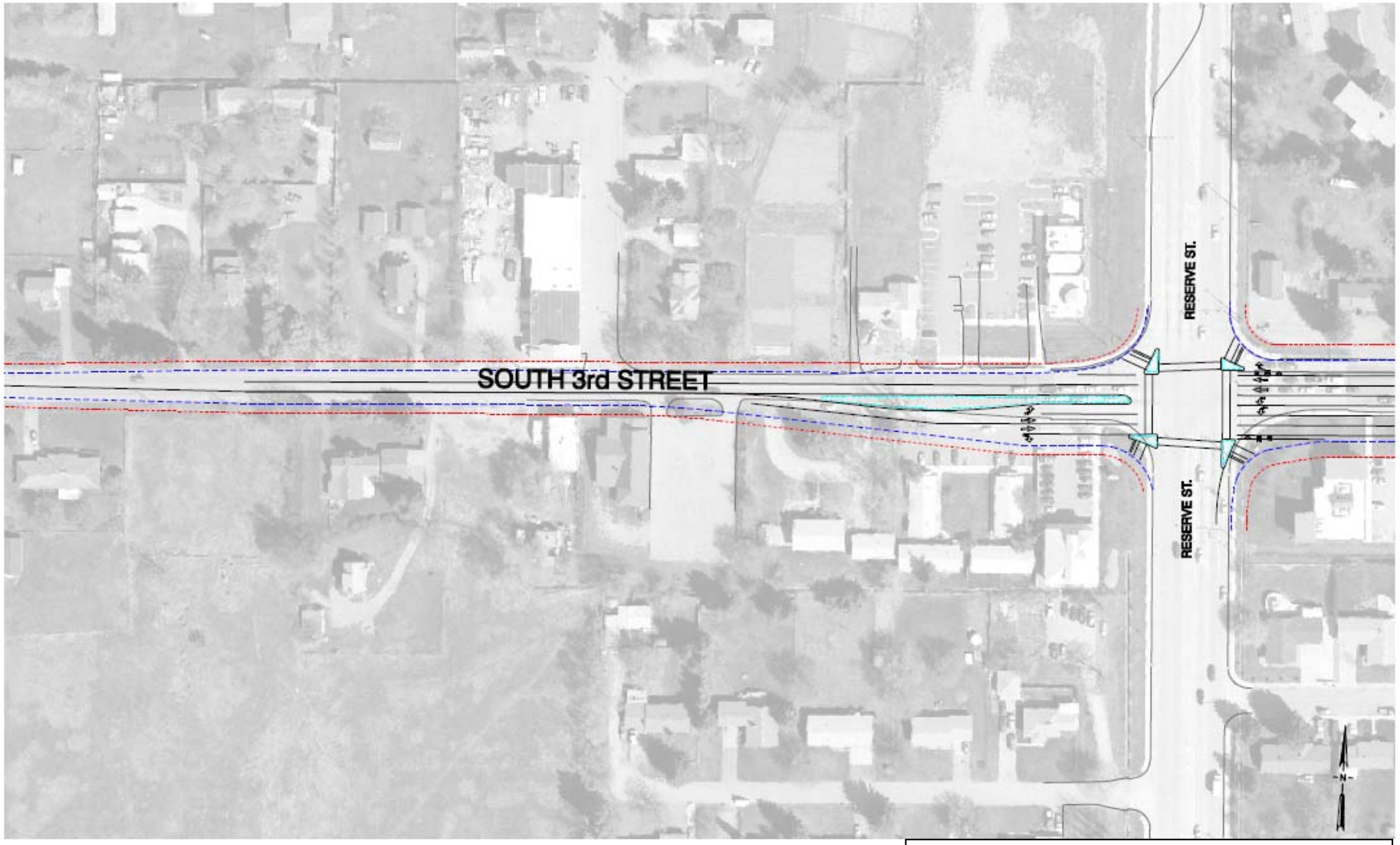
Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

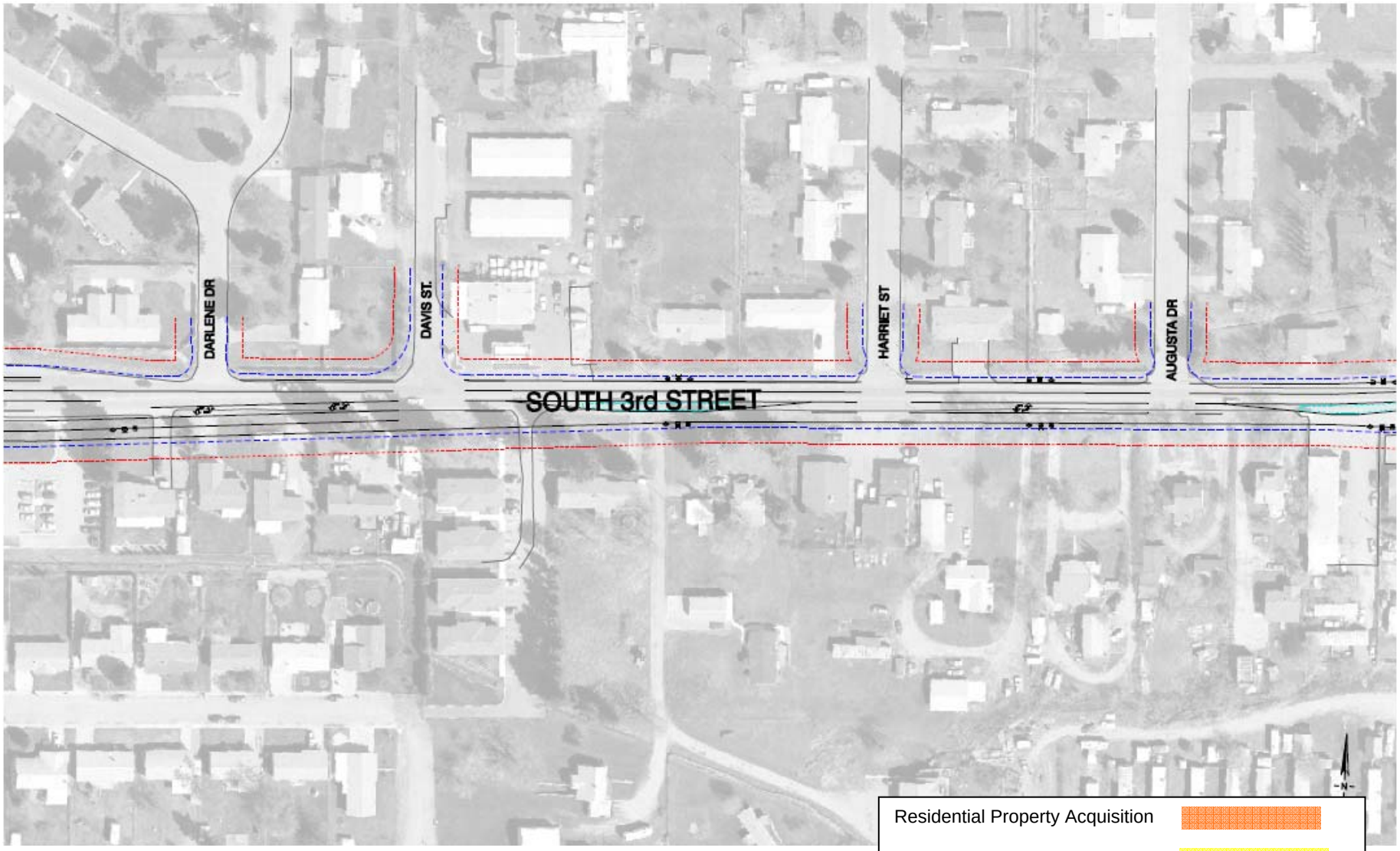
Alignment:

Schilling Street would be realigned to intersect South 3rd Street directly across from Curtis Street.

