

**Transportation Advisory Board**  
of the Metropolitan Council of the Twin Cities

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**ACTION TRANSMITTAL**

No. 2010-42

**DATE:** July 14, 2010  
**TO:** Transportation Advisory Board  
**FROM:** Technical Advisory Committee  
**SUBJECT:** Scope Change for Ramsey County SP#62-678-12: County Road B2 between Snelling Avenue and Prior Avenue

**MOTION:** That the TAB approve a scope change for SP#62-678-12: County Road B2 between Snelling Avenue and Prior Avenue to reconfigure the major intersections rather than expand to a six-lane facility.

**BACKGROUND AND PURPOSE OF ACTION:** The original project application was for a reconstruction of the roadway segment to six lanes. A traffic study was conducted following the award that revealed that adding turn lanes at the major intersections at Fairview Avenue, Brooks Avenue and Snelling Avenue would result in more efficient traffic operations than a six-lane facility. While the Funding & Programming Committee agreed that the change in scope would capture similar benefits as the original application, there was concern that the total project cost had increased so dramatically (due to poor cost estimating in the application and not due to the scope change). Staff evaluation revealed that the project with the revised scope and higher cost would have scored lower in the cost effectiveness criteria. The committee felt that the application may have still been selected for funding with the reduced score and are recommending approval of the scope change; however it agreed to look into improving the cost estimates for STP applications in its review for the next solicitation.

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**ROUTING**

<b>TO</b>	<b>ACTION REQUESTED</b>	<b>DATE COMPLETED</b>
TAC Funding & Programming Committee	Review & Recommend	June 17, 2010
Technical Advisory Committee	Review & Recommend	July 7, 2010
TAB Programming Committee	Review & Recommend	
Transportation Advisory Board	Review & Approve	

**Transportation Advisory Board**  
of the Metropolitan Council of the Twin Cities

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**TO:** TAC Funding and Programming Committee

**FROM:** Carl Ohrn, Metropolitan Council, James Andrew, Metropolitan Council, Kevin Roggenbuck, TAB Coordinator.

**DATE:** June 11, 2010

**RE:** Scope change and TIP amendment request from Ramsey County for SP# 62-678-12: Fairview Avenue to TH 51 (Snelling Av.) Roseville - reconstruct County Road B2 to six lane roadway including signal and turn lane improvements.

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At the May 20 TAC Funding & Programming Committee meeting, Ramsey County requested a scope change for the project listed above. The committee discussed the request but was unsure whether the revised scope project would provide the same benefits at a higher total cost than the original project. The committee voted to hold over action on the request until the June 17 meeting when staff could re-evaluate the revised scope and provide comments to the committee.

The original project was awarded funding in the 2005 regional solicitation. Staff reviewed the original project scope in the application and made a subjective review of how the project scope change might have scored in the 2005 solicitation. Attached is the staff's review plus information from the 2005 application for comparison.

Currently, the region does not have an established standard to determine whether a project scope change still provides the benefits that warranted selection in the regional solicitation. Staff has done cursory reviews of proposed scope changes and provided opinions to the TAC F&PC, but largely, the committee discusses the pros and cons at the meeting without much supporting information in front of them and makes a recommendation.

Staff asks that the committee consider recommending adoption of a scope change review process to the TAB. This would give the project sponsors better direction as to the information they should provide in their request, it gives staff a process to follow when evaluating the revised scope request and the committee can feel more confident in their recommendation. Perhaps the staff review of this scope change request can be a starting point for a more established review process.

The adoption of a scope change review process should be taken up for discussion at a future meeting.

# Ramsey County B2 project scope change

## Staff review June 17, 2010

### Original project scope.

The Ramsey County B2 project was submitted in the 2005 regional solicitation in the "A" Minor Augmenter category. The original project included reconstruction of 0.5 miles of County Road B2 between Fairview Avenue and Snelling Avenue from a four-lane to a six-lane road with signal and turn lane modifications. Attached are the cover page, project description and project location map from the 2005 application. The project description and the crash analysis worksheet do not specifically identify the intersection improvements and crash diagrams were not included. Attachment I, calculation of improved volume/capacity ratio, lists the addition of one through lane and one left turn lane on eastbound B2 at the southbound Snelling Avenue ramps.

### Revised project scope.

Ramsey County has requested a scope change and TIP amendment to:

- add left turn lanes on all four approaches at the Co Rd B2 and Fairview Ave. intersection,
- add a westbound right turn lane at Brooks Ave. and Fairview Ave.,
- add a second westbound left turn lane and lengthen the eastbound left turn lane on Co Rd B2 at the TH 51 (Snelling) ramp intersection, and
- mill and overlay approximately 900 feet of roadway from the north end of the Fairview Ave. construction to the south end of the TH 51 (Snelling Ave.) construction.

### Extent of the staff review.

Projects awarded federal funds through the regional solicitation must meet certain eligibility criteria. Staff reviewed the project scope change against the STP "A" Minor Augmenter eligibility in the 2005 regional solicitation.

Project scope changes should provide about the same benefits in the same location as the original project scope. Staff will review the project scope change, estimate whether the scope change would have affected the criterion scores. The committee then decides whether the project scope change would have scored high enough to still be selected by the TAB and awarded federal funds.

### Other conditions.

Federal funds awarded to a project may be reduced if the projects scope change reduces the project construction limits or eliminates any other construction elements from the original project scope. Any savings in federal funds resulting from the project scope change will be returned to the region and re-allocated in the next scheduled regional solicitation. The federal funds awarded to projects in the regional solicitation are capped, so cost increases will be borne by the project sponsor. Federal funds cannot be transferred to another project, programmed or not programmed, be it the same projects sponsor or not.

### Qualifying Criterion #2: The project must be on an "A" Minor Arterial adopted by TAB.

The revised scope proposed by Ramsey County includes adding a westbound right turn lane at the Brooks Avenue intersection with Fairview Avenue. Fairview Ave. is a "B" Minor Arterial and Brooks Avenue is a local street. The solicitation criteria allow some work to be done off the "A" Minor system, such as lane tapers on intersecting roads, but this part of the project scope change involves two non-eligible roads about 500 feet from Co Rd B2.

### Project benefits must be comparable to the original project.

The project received 708 points of a possible 1,200 and ranked fourth out of six "A" Minor Arterial Augmenter projects scored. The project scored 128 points less than the third ranked project and three points more than the fifth ranked project. Attached is a spreadsheet showing the final scores of each criterion for the 2005 Augmenter projects. The region awarded funds to four Augmenter projects. (The second ranked Augmenter project was not funded because it was on the same route as the top ranked project, and the region's policy is to fund only one project per route.)

Staff reviewed the project scope change against the 2005 STP Augmenter criteria. Below is a brief description of each criterion, the original project score compared to the maximum points available and staff comments and observations of each criterion.

Criterion A1: Importance of the