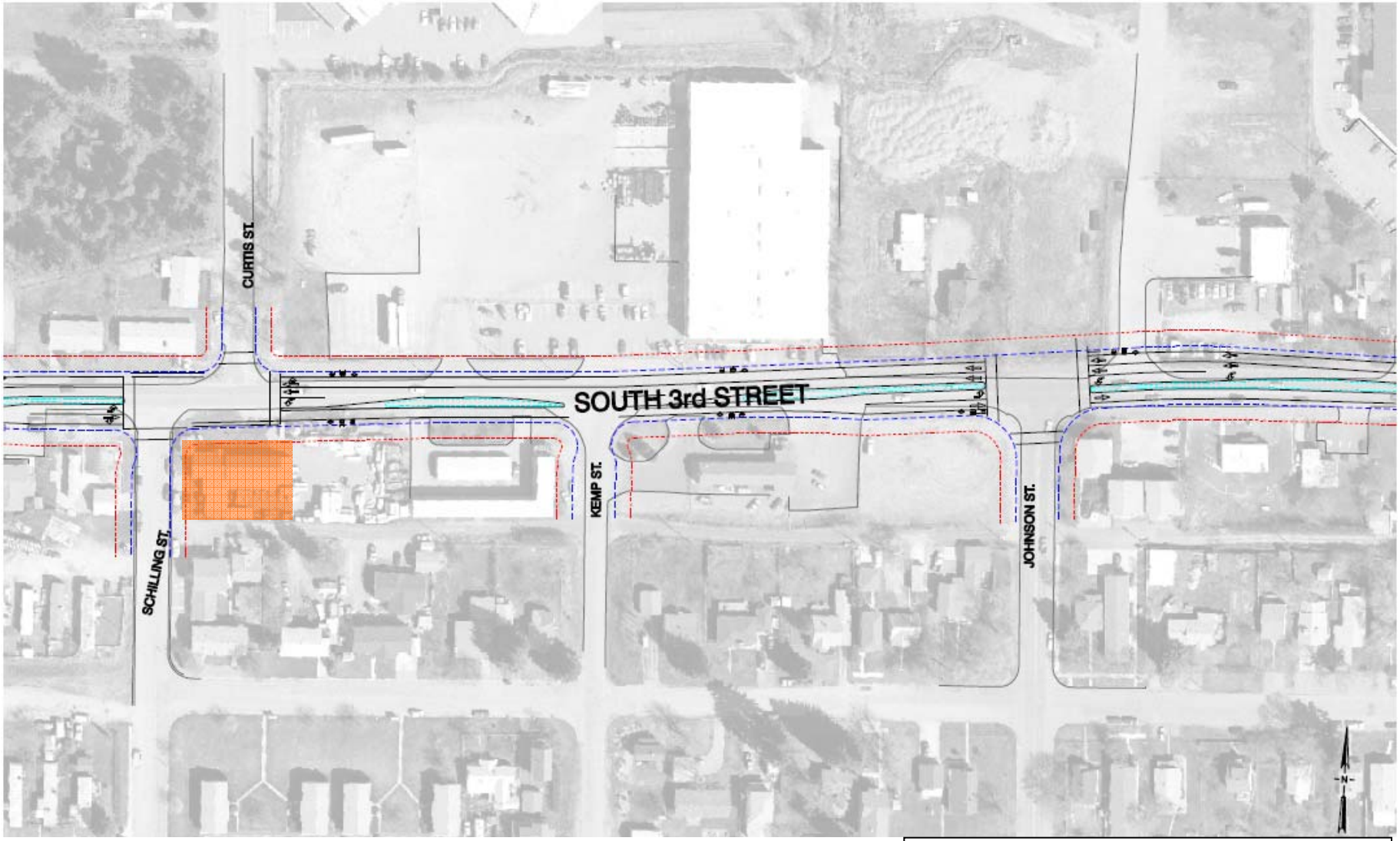
South 3rd Street Alternative D



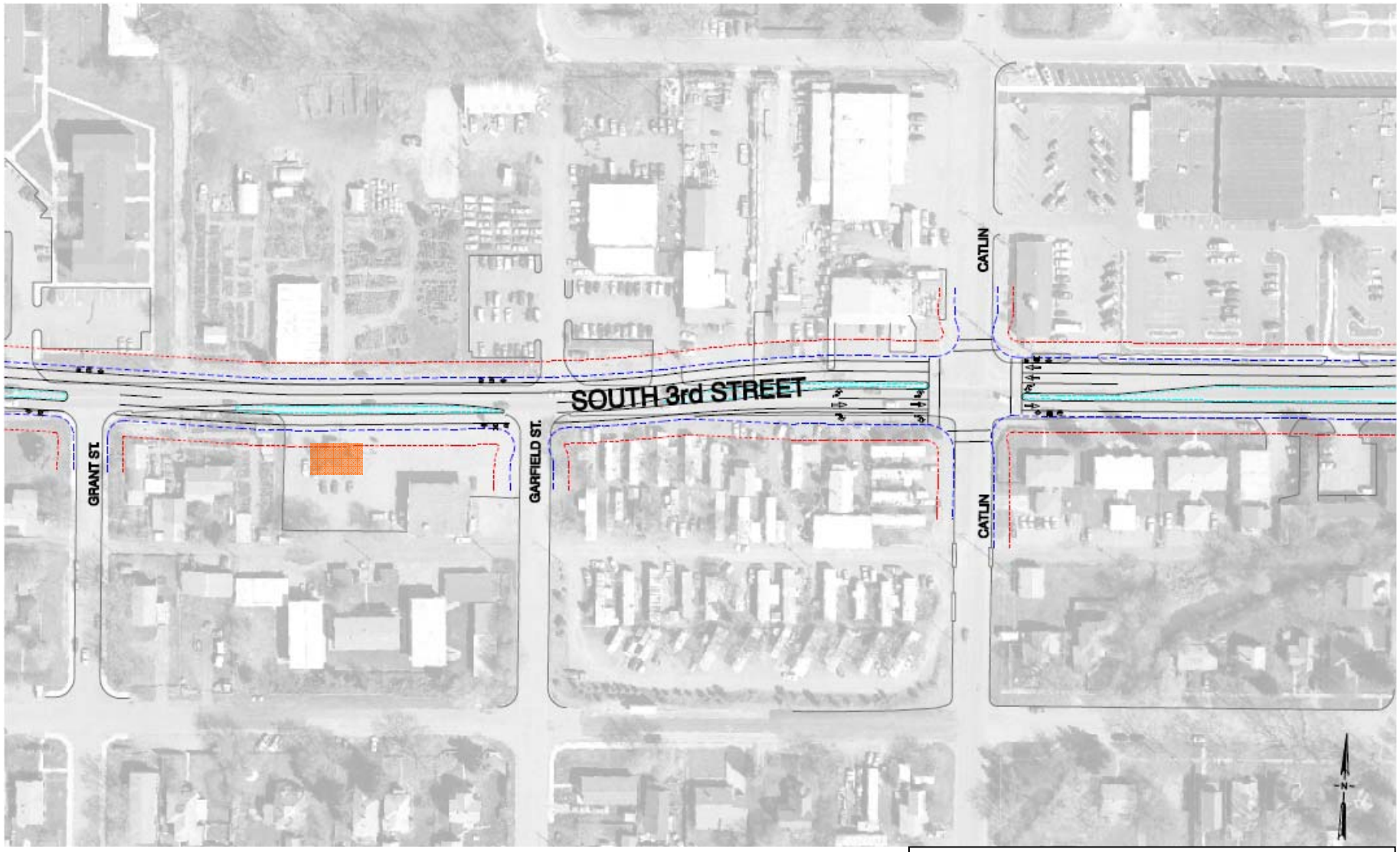
South 3rd Street Alternative D



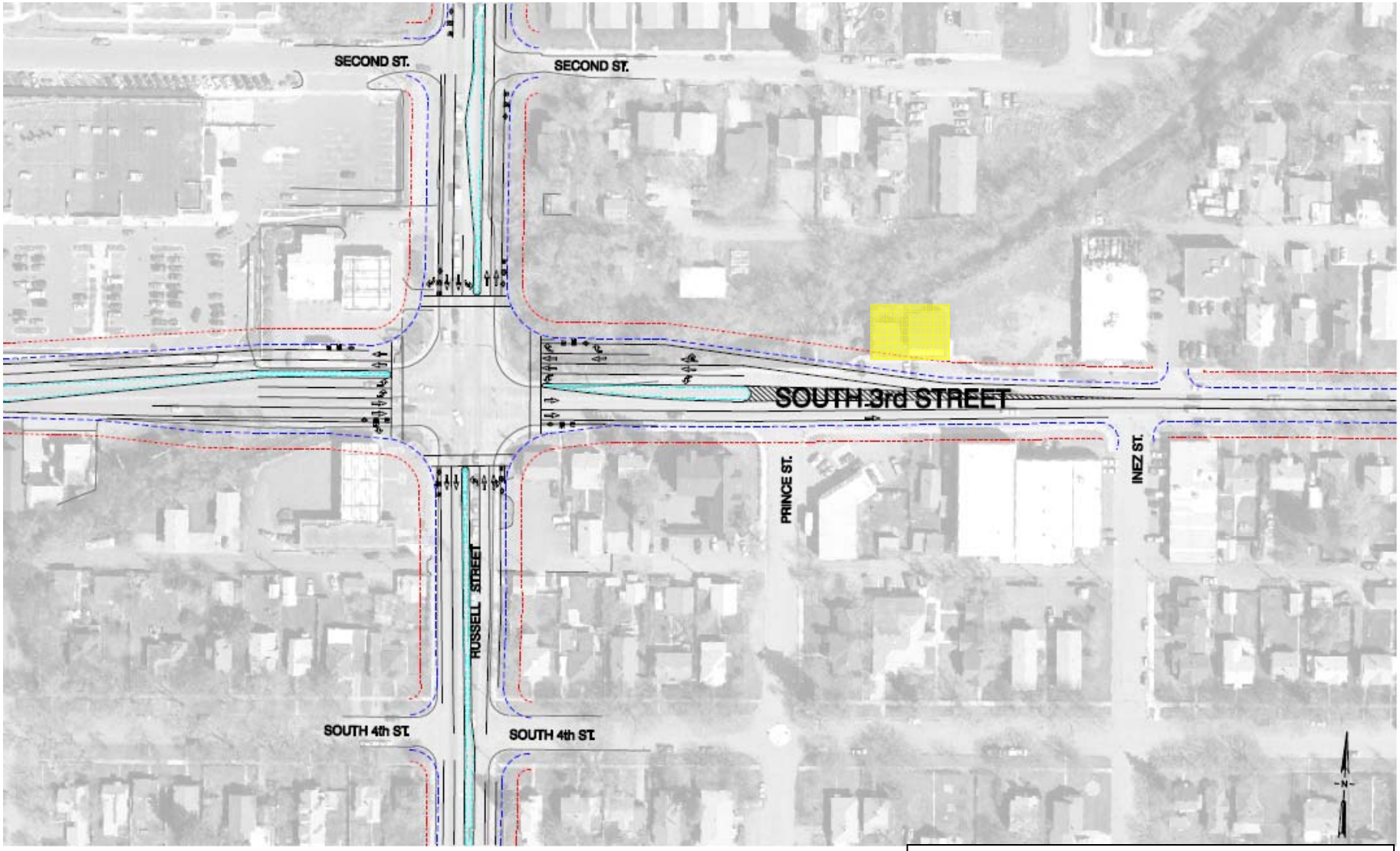
South 3rd Street Alternative D



South 3rd Street Alternative D



South 3rd Street Alternative D



Residential Impacts under Alternative D

Full Acquisition	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
South 3rd Street				
1819 3rd St.	1701 3rd St.	1701 3rd St.	1701 3rd St.	1701 3rd St.
2135 3rd St.	1939 3rd St.	1602 Grant St.	417 Curtis St.	2422 3rd St.
	2601 3rd St.	1910 3rd St.	2224 3rd St.	
		2204 3rd St.	2213 3rd St.	
		2415 3rd St.		
		2539 3rd St.		

Commercial Impacts under Alternative D

Full Acquisition	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
South 3rd Street				
1318 3rd St.	2207 3rd St.	1301 3rd St.	1290 3rd St.	2002 3rd St.
	2340 3rd St.	1855 3rd St.	1541 3rd St.	2249 3rd St.
	2600 3rd St.	1920 3rd St.	2115 3rd St.	2310 3rd St. W
		1616 3rd St.	2140 4th St.	2316 3rd St.
			2221 3rd St.	1655 3rd St.

Montana Department of Transportation

Bid Prices
Jul06-Jan07

Preliminary Estimate

Project Title:	3rd St. - Missoula (EIS)	Prepared by:	HKM Engineering Inc.
Project Number:	Alternative D	Date:	December 7, 2007
Project Length:	2.120 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	3581	D.A. Approval.:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	$5,000.00	$10,000.00		$10,000.00
202013000	2	REMOVE STRUCTURE	EACH	$50,000.00	$100,000.00		$100,000.00
202110000	1,175	REMOVE CONCRETE PAVEMENT	M2	$11.35	$13,336.00		$13,336.00
202120000	26,803	REMOVE BITUMINOUS PAVEMENT	M2	$2.18	$58,431.00		$58,431.00
202230000	2,516	REMOVE CURB & GUTTER	M	$57.03	$143,466.00		$143,466.00
202241000	2,436	REMOVE SIDEWALK	M2	$13.86	$33,762.00		$33,762.00
203120000	27,427	EXCAVATION-STREET	M3	$18.91	$518,645.00		$518,645.00
203300000	5,804	EMBANKMENT IN PLACE	M3	$7.18	$41,669.00		$41,669.00
301270000	20,696	CRUSHED AGGREGATE COURSE	M3	$28.14	$582,385.00		$582,385.00
301440020	44,991	COVER - TYPE 2	M2	$0.76	$34,193.00		$34,193.00
401080000	10,290	PLANT MIX BIT SURF GR S - 19 MM	MT	$24.13	$248,298.00		$248,298.00
401100000	82	DUST PALLIATIVE	MT	$155.97	$12,790.00		$12,790.00
401200000	144	HYDRATED LIME	MT	$150.72	$21,704.00		$21,704.00
402097000	556	ASPHALT CEMENT PG 70-28	MT	$481.02	$267,447.00		$267,447.00
402226000	83	EMULSIFIED ASPHALT CRS-2P	MT	$447.98	$37,182.00		$37,182.00
608100000	6,465	SIDEWALK-CONCRETE 100 MM	M2	$56.79	$367,147.00		$367,147.00
608150000	1,654	SIDEWALK-CONCRETE 150 MM	M2	$95.70	$158,288.00		$158,288.00
608290100	43	TRUNCATED DOMES	M2	$534.27	$22,856.00		$22,856.00
608500100	1,917	CONCRETE 100 MM	M2	$69.38	$133,002.00		$133,002.00
609000000	7,028	CURB & GUTTER-CONCRETE	M	$68.70	$482,824.00		$482,824.00
610300000	5,505	SODDING	M2	$10.56	$58,680.00		$58,680.00
614000000	1,942	RETAINING WALL	M2	$521.55	$1,012,589.00		$1,012,589.00
619690000	50	SIGN - INSTALL	EACH	$1,250.00	$62,500.00		$62,500.00
619700000	50	REMOVE SIGNS	EACH	$40.90	$2,045.00		$2,045.00
620010000	252	STRIPING-WHITE PAINT	L	$5.91	$1,492.00		$1,492.00
620045000	1,166	YELLOW CURB MARKING EPOXY	L	$69.43	$80,950.00		$80,950.00
620110000	252	STRIPING-WHITE EPOXY	L	$13.72	$3,464.00		$3,464.00
620120000	202	STRIPING-YELLOW EPOXY	L	$13.62	$2,755.00		$2,755.00
620130000	37	WORDS/SYMBOLS-WHITE EPOXY	L	$69.69	$2,594.00		$2,594.00
621421000	15	ADJUST DROP INLET	EACH	$1,400.00	$21,000.00		$21,000.00
621430000	20	ADJUST MANHOLES	EACH	$557.09	$11,142.00		$11,142.00
621440000	5	ADJUST FIRE HYDRANT	EACH	$1,550.00	$7,750.00		$7,750.00
855000100	1	LANDSCAPING	LS	$25,000.00	$25,000.00		$25,000.00
	29	Adjust Water Valve	EACH	$325.00	$9,425.00		$9,425.00
	0	5 Lane-Roundabout Intersections	EACH	$400,000.00	$0.00		$0.00
	0	3 Lane-Roundabout Intersections	EACH	$300,000.00	$0.00		$0.00
	4	Signalized Intersections	EACH	$250,000.00	$1,000,000.00		$1,000,000.00
	51	Dry Wells	EACH	$10,000.00	$510,000.00		$510,000.00
		Subtotal			$6,098,811.00		$6,098,811.00
	8%	Mobilization			$487,904.88		$487,904.88
		Subtotal			$6,586,715.88		$6,586,715.88
	25%	Contingency			$1,646,678.97		$1,646,678.97
		Subtotal			$8,233,394.85		$8,233,394.85
	3%	Inflation	Years	3.00	$763,458.00		$763,458.00
		Construction Total			$8,996,852.85		**$8,996,852.85**
	15%	**Construction Engineering**			$1,349,527.93		**$1,349,527.93**
		Total Construction			$10,346,380.78		**$10,346,380.78**
	14,662	Right-Of-Way	M2	$130.00	$1,906,060.00		$1,906,060.00
	1	Right-Of-Way (Compensation for Structures)	LS	$799,058.00	$799,058.00		$799,058.00
		Total Right of Way					**$2,705,118.00**
		Total Construction + ROW					**$13,061,498.78**

Project Length	km	2.70		
Average Project Finish Top Width	m	25.00		
Cost per Kilometer (Uses Construction Total)				$3,332,167.72
Cost per Sq. Meter (Uses Construction Total)				$133.29

Alternative E - 2+ Lanes with Signals

Alternative E includes two travel lanes (one in each direction), the use of raised medians and center turn lanes, and signalized intersections.

Lane Configuration:

Two travel lanes from Reserve Street to Russell Street

Intersection Control:

The intersection control at Russell Street would be determined by the selection of one of Alternatives 1 through 5.

Two-Lane Roundabouts at:

None

Single-Lane Roundabouts at:

None

Signal Control at:

Reserve Street (existing)
Schilling Street/Curtis Street
Johnson Street
Catlin Street

All other streets intersecting South 3rd Street would be controlled by stop signs.

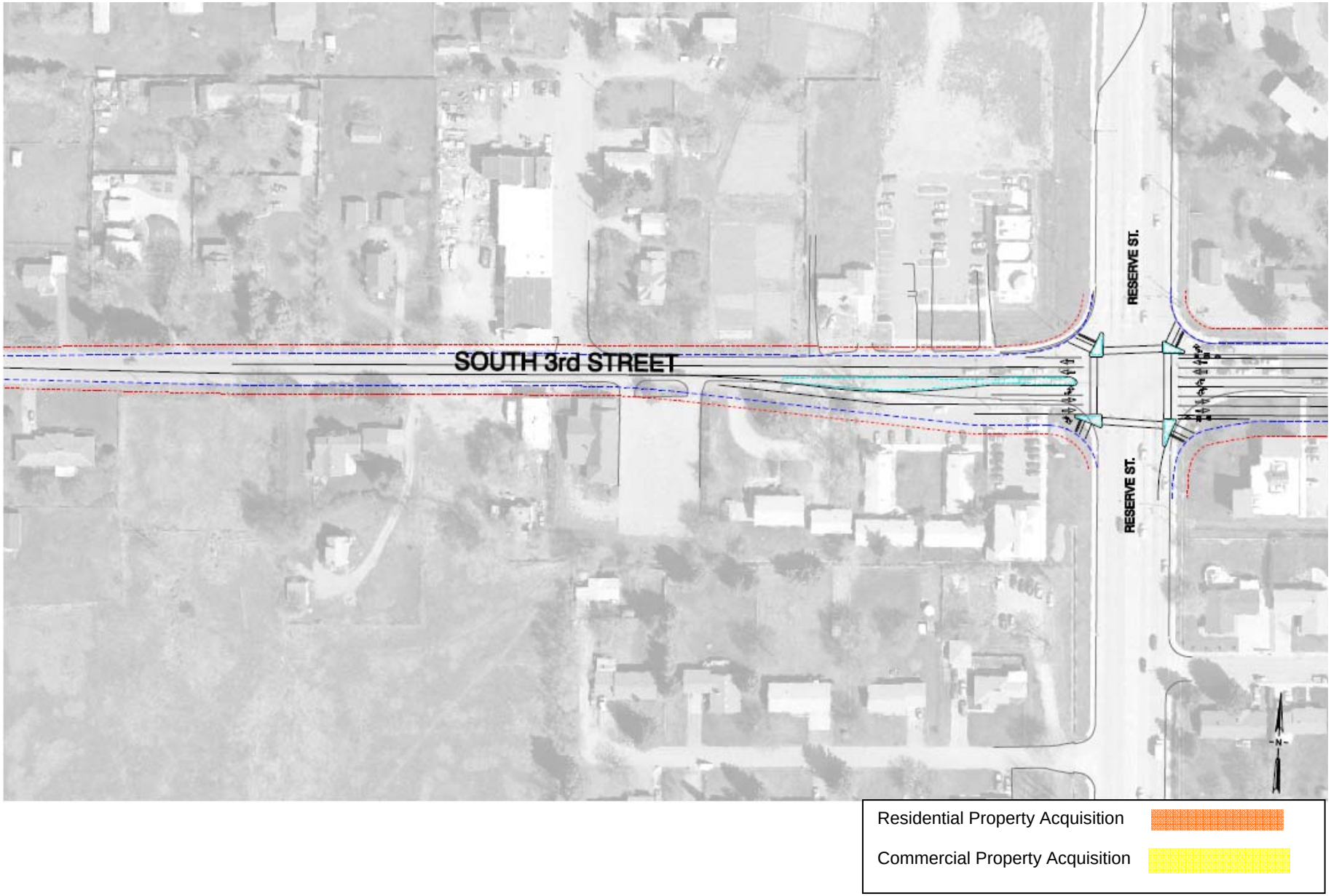
Raised median / Center turn lane:

The locations of raised medians and center turn lanes are conceptual and subject to change during final design.

Alignment:

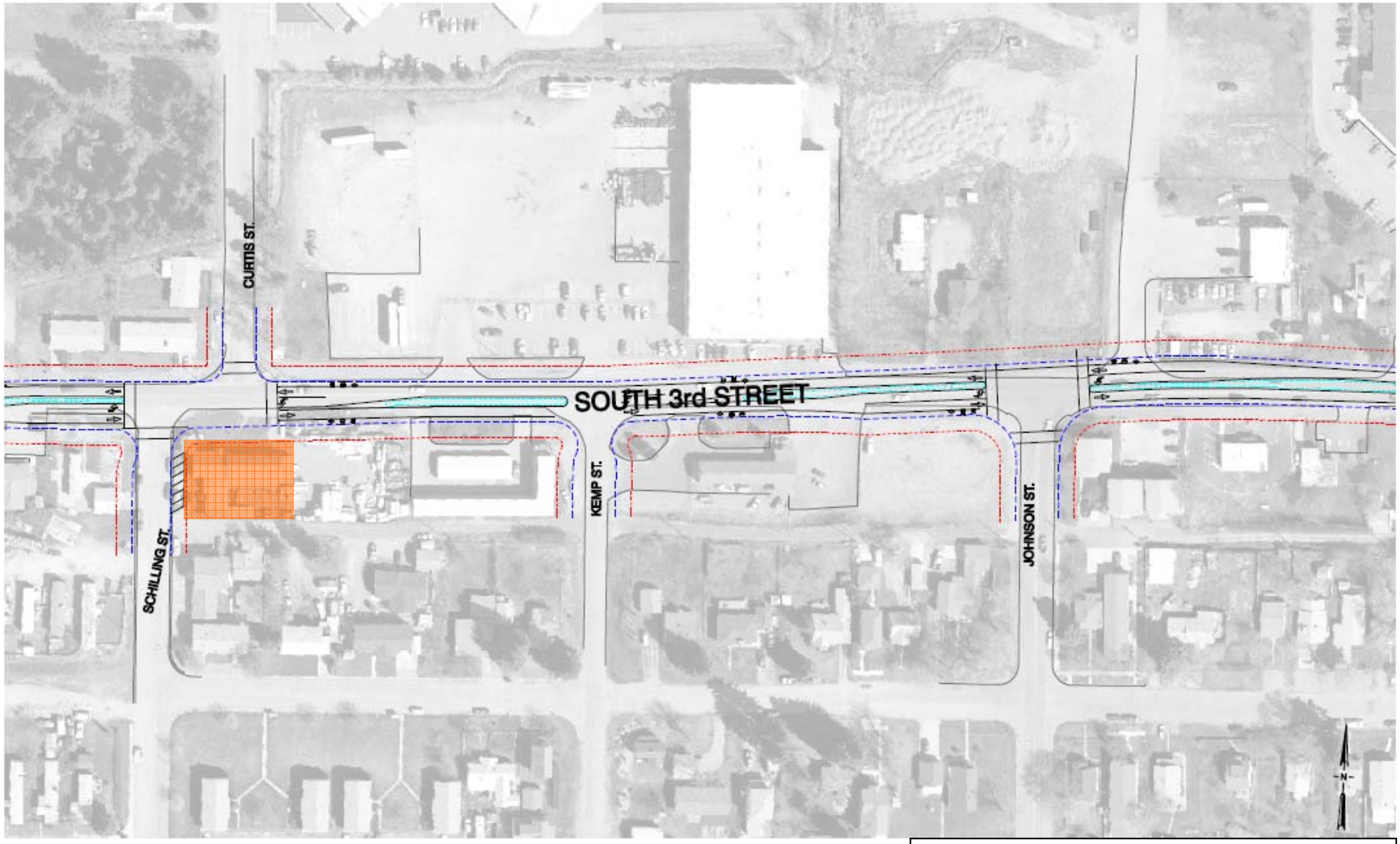
Schilling Street would be realigned to intersect South 3rd Street directly across from Curtis Street.

South 3rd Street Alternative E

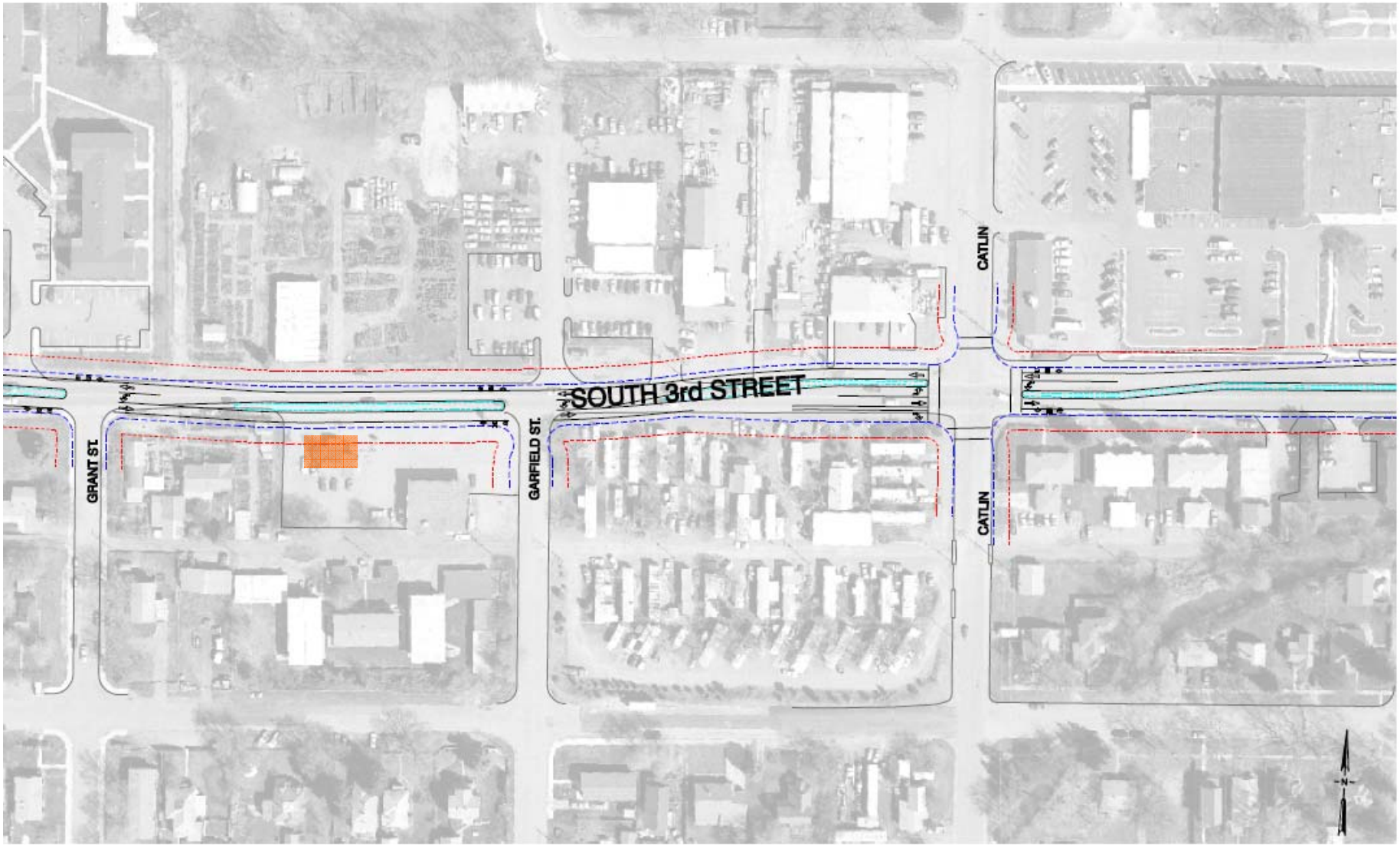


South 3rd Street Alternative E

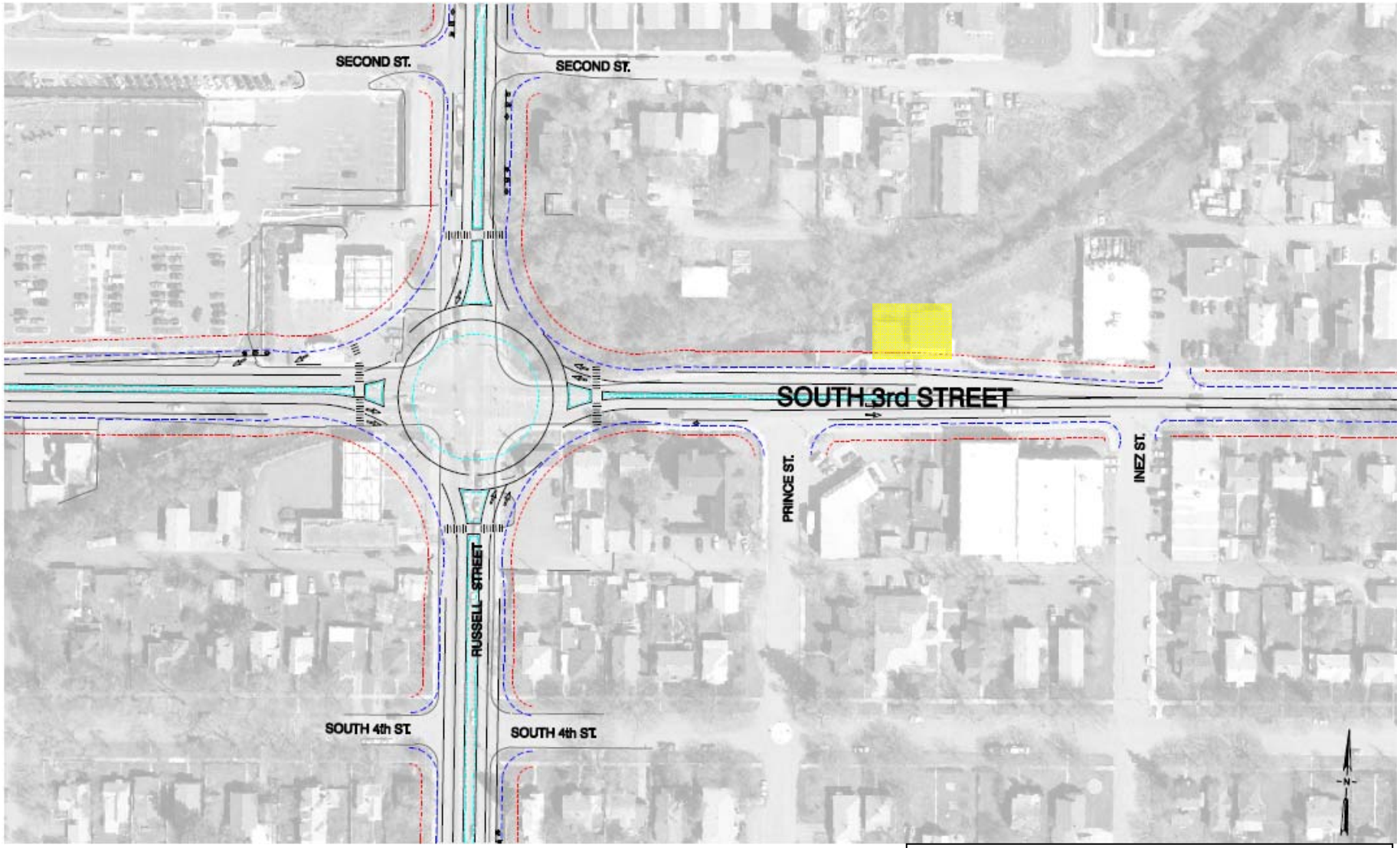
South 3rd Street Alternative E



South 3rd Street Alternative E



South 3rd Street Alternative E



Residential Impacts under Alternative E

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
South 3rd Street				
1819 3rd St.	1701 3rd St.	1701 3rd St.	1701 3rd St.	1701 3rd St.
2135 3rd St.	1939 3rd St.	1602 Grant St.	417 Curtis St.	2422 3rd St.
	2601 3rd St.	2415 3rd St.		1910 3rd St.
		2539 3rd St.		2204 3rd St.

Commercial Impacts under Alternative E

Full Acquisition*	Less than 5 feet from structure	5 to 10 feet from structure	10 to 15 feet from structure	15 to 20 feet from structure
South 3rd Street				
1318 3rd St.	2207 3rd St.	1301 3rd St.	1290 3rd St.	2002 3rd St.
	2340 3rd St.	1616 3rd St.	1541 3rd St.	2249 3rd St.
	2600 3rd St.		2115 3rd St.	2310 3rd St. W
			2140 4th St.	2316 3rd St.
			2221 3rd St.	1655 3rd St.
				1601 3rd St.
				1855 3rd St.
				1920 3rd St.

Montana Department of Transportation

Bid Prices
Jul06-Jan07

Preliminary Estimate

Project Title:	3rd St. - Missoula (EIS)	Prepared by:	HKM Engineering Inc.
Project Number:	Alternative E	Date:	December 7, 2007
Project Length:	2,120 Meters	Location:	Missoula, MT
Des. Super. Approval:		Type of Work:	
Project Cont. Number:	3581	D.A. Approval.:	

Item Number	Quantities	Description	Unit	Average Bid Prices		Adjusted Project Unit Prices	
				Unit Prices	Amount	Unit Prices	Amount
				Dollars	Dollars	Dollars	Dollars
201310000	2	CLEARING & GRUBBING	HA	$5,000.00	$10,000.00		$10,000.00
202013000	2	REMOVE STRUCTURE	EACH	$50,000.00	$100,000.00		$100,000.00
202110000	1,175	REMOVE CONCRETE PAVEMENT	M2	$11.35	$13,336.00		$13,336.00
202120000	26,803	REMOVE BITUMINOUS PAVEMENT	M2	$2.18	$58,431.00		$58,431.00
202230000	2,516	REMOVE CURB & GUTTER	M	$57.03	$143,466.00		$143,466.00
202241000	2,436	REMOVE SIDEWALK	M2	$13.86	$33,762.00		$33,762.00
203120000	25,178	EXCAVATION-STREET	M3	$18.91	$476,116.00		$476,116.00
203300000	5,603	EMBANKMENT IN PLACE	M3	$7.18	$40,226.00		$40,226.00
301270000	18,999	CRUSHED AGGREGATE COURSE	M3	$28.14	$534,632.00		$534,632.00
301440020	41,302	COVER - TYPE 2	M2	$0.76	$31,390.00		$31,390.00
401080000	9,446	PLANT MIX BIT SURF GR S - 19 MM	MT	$24.13	$227,932.00		$227,932.00
401100000	75	DUST PALLIATIVE	MT	$155.97	$11,698.00		$11,698.00
401200000	132	HYDRATED LIME	MT	$150.72	$19,895.00		$19,895.00
402097000	510	ASPHALT CEMENT PG 70-28	MT	$481.02	$245,320.00		$245,320.00
402225000	76	EMULSIFIED ASPHALT CRS-2P	MT	$447.98	$34,046.00		$34,046.00
608100000	6,573	SIDEWALK-CONCRETE 100 MM	M2	$56.79	$373,281.00		$373,281.00
608150000	1,520	SIDEWALK-CONCRETE 150 MM	M2	$95.70	$145,464.00		$145,464.00
608290100	43	TRUNCATED DOMES	M2	$534.27	$22,856.00		$22,856.00
608500100	1,708	CONCRETE 100 MM	M2	$69.38	$118,512.00		$118,512.00
609000000	7,254	CURB & GUTTER-CONCRETE	M	$68.70	$498,350.00		$498,350.00
610300000	5,505	SODDING	M2	$10.66	$58,680.00		$58,680.00
614000000	724	RETAINING WALL	M2	$521.55	$377,357.00		$377,357.00
619690000	50	SIGN - INSTALL	EACH	$1,250.00	$62,500.00		$62,500.00
619700000	50	REMOVE SIGNS	EACH	$40.90	$2,045.00		$2,045.00
620010000	199	STRIPING-WHITE PAINT	L	$5.91	$1,176.00		$1,176.00
620045000	1,227	YELLOW CURB MARKING EPOXY	L	$69.43	$85,174.00		$85,174.00
620110000	199	STRIPING-WHITE EPOXY	L	$13.72	$2,729.00		$2,729.00
620120000	188	STRIPING-YELLOW EPOXY	L	$13.62	$2,564.00		$2,564.00
620130000	43	WORDS/SYMBOLS-WHITE EPOXY	L	$69.69	$2,997.00		$2,997.00
621421000	15	ADJUST DROP INLET	EACH	$1,400.00	$21,000.00		$21,000.00
621430000	20	ADJUST MANHOLES	EACH	$557.09	$11,142.00		$11,142.00
621440000	5	ADJUST FIRE HYDRANT	EACH	$1,550.00	$7,750.00		$7,750.00
855000100	1	LANDSCAPING	LS	$25,000.00	$25,000.00		$25,000.00
	29	Adjust Water Valve	EACH	$325.00	$9,425.00		$9,425.00
	0	5 Lane-Roundabout Intersections	EACH	$400,000.00	$0.00		$0.00
	0	3 Lane-Roundabout Intersections	EACH	$300,000.00	$0.00		$0.00
	4	Signalized Intersections	EACH	$250,000.00	$1,000,000.00		$1,000,000.00
	51	Dry Wells	EACH	$10,000.00	$510,000.00		$510,000.00
		Subtotal			$5,318,252.00		$5,318,252.00
	8%	Mobilization			$425,460.16		$425,460.16
		Subtotal			$5,743,712.16		$5,743,712.16
	25%	Contingency			$1,435,928.04		$1,435,928.04
		Subtotal			$7,179,640.20		$7,179,640.20
	3%	Inflation	Years	3.00	$665,746.50		$665,746.50
		Construction Total			$7,845,386.70		**$7,845,386.70**
	15%	**Construction Engineering**			$1,176,808.00		**$1,176,808.00**
		Total Construction			$9,022,194.70		**$8,022,194.70**
	10,640	Right-Of-Way	M2	$130.00	$1,383,200.00		$1,383,200.00
	1	Right-Of-Way (Compensation for Structures)	LS	$799,058.00	$799,058.00		$799,058.00
		Total Right of Way					**$2,182,258.00**
		Total Construction + ROW					**$11,204,452.70**

Project Length	km	2.70			
Average Project Finish Top Width	m	25.00			
Cost per Kilometer (Uses Construction Total)					$2,905,698.78
Cost per Sq. Meter (Uses Construction Total)					$116.23

RIGHT-OF-WAY IMPACTS

Alternative 1 has no impacts as a No Build Option. The impacts of the other alternatives are listed in the tables below.

Table 3. Russell Street Right-of-Way Impacts

Yellow Depicts Section 4(f) Properties

Russell Street Right of Way (All Measurements are from Back of Sidewalk)								
				Alt 2	Alt 3	Alt 4	Alt 5	Alt 5 Refined
Buildings Taken		**2003 Value**	**Owner**					
1520 Russell St.	Commercial	$303,300	Big Brothers Big Sisters	X	X		X	
1208 Mount Ave.	Commercial	$172,600	Fred Stout	X	X	X	X	X
Montana Rail Link	Commercial	$24,900	Lumber Boyce Co.	X	X	X	X	X
1501 11th St.	Residential	$103,200	Steve Morin				X	
11th Street								
1500 11th St.	Residential	$123,615	Thomas Finch				X	
1520 11th St.	Residential	$147,200	Margaret Arendt				X	
1035 Ronan St.	Commercial	$403,520	T & E Building Partnership	X	X	X	X	X
1120 Russell St.	Commercial	$336,763	Kenneth Decosta			X	X	X
1016 Kern St.	Residential	$112,700	Krista Debates			X	X	X
1012 Kern St.	Residential	$119,500	Julie Cardarelli			X	X	X
941 Kern St.	Residential	$125,200	Scott Bouma	X	X	X	X	X
935 Kern St.	Residential	$159,255	Earl Hanson	X	X	X	X	X
915 Kern St.	Residential	$127,900	Wesley Sorensen			X	X	X
1010 Russell St.	Residential	$87,200	Don Steele	X	X	X	X	X
1000 Russell St.	Residential	$155,900	Alton Helm	X	X	X	X	X
824 Russell St.	Residential	$79,600	Richard Smith	X	X	X	X	X
802 Russell St.	Residential	$79,400	Sean Kahoe			X	X	
820 Russell St.	Residential	$87,900	Alan & Gerald Preszler				X	
1509 5th St.	Residential	$95,700	Nila Sterner	X	X		X	
1501 5th St.	Residential	$129,971	Mike & Heather Nichols	X	X		X	
1445 5th St.	Residential	$127,500	Wallace & Nila Beebe	X	X	X	X	X
1439 5th St.	Residential	$130,200	Nancy McLaughlin				X	
1508 5th St.	Residential	$114,700	Michael Kruse	X	X		X	
1439 4th St.	Residential	$91,400	Constance Muller					X
1440 5th St.	Commercial	$100,825	Glenn Hensley	X	X	X	X	X
1425 5th St.	Residential	$132,600	George Koures					X
521 Russell St.	Residential	$69,000	John Wolverton			X		
501 Russell St.	Commercial	$333,000	Blown Bird Enterprises	X	X	X	X	
500 Russell St.	Commercial	$128,500	Eldon & Mary Castor	X	X	X	X	X
1431 3rd St.	Residential	$126,900	Leo Might					
3rd Street								
403 Russell St.	Commercial	$453,900	Rocky Mountain Oil Co.	X	X		X	
121 Russell St.	Commercial	$200,000	No Data	X	X			
1515 Wyoming St.	Commercial	$557,400	Norma Carey	X	X		X	
Wyoming Street								
1400 Wyoming St.	Commercial	$171,700	Pink Grizzly Greenhouse	X	X	X	X	X
1503 Russell St.	Commercial	$118,400	Hall Family Limited Partnership					X
Clark Fork Bridge								
1451 Broadway St.	Commercial	$145,940	Northwest Fuel Stystems Inc.					
1427 W. Broadway St.	Commercial	$468,980	Alex Mohan Subrayan					
1440 Broadway St.	Commercial	$175,900	Intelligent Machines Inc.	X	X	X	X	X
1500 Broadway St.	Commercial	$346,600	Arlyn F. Lemer	X	X	X	X	X
Total				$4,447,171	$4,447,171	$3,437,463	$5,615,549	$3,298,463
Total + 30%				$5,781,322	$5,781,322	$4,468,702	$7,300,214	$4,288,002

Table 4. South 3rd Street Right-of-Way Impacts

3rd St. Right of Way (All Measurements are from Back of Sidewalk)								
				Alt B/2	Alt C/3	Alt D/4	Alt E/5	
Buildings Taken	Residential/Commercial	2003 Value	Owner					
1318 3rd St.	Commercial	$245,760	Martinsen		X	X	X	
1616 3rd St.	Commercial	$350,600	T & C Lounge	X	X			
1819 3rd St.	Residential	$151,200	Delmar Hewlett			X	X	
1939 3rd St.	Residential	$164,600	Greg Hamilton	X	X			Full Take
2135 3rd St.	Residential	$217,700	Mark Denton	X	X	X	X	
2140 4th St.	Commercial	$515,500	Thomas Poindexter	X				
2204 3rd St.	Residential	$128,100	Kathryn Schilz Estate	X	X			
Total				$1,376,500	$1,106,760	$614,660	$614,660	
Total + 30%				$1,789,450	$1,438,788	$799,058	$799,058	

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Appendix C
State Historic Preservation Office Coordination

2007122104

Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

December 20, 2007

CONCUR
MONTANA SHPO
DATE 8 Jan 08 SIGNED

Josef
MDT
Russell St—
Missoula

RECEIVED
JAN 10 2008
ENVIRONMENTAL

Mark Baumler, Ph.D.
State Historic Preservation Office
1410 8th Avenue
P O Box 201202
Helena, MT 59620-1202

Subject: STPU 8105(8)
Russell Street – Missoula
Control No. 4128

Dear Mark:

The above project has undergone a series of revisions and modifications since we submitted the cultural resource report to you in 2002. We have also submitted two Determinations of Effect for which your office concurred with our findings on March 5, 2003 and November 19, 2004. Since then, however, the project design has undergone another revision to avoid impacting some of the historic properties along Russell Street. There has, consequently, been a change in the impacts to five historic properties along Russell Street between Twelfth Street South and South 3rd Street: 24MO823, 24MO814, 24MO812, 24MO811, and 24MO798.

Site 24MO823 is a residence that was constructed in the mid-1920s and is eligible for the National Register of Historic Places (NRHP) under Criteria A and C because of its association with the development of the south side neighborhood and its high degree of architectural integrity. On March 5, 2003, you concurred with our determination that the proposed project would have No Adverse Effect to the property. The roadway has been redesigned to avoid impacts to the historic residence (Attachment 1). The MDT intends to build a 3:1 slope off the back of the sidewalk and install a 10-inch retaining wall to keep the construction limits within the existing Right-of-Way (R/W). There would be no physical encroachment on the historic property or the residence. The existing landscaping would remain intact. The setting of the site has already been significantly impacted by recent commercial development on the opposite side of Russell Street. Based on the revision of the design, we now believe the proposed project would have **No Effect** to 24MO823.

Site 24MO814 is a residence constructed in 1921. It is eligible for the NRHP under Criterion A for its association with the early 20th century development of Missoula's south side neighborhoods and under Criterion C because of its high degree of architectural integrity. On March 5, 2003, your office concurred with our determination that the proposed Russell Street project would have No Adverse Effect to the historic property. Since then, however, the design for Russell Street in the vicinity of 24MO814 has been modified to avoid impacting the site. The backslopes behind the sidewalk have been increased to 3:1 thus keeping the construction limits within the existing R/W (Attachment 1). There would be no physical encroachment on the property by the proposed project. The existing landscaping would be perpetuated and there would be no changes to the historic residence. The setting of the site has already been

compromised by recent commercial and residential development in its proximity. The proposed Russell Street – Missoula project would, therefore, be **No Effect** to 24MO814.

Site 24MO812 is a residence constructed in 1956. It is eligible for the NRHP under Criteria A and C because of its association with the post-WWII development of the south side residential area and its high degree of architectural integrity. On March 5, 2003 you concurred with our determination that the proposed project would have No Adverse Effect to the historic property. The preliminary plans have been modified to install 3:1 slopes off the back of the sidewalk, which would keep the construction limits within the existing R/W (Attachment 1). There would be no physical encroachment on the historic property and the residence would not be impacted by the reconstruction of the roadway. The setting of the site has already been significantly impacted by recent commercial and residential construction in the neighborhood. Based on the existing plans, there would be **No Effect** to 24MO812.

Site 24MO811 is an historic residence that was constructed in late 1950s and is eligible for the NRHP because of its association with the post-war development of the south side area and because it is representative of post-WWII residential architecture. SHPO concurred with our Determination of No Effect for this property on November 19, 2004. Since then, however, the design of Russell Street has been modified to accommodate the construction of a roundabout at the intersection of Russell and South 5th Street. To accommodate the roundabout and avoid impacting four historic properties on the west side of Russell (24MO800, 801, 805 and 798), the alignment of Russell has been shifted to the east. Widening of the roadway has also caused some change in the alignment of the roadway. Consequently, about 59 square meters of this property would be acquired for the widening of the roadway and the roundabout (Attachment 2). That acquisition would include most of the property and the residence. The project would result in the demolition of the residence. The proposed project would have an **Adverse Effect** to 24MO811.

Site 24MO798 was constructed in the early 20th century and is eligible for the NRHP under Criteria A and C for its association with the initial development of the south side neighborhood and because it retains a high degree of architectural integrity. On March 5, 2003, you concurred with our determination that the proposed project would have No Adverse Effect to the historic property. The revised preliminary plans for this property indicated that the alignment of Russell Street would be shift to the east and away from the site (Attachment 2). Consequently, no additional R/W would be required there and the slopes would not have to be modified to keep the construction limits within the existing R/W. The roadway would be farther from the site than it is presently. Based on the preliminary plans, we have determined that the proposed project would have **No Effect** to 24MO798.

On November 19, 2004, your office concurred with our determination that the proposed Russell Street project would have an Adverse Effect to 24MO819. That determination is still valid. The MDT will begin developing a Memorandum of Agreement to mitigate the impacts to 24MO811 and 24MO819.

If you have any questions, please contact me at 444-6258.

Jon Axline

Jon Axline, Historian
Environmental Services

Attachments

cc: Dwane Kailey, P.E., Missoula District Administrator
Tim Conway, P.E., Consultant Design
Bonnie Steg, Resources Section
Craig Genzlinger, P.E., FHWA

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Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

David A. Galt, Director
Judy Martz, Governor

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ENVIRONMENTAL

CONCUR
MONTANA SHPO
DATE 19 Nov 04 SIGNED

November 4, 2004

Mark Baumler, Ph.D.
State Historic Preservation Office
1410 8th Avenue
P O Box 201202
Helena, MT 59620-1202

Josef
MDT
Russell Street
Missoula
REVISED

Subject: STPU 8105(8)
Russell Street – Missoula
Control No. 4128

Dear Mark:

On June 2, 2003, your office concurred with our determination that the above project would have an impact to six properties on Russell Street in Missoula. They are: 24MO796, 24MO800, 24MO801, 24MO805, 24MO811, 24MO819, 24MO822, and 24MO823. A Memorandum of Agreement was also developed stipulating how the MDT would mitigate the adverse effects to six properties: 24MO796, 24MO801, 24MO805, 24MO811, 24MO819, and 24MO822. That agreement was signed on July 23, 2003. Since then, however, the MDT has redesigned Russell Street in the vicinity of the effected historic sites in order to minimize or avoid impacts to them all together.

Site 24MO796 is located near the intersection of Russell Street and South 3rd Street. The MDT has proposed a roundabout to be located at the intersection. Russell Street has been redesigned to minimize impacts to National Register-eligible properties along the route. Under Preliminary Preferred Alternative (PPA), the construction limits for the intersection have been reduced in size and impacts to 24MO796 reduced. Because of the redesigned intersection, all work would be conducted within the existing R/W at 24MO796. There would be **No Effect** to 24MO796.

The alignment at the intersection of Russell Street and South 5th Street has been shifted away from 24MO800 to minimize impacts to the historic property by the proposed project. Approximately 2% of the 10245.99 square foot property would be utilized for the installation of a sidewalk along Russell Street. There would be no physical encroachment on the historic residence located on the property and the landscaping would remain largely intact. There would, therefore, be no significant change in the setting of the property and the characteristics that make it eligible for the National Register would remain intact. The proposed PPA would have **No Effect** to 24MO800.

The redesigned PPA would not result in the demolition or removal of 24MO801. The property is located at the intersection of Russell Street and South 5th Street. The redesigned roundabout proposed for that intersection means that the buildings at 24MO801 would not be located within the construction limits and would not be demolished or removed because of the project. Approximately 245 square feet of the

file: MDT/2004

southeast corner of the property would be needed to accommodate the roundabout. That constitutes about 5% of the 5,237 square foot property. There would be no physical encroachment on any of the structures on the property and the landscaping would remain mostly intact and unchanged. To minimize the impacts to the property, a retaining wall would be installed on the northeast corner of the property. Based on the redesign of the intersection, we have determined that the proposed Russell Street project would have **No Adverse Effect** to 24MO801 under the PPA.

Russell Street has been redesigned at 24MO805 under the PPA. There would be no additional R/W needed at the site and it would remain intact and unchanged. The building on the site would not be physically harmed and the existing landscaping would be perpetuated. There would, therefore, be **No Effect** to 24MO805 under the PPA for this project.

There would be **No Effect** to 24MO811 as a result of the redesigned Russell Street project under the PPA. The redesign of the project under the PPA would restrict all construction activities to the existing R/W along Russell Street. A retaining wall would be constructed along the R/W boundary to minimize the impacts to the dwelling. There would be no significant change in the setting of the site and no physical encroachment on the residence as a result of the project.

There would still be an **Adverse Effect** to 24MO819 as a result of the proposed project. The widening of Russell Street would result in the demolition or removal of the residence. There is no change in our original Determination of Adverse Effect for this property.

At 24MO822, the proposed roundabout at the intersection of Russell Street and Eleventh Street has been redesigned to reduce the impact to the historic residence. A retaining wall would be constructed at the southeast corner of the property that would minimize the impacts. The new construction limits would cause the loss of 316.56 square feet or about 5% of the total 6,405.43 square foot property. The residence would not be demolished or removed as it would have been before the redesign. Indeed, there would be no physical encroachment on the dwelling and the landscaping around it would remain intact. Consequently, there would be **No Effect** to the property under the PPA for this project.

Russell Street has been redesigned under the PPA to minimize impacts to the National Register-eligible 24MO823. The site is located at the intersection of Russell Street and Eleventh Avenue where it has been proposed to construct a roundabout. The alignment of Russell Street has been shift away from 24MO823 to accommodate widening of the street and minimize the impacts to the property. Consequently, approximately 4% of the corner of the property would be required to accommodate the reconfiguration of the

roadway and the addition of a sidewalk. The impacts to the site would be accomplished by the installation of a retaining wall adjacent to the sidewalk so a minimal amount of property would be required at the site. There would, consequently, be no physical encroachment on the two buildings located at the site and they would continue to exist intact and unchanged. There would be some change in the landscaping of the site, but it would not cause a significant change in the appearance of the site as a whole and it would also largely remain intact. Based on the redesign of the roadway under the PPA, there would be **No Effect** to 24MO823 as a result of the proposed project.

In summary, the proposed Russell Street – Missoula project would have No Effect to 24MO796, 24MO805, 24MO811, and 24MO822 under the Preliminary Preferred Alternative. There would be No Adverse Effect to 24MO801 and an Adverse Effect to 24MO819. We request your concurrence. This document supercedes the Determination of June 2, 2003. The MOA will be revised to reflect the changes in the Determination of Effect. There would be no change in the impacts to the other National Register-eligible sites within this project that have been previously evaluated.

If you have any questions, please contact me at 444-6258.

Jon Axline

Jon Axline, Historian
Environmental Services

Enclosures

cc: Loran Frazier, P.E., Missoula District Administrator
Tom Martin, P.E., Consultant Design
Bonnie Steg, Resources Section

Ym

MEMORANDUM OF AGREEMENT
STPU 8105(8)
RUSSELL STREET & SOUTH THIRD STREET - MISSOULA
MISSOULA COUNTY, MONTANA
Control No. 4128

WHEREAS the Federal Highway Administration (FHWA) proposes to assist the Montana Department of Transportation (MDT) in funding the Russell Street & South Third Street - Missoula highway reconstruction project.

WHEREAS FHWA has determined that the undertaking will have an effect on six historic properties located on Russell Street in Missoula: 24MO796, 24MO801, 24MO805, 24MO811, 24MO819, and 24MO822, properties eligible for inclusion in the National Register of Historic Places. The FHWA has consulted with the Montana State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (Council) pursuant to Section 106 of the National Historic Preservation Act (16 USC 470) and its implementing regulations, "Protection of Historic Properties" (36 CFR 800);

WHEREAS MDT participated in the consultation and have been invited to concur in this amended Memorandum of Agreement;

NOW, THEREFORE; FHWA and the Montana SHPO agree that the undertaking will be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

Stipulations

1) Conduct Historic American Building Survey (HABS)-level documentation of 24MO796, 24MO801, 24MO805, 24MO811, 24MO819, and 24MO822 prior to the initiation of construction activities on Russell Street.

2) The MDT will undertake an oral history project of the Russell Street neighborhood impacted by the proposed project. The oral history will be conducted by the MDT according to the standards developed by the Montana Historical Society. The tapes will be transcribed and housed at the Montana Historical Society with copies provided to the Mansfield Library at the University of Montana.

3) Large-format photographs will be taken of the Russell Street corridor before, during and after construction to document the impact of the project on the corridor and the historic properties located there. Copies of the photographs will be provided to the Montana SHPO and to the Missoula County Historic Preservation Office.

4) If a dispute arises regarding the implementation of Agreement, FHWA shall consult with the objecting party to resolve the dispute. If any consulting party determines

that the dispute cannot be resolved, FHWA shall request the further comments of the Advisory Council on Historic Preservation pursuant to the Council's regulations.

EXECUTION OF THIS MEMORANDUM OF AGREEMENT and implementation of its terms evidences that FHWA has afforded the Council an opportunity to comment on the Russell Street & South Third Street – Missoula highway reconstruction project and its affects on historic properties, and that FHWA has taken into account the effect of the Undertaking on historic properties.

Federal Highway Administration — Date: 7-23-2003

Montana State Historic Preservation Office — Date: 7/10/2003

Concurring Party:

Montana Department of Transportation — Date: 7-7-03

Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

David A. Galt, Director
Judy Martz, Governor

July 7, 2003

MASTER FILE COPY

Mark Baumler, Ph.D.
State Historic Preservation Office
1410 8th Avenue
P O Box 201202
Helena, MT 59620-1202

Subject: STPU 8105(8)
Russell Street & South Third Street – Missoula
Control No. 4128

Enclosed are three copies of the Memorandum of Agreement for the above project for your signature. The Advisory Council has elected not to participate in the consultation for this project (Attached). Consequently, this is a two party MOA with the MDT acting as a concurring party. Please sign each copy and return them to me for forwarding to FHWA for its signature. Once FHWA signs it, a copy will be provided to you.

If you have any questions, please contact me at 444-6258.

Jon Axline

Jon Axline, Historian
Environmental Services

Enclosures

cc: Loran Frazier, P.E., Missoula District Administrator
~~[illegible], P.E., Preconstruction Bureau~~
Gordon Stockstad, Resources Section

Date Recd Preconst 7-11-03				
Act	Info	MAIL ROUTE	Attach	Initial
	✓	30 Preconst Engr		
	✓	30 Assistant		
		30 Office Mgr		
		31 Safety Mgmt.		
		32 Road Design		
		33 Environment		
		34 Hydraulics		
		35 Survey & Mapping		
		36 Traffic Eng		
	✓	39 Consultant Dsn.		
	✓	Fiscal Program		

Copy to Consultant
8-15-03

MONTANA HISTORICAL SOCIETY
225 North Roberts ♦ P.O. Box 201201 ♦ Helena, MT 59620-1201
♦ (406) 444-2694 ♦ FAX (406) 444-2696 ♦ www.montanahistoricalsociety.org ♦

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ENVIRONMENTAL

June 2, 2003

JON AXLINE
MDT
2701 PROSPECT AVENUE
PO BOX 201001
HELENA MONTANA 59620 1001

RE: STPU 8105(8) Russell Street & South Third Street – Missoula – Control No. 4128

Dear Jon,

We have no problem with the latest alternative, which you have explained to us. We request that in the future where you have a project inside the incorporated area where there is a Certified Local Government (CLG), that you view them as an interested party for consultation.

We are ready to sign a final copy of the MOA, which you submitted on this project. Send us a copy signed by your folks and we will sign.

If you have any questions about any points that I have made, you may call me at (406) 444-0388, or email jwarhank@state.mt.us.

Sincerely,

Josef J Warhank
Review & Compliance Officer

file: MDT 2003

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Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

David A. Galt, Director
Judy Martz, Governor

CONCUR
MONTANA SHPO
DATE 12/04/03 SIGNED

November 4, 2003

Mark Baumler, Ph.D.
State Historic Preservation Office
1410 8th Avenue
P O Box 201202
Helena, MT 59620-1202

- Josef
- MDT
- Russell St - Missoula

Subject: STPU 8105(8)
Russell Street - Missoula
Control No. 4128

Dear Mark:

Enclosed are the amended site forms and the CRABS for three irrigation ditches located within the above project area. We have determined that the Miller – Kelley & Cave-Gannon Ditch (24MO225), Orchard Homes Ditch (24MO545) and the Flynn-Lowney Ditch (24MO550) are ineligible for the National Register of Historic Places for the reasons specified in the site forms. We request your concurrence.

If you have any questions, please contact me at 444-6258.

Jon Axline

Jon Axline, Historian
Environmental Services

Enclosures

cc: Loran Frazier, P.E., Missoula District Administrator
Carl Peil, P.E., Preconstruction Bureau
Jean Riley, P.E., Engineering Section
Bonnie Steg, Resources Section

File: MDT/2003

Environmental Services Unit
Phone: (406) 444-7228
Fax: (406) 444-7245

Web Page: www.mdt.state.mt.us
Road Report: (800) 226-7623
TTY: (800) 335-7592

Appendix D
Public and Agency Coordination Summary and Correspondence

Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena, MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

March 21, 2008

Donna Gaukler, Director
City of Missoula Parks and Recreation Department
435 Ryman Street
Missoula, MT 59802

Re: Section 4(f) Regulations: Significance of Kern and Hart Parks Sites

Project Name: Russell Street/South 3rd Street
Project Number: STPU-M 8105(8)
Control Number: 4128

Dear Donna:

The Montana Department of Transportation is evaluating potential environmental impacts that may be associated with the above project. With this letter we are requesting your assistance in providing public land information on the Kern and Hart Parks sites. We need your information to determine if a certain federal regulation might be applicable to this project.

The federal regulation we are specifically interested in is codified at 49 USC 303 Section 4(f) and 23 CFR 771.135 and is referred to as the Section 4(f) Regulation. Potentially applicable portions of the Section 4(f) Regulation state that the Federal Highway Administration (FHWA) can approve projects requiring the use of publicly owned land of a public park or recreation area only if there is no feasible and prudent alternative to such use and only if the project includes all possible planning to minimize harm.

The project under consideration involves reconstruction of Russell Street from Mount Avenue/South 14th Street to West Broadway Street to address current and projected safety and operational needs. The Preliminary Preferred Alternative would have four travel lanes and a center turn lane/median on Russell Street. In general, a conscious effort was made to keep construction limits to a minimum. However, in order to provide a safe roadway for the public, construction limits in certain areas must extend beyond existing right of way.

Roadway widening associated with the reconstruction of Russell Street would necessitate the acquisition of some land that is currently associated with both Hart Park and Kern Park. Those potential right-of-way takes are shown on the enclosed figure. The polygon shapes identifies the parks. The lighter shading indicates the proposed right of way needed and the darker shading is the remainder of the park.

Before the NEPA process can proceed, it must be determined if the 4(f) Regulation is applicable to the Kern Park and Hart Park sites. MDT cannot determine applicability of this regulation. "Officials having jurisdiction" must determine applicability of the 4(f) Regulation by evaluating the

Environmental Services Bureau
Phone: (406) 444-7228
Fax: (406) 444-7245

Engineering Division
TTY: (800) 335-7592
Web Page: www.mdt.mt.gov

major purposes and functions of the site and the significance of the site. For purposes of applying this regulation, the City of Missoula Parks Department should consider four criteria in your evaluation of the parks sites. Those criteria are outlined below.

First, the site must be publicly owned. Our records indicate both Kern Park and Hart Park are publicly owned and therefore, the first criterion is met. Please inform us if our understanding is incorrect.

Second, the site must be open to the public. Our understanding is that both Kern Park and Hart Park are open to the public at all times. As a result, the second criterion is met. Please inform us if our understanding is incorrect.

Third, one of the major purposes and functions of the site must be a park or recreation area. Please note that incidental, secondary, occasional or dispersed recreational activities do not constitute a major purpose.[1] Our understanding is that because of the limited size of the parks, there is inadequate room for active recreation and use of these parks is mainly passive. Further, we understand that there are no current or proposed recreational uses of the potentially impacted portions of either the Kern Park or the Hart Park. Please inform us if our understanding is incorrect.

If the third criterion is met, then the fourth criterion must be considered. For the fourth criterion to be met, each site must be a "significant property." Significance means that in comparing the availability and function of Kern Park and Hart Park with the park and recreation objectives of the community or authority, these parks play an important role in meeting those objectives. Management plans or other official forms of documentation regarding the land, if available and up-to-date, are important in this determination.[2] Our understanding is that the potentially impacted portions of Kern Park and Hart Park do not play an important role in meeting community overall recreation objectives. Please inform us if the City of Missoula determines that Kern Park and Hart Park are significant properties.

Based on our preliminary review of the impacts to these sites, it appears that Kern Park and Hart Park may not meet the criteria for Section 4(f) applicability. However, the City of Missoula Parks Department, as the officials with jurisdiction over the Kern and Hart Parks, must make that applicability determination.

If you determine that one of the primary purposes and functions of the site is not recreation and/or the site is not significant, the Section 4(f) regulations would not apply and the road reconstruction project could proceed as proposed. Please sign below if you concur. If you do not concur, please respond with a letter.

---

[1] US Department of Transportation Federal Highway Administration, Office of Planning, Environment and Realty Project Development and Environmental Review, *FHWA Section 4(f) Policy Paper*, page 11, March 1, 2005.
[2] *Ibidem*, page 12.

If you have any questions or concerns, please phone me at 406.523-5842. I will be pleased to assist you. Thank you for your assistance in this matter.

Sincerely,

Susan Kilcrease

Susan Kilcrease
Project Development Engineer
Environmental Services Bureau

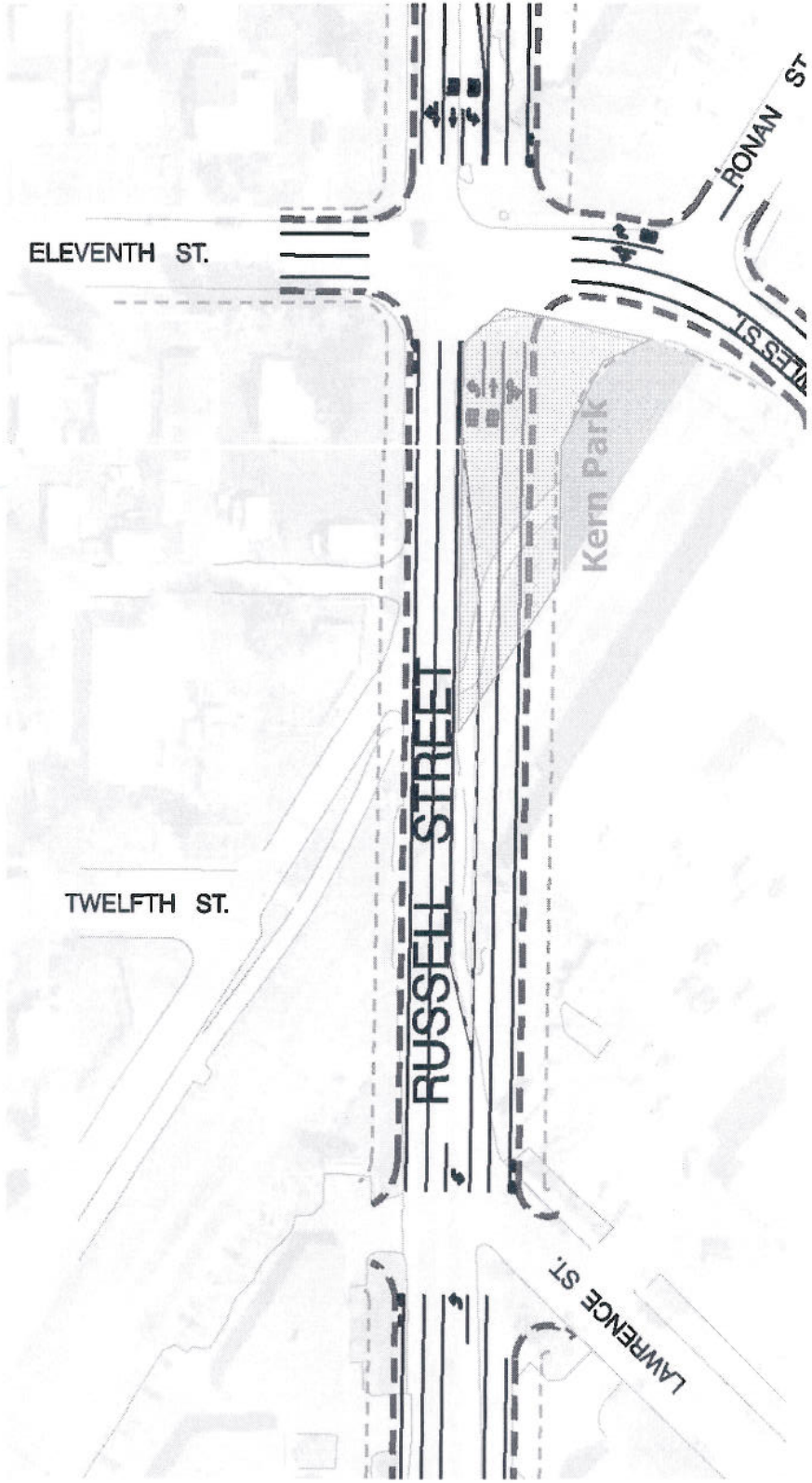
The City of Missoula Public Works Department concurs that Kern Park and Hart Park are not primarily used for park or recreation areas and are not "significant" to the City's overall recreation system.

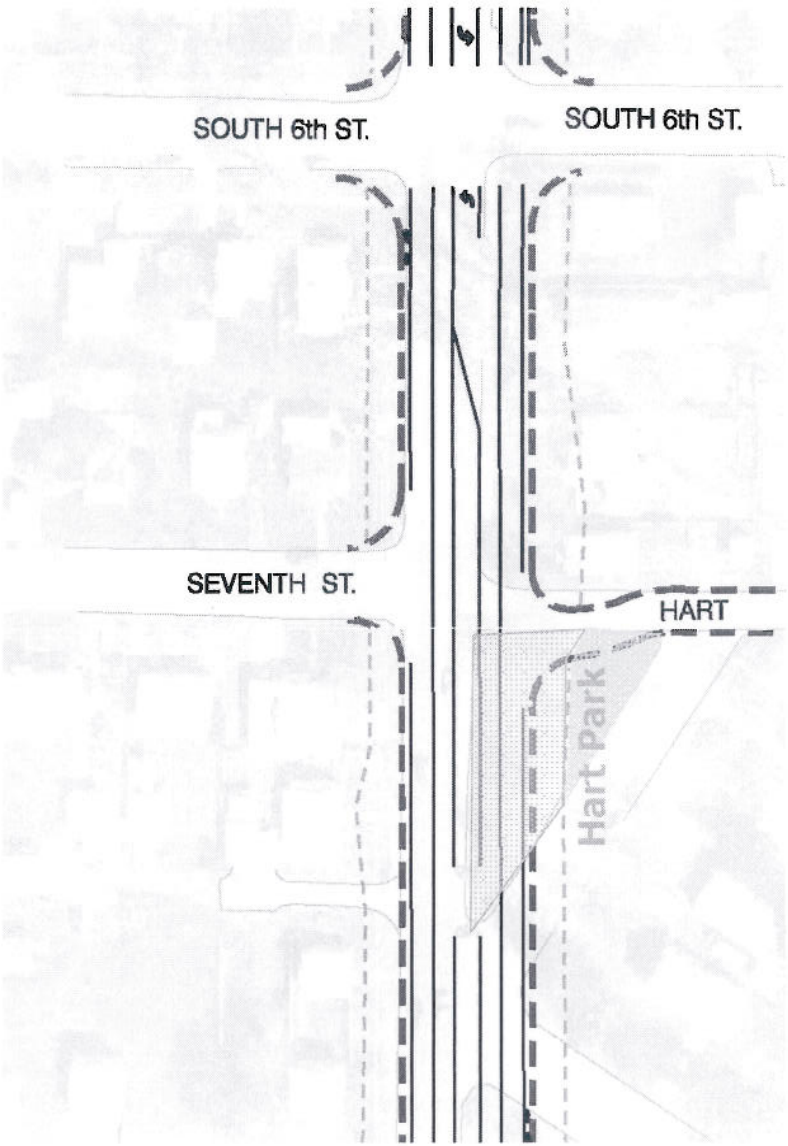
_____ _____
Name Date

_____
Title

enclosures

cc:	Tom Martin, PE	MDT Environmental Service Bureau Chief
	Dwane Kailey	MDT Missoula District Administrator
	Paul R. Ferry, PE	MDT Highways Engineer
	Tim Conway, PE	MDT Consultant Design Engineer
	Craig Genzlinger, PE	FHWA
	Gregg Wood	Missoula Department of Public Works
	Darryl L. James, AICP	HKM Engineering
	File	


RONAN ST
ELEVENTH ST.
TWELFTH ST.
RUSSELL STREET
Kern Park
LAWRENCE ST.


SOUTH 6th ST.
SOUTH 6th ST.
SEVENTH ST.
HART
Hart Park

MISSOULA
Parks & Recreation

Susan Kilcrease
MDT
P.O. Box 201001
Missoula, MT 59620-1001

April 4, 2008

RE: Section 4(f) Regulations – Kern and Hart Parks

Dear Susan,

In response to your letter dated 3/21/2008 regarding Kern and Hart Parks, I have the following comments:

1) The first three criteria under 49 USC 303.4(f) are met in regards to Kern and Hart Parks: (1) they are publicly owned; (2) they are open to the public; and (3) they are City parks. The law requires the land at issue to be either a park OR a recreation area, not both, as your analysis implies in the 3rd paragraph, page 2 of your letter. Even though this fact does not affect the ultimate outcome in this particular case, I felt it was important to clarify that fact.

2) The letter dated May 30, 2001 from Parks Director Jim Van Fossen, thoroughly describes the history and the significance of the two parks to the immediate neighborhood and thus I will not repeat that information. However, the 2001 letter does not specially answer the question of whether or not the two parks rise to the level of significance for 4(f) purposes, which as you point out in your letter, you believe they do not. After reviewing the statute and the March 2005 FHWA Section 4(f) Policy Paper, I have concluded that I agree with your analysis that the two parks do not meet the fourth criterion.

3) I believe the loss of these two parks will be felt by the neighborhood since they are located in one of the most underserved areas based upon the Master Parks & Recreation Plan inventory of population compared to developed parkland acres. Thus, I feel it is important to state that we expect to be fully compensated for the lost parkland acreage. The funds received would help us develop parks and trails in the immediate area, approximate half mile radius.

Sincerely,

Donna Gaukler, Director Missoula Parks & Recreation

CC: Gregg Wood, Missoula Public Works
Bruce Bender, Missoula CAO

serving you with pride

Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

July 29, 2008

Donna Gaukler, Director
City of Missoula Parks and Recreation Department
600 Cregg Lane
Missoula, MT 59802

Re: Section 4(f) Regulations: Significance of Hart and Kern Parks Sites

Russell Street/South 3rd Street
STPU-M 8105(8)
Control Number 4128

Dear Donna:

Thank you for your letter of April 4, 2008 and our meeting on April 25, 2008. Both helped MDT understand your department's concerns regarding Hart and Kern Parks. The additional information you provided to MDT and the consultant on future park and trail developments was also very helpful and has been incorporated in the Draft EIS.

To address your concerns the following mitigation language has been included in the Draft EIS in the parks and Recreation section.

> *Mitigation of the loss of green space will include additional landscaping and green space along Russell Street between Mount Avenue/South 14th Street and South 3rd Street. The amount of green space that will be added as a result of the proposed project will be the same or greater than the amount that would be adversely affected. The Right of Way negotiation process will allow for the monetary value of Hart and Kern Park to be directed to the City's Park Department to be used in conformance with the City's Master Parks and Recreation Plan for the Greater Missoula Area (May 2004).*

With this letter MDT requests your concurrence that Hart and Kern Parks are not significant per Section 4(f) and therefore the Section 4(f) regulations would not apply. Please sign below if you concur and return to our office.

Environmental Services Bureau
Phone: (406) 444-7228
Fax: (406) 444-7245

Engineering Division
TTY: (800) 335-7592
Web Page: www.mdt.mt.gov

If you have any questions or concerns, please phone me at 406-523-5842. I will be pleased to assist you. Thank you for your assistance in this matter.

Sincerely,

Susan Kilcrease

Susan Kilcrease
Project Development Engineer
MDT Environmental Services Bureau

Attachment:
Missoula Parks and Recreation April 4, 2008 letter to MDT

The City of Missoula Parks and Recreation Department concurs that Kern Park and Hart Park are not primarily used for park or recreation areas and are not "significant" to the City's overall recreation system.

Donna Gaukler
Name

7/30/08
Date

Parks + Recreation Director
Title

cc:
Tom Martin, PE — MDT Environmental Service Bureau Chief
Dwane Kailey — MDT Missoula District Administrator
Paul R. Ferry, PE — MDT Highways Engineer
Tim Conway, PE — MDT Consultant Design Engineer
Craig Genzlinger, PE — FHWA
Gregg Wood — Missoula Department of Public Works
Darryl L. James, AICP — HKM Engineering
File

United States Department of the Interior

FISH AND WILDLIFE SERVICE
MONTANA FIELD OFFICE
100 N. PARK, SUITE 320
HELENA, MONTANA 59601
PHONE (406) 449-5225, FAX (406) 449-5339

M.17 FHWA - Russell Street (Missoula)

August 28, 2003

Laura Jones Lofink
Herrera Environmental Consultants, Inc.
101 East Broadway
Suite 610
Missoula, Montana 59802

Dear Ms. Lofink:

This is in response to your June 3, 2003 letter regarding the Russell Street and South Third Street Reconstruction Project proposed by the Montana Department of Transportation and the Federal Highway Administration to occur within the City of Missoula in Missoula County, Montana. Your letter requested an updated list of threatened and endangered species that may occur near the proposed project area from the U.S. Fish and Wildlife Service (Service). Previously, on March 8, 2001 and on August 26, 2002, the Service has provided such lists for this project. However, because a significant amount of time has passed, you are requesting an updated list. These comments have been prepared under the authority of, and in accordance with, the provisions of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*) and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

In accordance with section 7(c) of the Act, the Service has determined that the following threatened, endangered, proposed and candidate species may be present in the vicinity of the project area.

Listed Species	Expected Occurrence
bald eagle (*Haliaeetus leucocephalus*); threatened	spring or fall migrant; winter resident
bull trout (*Salvelinus confluentus*); threatened	resident in Clark Fork River
Proposed Species or Critical Habitat	**Expected Occurrence**
bull trout critical habitat	Clark Fork River
Candidate Species	**Expected Occurrence**
yellow-billed cuckoo (*Coccyzus americanus*)	riparian areas with cottonwoods and willows

Section 7(c) of the Act requires that federal agencies proposing major construction activities complete a biological assessment to determine the effects of the proposed actions on listed and proposed species and use the biological assessment to determine whether formal consultation is required. A major construction activity is defined as "a construction project (or other undertaking having similar physical impacts) which is a major federal action significantly affecting the quality of the human environment as referred to in the National Environmental Policy Act (NEPA)" (50 CFR Part 402). If a biological assessment is not required (i.e., all other actions), the federal agency is still required to review their proposed activities to determine whether listed species may be affected. If such a determination is made, consultation with the Service is required.

For those actions wherein a biological assessment is required, the assessment should be completed within 180 days of initiation. This time frame can be extended by mutual agreement between the federal agency or its designated non-federal representative and the Service. If an assessment is not initiated within 90 days, this list of threatened and endangered (T/E) species should be verified with the Service prior to initiation of the assessment. The biological assessment may be undertaken as part of the federal agency's compliance of section 102 of NEPA and incorporated into the NEPA documents. We recommend that biological assessments include the following:

1. A description of the project.
2. A description of the specific area that may be affected by the action.
3. The current status, habitat use, and behavior of T/E species in the project area.
4. Discussion of the methods used to determine the information in Item 3.
5. An analysis of the affects of the action on listed species and proposed species and their habitats, including an analysis of any cumulative effects.
6. Coordination/mitigation measures that will reduce/eliminate adverse impacts to T/E species.
7. The expected status of T/E species in the future (short and long term) during and after project completion.
8. A determination of "is likely to adversely affect" or "is not likely to adversely affect" for listed species.
9. A determination of "is likely to jeopardize" or "is not likely to jeopardize" for proposed species.
10. Citation of literature and personal contacts used in developing the assessment.

If it is determined that a proposed program or project "is likely to adversely affect" any listed species, formal consultation should be initiated with this office. If it is concluded that the project "is not likely to adversely affect" listed species, the Service should be asked to review the assessment and concur with the determination of no adverse effect.

Pursuant to section 7(a) (4) of the Act, if it is determined that any proposed species may be jeopardized, the federal agency should initiate a conference with the Service to discuss conservation measures for those species. For more information regarding species of concern

occurring in the project areas, including proposed and candidate species, please contact the Montana Natural Heritage Program, 1515 East 6th Ave., Helena, 59601, (406) 444-3009.

A federal agency may designate a non-federal representative to conduct informal consultation or prepare biological assessments. However, the ultimate responsibility for Section 7 compliance remains with the federal agency and written notice should be provided to the Service upon such a designation. We recommend that federal agencies provide their non-federal representatives with proper guidance and oversight during preparation of biological assessments and evaluation of potential impacts to listed species.

Section 7(d) of the Act requires that the federal agency and permit/applicant shall not make any irreversible or irretrievable commitment of resources which would preclude the formulation of reasonable and prudent alternatives until consultation on listed species is completed.

Power lines in the vicinity, if not properly constructed, could pose electrocution hazards for bald eagles. To conserve eagles and other large raptors protected by federal law, we urge that any power lines that need to be modified or reconstructed as a result of these projects be raptor-proofed following the criteria and techniques similar to those outlined in the publication, "Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996." A copy may be obtained from: Jim Fitzpatrick, Treasurer, Carpenter Nature Center, 12805 St. Croix Trail South, Hastings, MN 55033. The use of such techniques would likely be most beneficial adjacent to expected raptor foraging areas (i.e., stream crossings or wetlands that support populations of waterfowl).

One of the components of the proposed project would be the replacement of the Russell Street bridge over the Clark Fork River. Bridges that do not allow for inevitable migration of the stream channel will require extensive erosion control in the foreseeable future. These increased bank stabilization activities, including riprap, have both indirect and direct cumulative impacts that significantly affect the physical, chemical and biological dynamics of the stream and its associated aquatic resources. As cumulative effects to these resources increase, the option to riprap and stabilize stream channels upstream of bridges may no longer be viable. The Service recommends that the design of stream crossings include an analysis of cumulative indirect and direct impacts including calculation of bedload dynamics and future bridge maintenance activities and the consideration of additional bridge length as a means of ameliorating these impacts.

It appears likely that the proposed construction activities may impact wetlands or other waters of the United States. If so, Corps of Engineers (Corps) Section 404 permits may eventually be required. In that event, depending on permit type and other factors, the Service may be required to review permit applications and will recommend any protection or mitigation measures to the Corps as may appear reasonable and prudent based on the information available at that time. We suggest that it would be prudent to design project components such that they impact aquatic sites to the minimum extent possible.

We apologize for the late response to your information request. The Service appreciates your efforts to consider and conserve fish and wildlife resources, including threatened and endangered species. If you have questions regarding this letter, please contact Mr. Scott Jackson, of my staff, at (406)449-5225, extension 201.

Sincerely,

R. Mark Wilson

R. Mark Wilson
Field Supervisor

From: Scott_Jackson@fws.gov [mailto:Scott_Jackson@fws.gov]
Sent: Friday, October 22, 2004 2:46 PM
To: Julie Kightlinger
Cc: Anne_Vandehey@fws.gov
Subject: Re: M.17 FHWA - Russell Street (Missoula)

Hi Julie,

Per your request, this message provides an update to the list of threatened, endangered, or candidate species that may occur within the vicinity of MDT's proposed Russell Street and South Third Street Reconstruction project in Missoula. Previous lists and updates have been provided on March 8, 2001, August 26, 2002, and August 28, 2003. The most recent list included bald eagles, bull trout, and yellow-billed cuckoo, in addition to proposed critical habitat for bull trout. The FWS recently (October 6, 2004) published the final rule designating critical habitat for bull trout in the Klamath River and Columbia River populations. No critical habitat for bull trout was designated in Montana for the Columbia River population, so bull trout critical habitat should be removed from the list for this project. Bald eagles, bull trout, and yellow-billed cuckoo should remain the listed species that may occur near this project location, primarily in association with the proposed replacement of the Clark Fork River bridge on Russell Street.

Thank you for your request. Please feel free to call me if you have questions regarding the ESA aspects of this project, or if there is any other information I can provide. Have a good weekend!

Scott Jackson, Wildlife Biologist
U.S. Fish and Wildlife Service
100 North Park Avenue, Suite 320
Helena, Montana 59601
(406)449-5225, ext. 201
scott_jackson@fws.gov

To <scott_jackson@fws.gov>
Subject: M.17 FHWA - Russell Street (Missoula)
10/19/04 04:27 PM
Mr. Jackson,

On August 28, 2003 we received an updated list of threatened and endangered species that may occur near the Russell Street and South Third Street Reconstruction Project proposed by the Montana Department of Transportation and the Federal Highway administration to occur in the City of Missoula, in Missoula County, Montana. Since time has passed since this list was request from the U.S. Fish and Wildlife Service, I am requesting a verification that no changes have occurred to the list.

Sincerely,
Julie Kightlinger
Herrera Environmental Consultants
101 E Broadway, Suite 610
Missoula, MT 59801
(406) 721-6763

Montana Fish, Wildlife & Parks

3201 Spurgin Road
Missoula, MT 59804
(406) 542-5500
Fax (406) 542-5529

Mr. Dale W. Paulson
Federal Highway Administration
2880 Skyway Drive
Helena, MT 59602

DEC 22

Dear Mr.Paulson:

This letter is in response to your request for involvement by Montana Fish, Wildlife and Parks in the EIS review on the Russell Street-South Third Street EIS. Thank you for initiating the coordination with this department, and yes we are interested in participating.

I would ask that for fisheries issues that you contact Ladd Knotek. For wildlife issues please contact John Firebaugh. Finally, for trails or recreation, the contact person will be Lee Bastian. All of the above can be contacted at the above address or phone.

Sincerely,

Mack Long
Regional Supervisor

C: file

00062-116

United States Department of the Interior

FISH AND WILDLIFE SERVICE
MONTANA FIELD OFFICE
100 N. PARK, SUITE 320
HELENA, MONTANA 59601
PHONE (406) 449-5225, FAX (406) 449-5339

M.17 FHWA Russell St. (Missoula)

January 4, 2001

Dale W. Paulson
Federal Highway Administration
Montana Division
2880 Skyway Drive
Helena, Montana 59602

Dear Mr. Paulson:

This responds to your letter dated December 6, 2000, regarding the initiation of an environmental impact statement by the Federal Highway Administration and the Montana Department of Transportation for their proposal to reconstruct portions of the Russell Street - South Third Street corridors within the City of Missoula in Missoula County, Montana. Your letter requested that the US Fish and Wildlife Service (Service) be a Cooperating Agency with regards to this project. The Service received your letter on December 20.

The Service agrees to be a Cooperating Agency for this project. As such, the Service will review and respond to documents required for compliance with the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et. seq.), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.).

If you have questions regarding this letter, please contact Mr. Scott Jackson at (406)449-5225, ext. 201.

Sincerely,

R. Mark Wilson

R. Mark Wilson
Field Supervisor

Russell Street / South 3rd Street
Advisory Council Meetings Summaries

November 29, 2000
Missoula City Council Chambers

ABSTRACT

Thirty-eight members were in attendance. During this first meeting Dick Weaver gave an overview of the project and gave an entire rough budget estimate of $12 million. Kelly Harris led a discussion on the Roles and Responsibilities of the Advisory Council. Dick Weaver then discussed membership, the decision making process, and roles of the Advisory Committee, Interdisciplinary Team, Public Works and City Council, the Federal Highway Administration, and Skillings-Connolly, Inc. Kelly Harris presented the preliminary project schedule. Purpose and Need Discussion was led by Kris Lee in order to establish criteria, look at concerns, and issues regarding the Russell Street project.

December 14, 2000
Missoula City Council Chambers

ABSTRACT

Thirty-four members were in attendance. This meeting began with a public comment forum where Kelly Harris talked about the notification and participation of the people north of 3rd. A Mr. Comstock had emailed him a note expressing his concerns on this issue. The Advisory Committee then discussed the rules for how they would function and a consensus approved of the Rules of Order. Next, Kris Lee presented an overview of the EIS procedure; during this time discussion, impactions and the advisory committee's role was laid out. The Discussion of Alternatives was developed into three sections, 3rd Street, Russell from 3rd to Broadway, and then Russell from 3rd Street South. Alignments, bike lanes, the ROW, lane configuration, and the Russell Street Bridge were all subjects during this time. The meeting ended with discussion on the Priority Matrix.

January 11, 2001
Missoula City Council Chambers

ABSTRACT

Thirty-three members of the Advisory Council were in attendance. This meeting discussed bicycle lanes, the Summary of Alternatives, Purpose and Needs Statement, Alternative Development, and a Public Involvement Section. Bicycle lanes were discussed because of a public comment which suggested total bicycle/car segregation. The Summary of Alternative talked about Russell from Broadway to 3rd and from 3rd to Mount. The Purpose and Needs Statements suggested wording: "Provide a safe and efficient transportation system while conserving of enhancing the environmental, scenic, historical, and community resources." Various changes were proposed to the statement by members of the council. Alternative Development discussed the breakdown of corridors into sections as well as lane configuration. Finally, the Public Involvement discussed the public kickoff event on February 2 and the open house on April 12.

January 18, 2001
Missoula City Council Chambers

ABSTRACT

Twenty-eight members of the Advisory Council were in attendance. Bob Giordano gave a presentation on different ways of doing bikeways with a separation with examples from Montreal and Europe. Kelly Harris then talked about Alternative Development and presented slides showing various lane configurations with specifications on lane width. Kris Lee handed out a new checklist as a draft for starting the process of looking at each alternative and

seeing if it meets the 6 Purpose and Needs Statements. Kelly Harris then gave and explanation of the completed analyses including, lane alternatives and design speed. Thad Dickson talked about Public Involvement and suggested that flyers be posted. The media had also showed interest on the project. Lastly, the schedule was firmed to have another meeting on February 1.

February 1, 2001
Council Groves Apartments

ABSTRACT

Twenty-three members of the Advisory Council were in attendance. Dick Weaver clarified that the Advisory Council is a recommending body not a decision-making body and urged members to be respectful during meetings. Changes were proposed on the Purpose and Need Statement to which a consensus for changed was achieved on only one of the 3 motions. Preliminary alternatives of 3rd and Russell Street were discussed, as wells as common features to all alternatives. It was suggested to add illumination, pedestrian crossing facilities (ADA Compliant), and landscaping. The checklist was applied to each of the alternatives to comply with the Purpose and Need Statement and the meeting was adjourned.

March 1, 2001
Missoula City Council Chambers

ABSTRACT

Thirty-four members of the Advisory Council were in attendance. A public comment was made by Jim McGrath on the Walkable Communities workshop and the actual abilities of the Advisory Council. Viable Alternatives were clarified and the features common to all alternatives were reiterated, but it was stressed that all options are still on the table and any issue can be revisited. A Traffic Engineering "Class" was then given to the members; it talked about basic concepts in traffic engineering in order to clarify questions raised about design speed. The NEPA process was discussed and it was suggested that the matrix will help to look at alternatives i.e. lane widths regarding environmental consequences.

March 8, 2001
Missoula City Council Chambers

ABSTRACT

Twenty-five members of the Advisory Council were in attendance. The first item discussed was the Alternative Matrix which will be used is the recommendation process. A presentation was given on how information was gathered in order to develop the matrix itself. Members were then asked to rank alternatives on a variety of criteria. An open discussion brought up the EIS, the Walkable Communities Workshop, and the need for something to be done on Russell. The meeting concluded with the following items being tabled: Design Speeds, Capacity, LOS, On Street Parking, Roundabouts, Decisioning tools for subcategories, and the Charrette Report.

May 10, 2001
Missoula City Council Chambers

ABSTRACT

Thirty members of the Advisory Council were in attendance. Public comments from Dave Durnford and Kate Whitlock who were both concerned about Russell losing its residential character and informed the council that people are becoming frustrated with the contradictory information they are getting from different authorities. The tabled items from the previous meeting were discussed and then the summaries from the alternative matrix were

handed out. An open comment section brought up the ideas about accessibility of meetings to public and fixed income resident relocation.

May 16, 2001
Wells Fargo Bank Conference Room

ABSTRACT

Thirty members of the Advisory Council were in attendance. The Purpose and Need was again discussed and Dick Weaver again stressed that the Advisory Council needs to give input to the process. The Summary of Impacts was discussed next and many questions arose about pedestrian safety in all alternatives offered. The Council now went on to discuss the matrix and the alternatives. In summary, most intersections approaches current operate at an acceptable LOS, but there are certain movement, generally left-hand turns from the minor street onto the major street, which to not achieve required levels. The Committee the moved for an open comment period during which time summer project involvement and pedestrian transit were again discussed, following that the meeting was adjourned.

February 20, 2002
Missoula City Council Chambers

ABSTRACT

Thirty-two members of the Advisory Council were in attendance. A public comment was made by Michael Kustudia who suggested using materials from a community workshop put on by Dan Burden. A project update stated that the Scope of Work and Cost Proposals were prepared and a notice to proceed received. Survey data, preliminary design, and Air-Noise studies were all in progress. The floor was then open for questions. A power point presentation summarizing the matrix was given by Kris Lee. From this exercise overall conclusions showed which alternatives were favored by the advisory council. Neighborhood Councils then voiced there opinions to the process. An Open Committee Discussion talked about the Walkable Communities Report, roundabouts, turn signals, EIS drafts, and design speed changes. A quick schedule overview was given and the meeting was adjourned.

October 8, 2002
Missoula City Council Chambers

ABSTRACT

Thirty-two members of the Advisory Council were in attendance. Kelly Harris updated the council on the project process at the current time. All of the EIS work is being done by Herrera Environmental. The schedule of progress was reviewed and the City of Missoula will meet on October 17, 2002 to choose their preliminary preferred alternative. The council expressed its concern for public education on roundabouts. It was again stressed that alternatives can be blended to create a desired outcome. Steve King then spoke to the Advisory Council on the trip taken by transit officials to Denver to see the implementation of roundabouts first-hand. Cost Estimates were reviewed and the meeting was adjourned.

Russell Street / South 3rd Street
Interdisciplinary Team Meetings Summaries

December 15, 2000
Missoula City Council Chambers

ABSTRACT

Twenty-three members of the ID Team were in attendance. Kelly Harris introduced the meetings purpose as looking at the roadways and talk about alternative presently posted. The team then discussed its roles and responsibilities. Purpose and Needs Discussion talked about setting boundaries for alternatives. Topics discussed were possible lane configurations and Russell Street Capacity (current and projected). Alternatives discussion also brought up lane configuration and capacity as well as pedestrian transport, bridge widening, and the EIS. Schedule was discussed and the meeting adjourned.

January 19, 2001
Missoula City Council Chambers

ABSTRACT

Twenty-three members of the ID Team were in attendance. Kris Lee first handed out the draft fo the Purpose and Need Statement that the Advisory Council agreed upon. Gerald Dorn from HNTB came in and gave a talk about bridge and flood design. Draft Alternative Development was discussed by Kelly Harris and mainly talked about lane configuration, closure notices, bridge design considerations, and design speed. Talked about schedule and adjourned.

May 2, 2001
Missoula City Council Chambers

ABSTRACT

Twenty-three members of the ID Team were in attendance. A brief update was given on the Advisory Council's decisions mainly including Purpose and Need, alternative designs, and use of the alternatives matrix. 3 alternatives were then presented to the ID team to study in depth. And Intersection traffic control –traffic signals or roundabouts- was also looked at. The team then discussed preliminary drawings of the project. The Fire Department adamantly opposed roundabouts at any location on Russell or 3rd because they are major cross-town routes. Also brought up was storm water catch basins and police concerns with roundabouts. Gerry Dorn again talked about the bridge. The EIS progress was then presented by Kris Lee, additionally the ID Team went over the Alternative Matrix. The schedule and public involvement was discussed and the meeting was adjourned.

Appendix E
De Minimis Coordination

U.S. Department
of Transportation
Federal Highway Administration

Montana Division

585 Shepard Way
Helena, MT 59601

May 7, 2008

Mark Baumler
State Historic Preservation Office
1410 8th Avenue
PO Box 201202
Helena, MT 59620-1202

In Reply Refer To:
HDA-MT

Subject: ***De minimis Finding***
Russell Street - Missoula
STPU 8105(8)
Control No. 4128

Dear Mr. Baumler:

By way of this letter, the Federal Highway Administration (FHWA) is requesting written concurrence from the Montana State Historic Preservation Office (SHPO) with the NO EFFECT determination for 24MO800 at the intersection of Russell St. and South 3rd Street, as well as for 24MO718, the Bitterroot Branch of the Northern Pacific Railroad. Enclosed for your use and information are exhibits showing the limits of the proposed new right of way and previous correspondence with your office from MDT on this project.

In addition to Section 106 of the National Historic Preservation Act (NHPA), FHWA must comply with the provisions of Section 4(f) of the 1966 Department of Transportation Act. Historically, Section 4(f) has required that prior to approval of any federally-funded highway project resulting in the "use" of listed or eligible historic properties under the NHPA; the FHWA must perform an avoidance analysis to determine whether there is a "feasible and prudent" alternative that would avoid the Section 4(f) resource.

In August of 2005, Section 138 of title 23, USC was amended under the Safe, Accountable, Flexible, and Efficient Transportation Act: A Legacy for Users (SAFETEA-LU). Section 6009 of SAFETEA-LU provided new legislative authority to address programs and projects with minor or 'de minimis' impacts on a Section 4(f) resource.

More specifically, Section 6009(b) (2) of SAFETEA-LU states:

> (2) HISTORIC SITES.--With respect to historic sites, the Secretary may make a finding of *de minimis impact* only if--
> (A) the Secretary has determined, in accordance with the consultation process required under section 106 of the National Historic Preservation Act (16 U.S.C. 470f), that--

(i) the transportation program or project will have no adverse effect on the historic site; or

(ii) there will be no historic properties affected by the transportation program or project;

(B) the finding of the Secretary has received written concurrence from the applicable State historic preservation officer or tribal historic preservation officer (and from the Advisory Council on Historic Preservation if the Council is participating in the consultation process); and

(C) the finding of the Secretary has been developed in consultation with parties consulting as part of the process referred to in subparagraph (A).

This new provision of Section 4(f) is the basis of this letter, and of the FHWA's determination of *de minimis* impacts.

De Minimis Determination

The findings of "no effect" reflect a conclusion that the uses identified in the attached exhibits will not "alter, directly or indirectly, any of the characteristics of [the] historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association."

If you concur in the determinations, FHWA intends to make a finding that impacts to historic resources that would result from implementation of the subject project would be *de minimis* for purposes of Section 4(f), as recently amended by Congress.

Request for Concurrence

The FHWA requests the written concurrence of the Montana SHPO in the above-described finding of "no effect" on historic resources from the subject project. This written concurrence will be evidence that the concurrence and consultation requirements of Section 6009 of SAFETEA-LU, as they will be codified at 23 U.S.C. § 138(b) (2) (B) & (C), and 49 U.S.C. § 303 (d) (2) (B) and (C) are satisfied. Concurrence can be provided either by signing and dating this letter or by separate letter from the Montana SHPO to the Federal Highway Administration, 585 Shepard Way, Helena, MT 59601.

Sincerely,

Kevin L. McLaury, P.E.
Division Administrator

Enclosures

cc: Tom Martin, MDT, Environmental
Susan Kilcrease, MDT, Missoula
Fred Bente, MDT, Consultant Design
Carl James, FHWA, Transportation Specialist

File: STPU 8105(8) cg/lw

CONCUR
MONTANA SHPO:

DATE 23 May 08 SIGNED

U.S. Department of Transportation
Federal Highway Administration

Montana Division

585 Shepard Way
Helena, MT 59601

May 20, 2008

In Reply Refer To:
HDA-MT

Donna Gaukler, Director
City of Missoula Parks and Recreation
435 Ryman Street
Missoula, MT 59802

RE: ***De Minimis Finding*** for:
Shady Grove Trail
Milwaukee Corridor Trail
Bitterroot Branch Trail

Project Name: Russell Street / South 3rd Street - Draft Environmental Impact Statement (DEIS)
Project Number: STPU 8105(8)
Control Number: 4128

Dear Ms. Gaukler:

This letter is a follow up to our meeting with you, the Montana Department of Transportation (MDT), and the City of Missoula Public Works staff, on April 25, 2008.

We appreciated the opportunity to visit with you about the subject project, as well as your Department's plans for enhancement of the trail systems in Missoula. As was discussed at the meeting, all three trails identified above will be provided with a grade separated crossing at the intersection with Russell Street, and will connect with existing or planned trail facilities. An additional graphic in the DEIS will show a cross section of how the under crossing structures could look to accommodate a 10-foot wide path.

The temporary uses and under crossings are necessary for the construction and maintenance of the subject project, and the trails have been determined to be public recreation area(s) and provided protection under Section 4(f) of the 1966 Department of Transportation Act.

In August of 2005, Section 138 of title 23, USC was amended under the Safe, Accountable, Flexible, and Efficient Transportation Act: A Legacy for Users (SAFETEA-LU). Section 6009 of SAFETEA-LU provided new legislative authority to address programs and projects with minor or 'de minimis' impacts on a Section 4(f) resource.

Subsection (b) (3) of said Section 6009 provides the following requirements for a de minimis finding;

(3) PARKS, RECREATION AREAS, AND WILDLIFE OR WATERFOWL REFUGES. – With respect to parks recreational areas, or wildlife or waterfowl refuges, the Secretary may make a finding of de minimis impact only if –

"(A) the Secretary has determined, after public notice and opportunity for public review and comment, that the transportation program or project will not adversely affect the activities, features, and attributes of the park, recreational area, or wildlife or waterfowl refuge eligible for protection under this section; and

"(B) the finding of the Secretary has received concurrence from the officials with jurisdiction over the park, recreation area, or wildlife or waterfowl refuge.".

Therefore, based upon the previous coordination and the requirements explained above, I am hereby requesting your concurrence in a finding of *de minimis impact* to the trail/Russell Street intersections shown on the attached exhibit.

I have enclosed a duplicate, original letter for your records. Please sign both letters and return one original in the enclosed envelope. If you have any questions, please contact Craig Genzlinger@dot.gov or call 406-449-5302, ext. 240.

Sincerely,

Kevin L. McLaury, P.E.
Division Administrator

Attachment

cc: Susan Kilcrease, MDT - Missoula
Tom Martin, MDT- Environment
Greg Wood - City of Missoula
Carl James, Transportation Specialist

File: STPU 8105(8) cg/lw

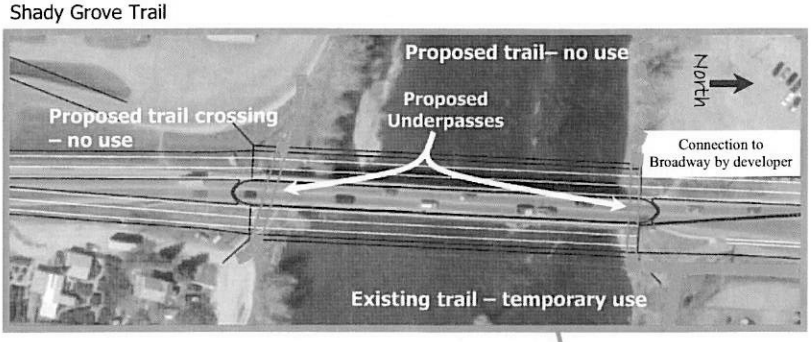
I CONCUR WITH THE DE MINIMIS FINDING AS IDENTIFIED HEREIN

Donna Gaukler, Director
City of Missoula Parks and Recreation

5/29/08
Date

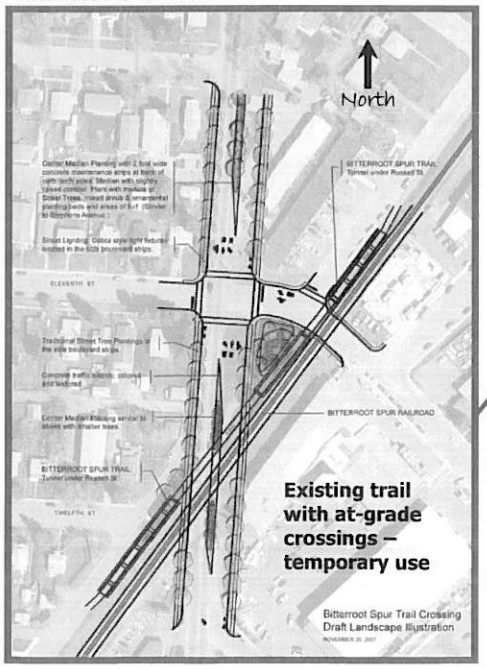
Proposed Improvements to Trail Crossings
as elements of the proposed Russell Street reconstruction project

Shady Grove Trail



Milwaukee Corridor Trail

Bitterroot Branch Trail



West Broadway Street
Clark Fork River
River Road
Idaho Street
Montana Street
Wyoming Street
Dakota Street
River Street
South 1st Street
South 2nd Street
South 3rd Street
South 4thStreet
South 5th Street
South 6th Street
South 7th Street
South 8th Street
South 9th Street
South 10th Street
South 11th Street
South 12th Street
South 13th Street
Mount Avenue / South 14th Street

Notes:
The existing Shady Grove Trail along the Clark Fork would be formally extended under the Russell Street bridge. The trail would likely continue along the riverfront, and a connection to West Broadway Street constructed by a local developer.

The Milwaukee Corridor Trail would be extended west underneath Russell Street. An extension of the trail to the west would be constructed by the City of Missoula.

The existing Bitterroot Branch Trail would be depressed int eh project are to cross underneath both Russell Street and South 11th/ Knowles Street.

Draft Environmental Impact Statement
and Section 4(f) Evaluation

Russell Street / South 3rd Street - Missoula
STPU-M 8105(8)
UPN 4128

The Montana Department of Transportation attempts to provide accommodations for any known disability that may interfere with a person participating in any service, program or activity of the Department. Alternative accessible formats of this information will be provided upon request. For further information call (406) 444-7228 or TTY (800) 335-7592.

This document may be obtained electronically from the Montana Department of Transportation website at:
www.mdt.mt.gov/pubinvolve/eis_ea.shtml

MISSOULA

Montana Department of Transportation
MDT
serving you with pride

U.S. Department of Transportation
Federal Highway Administration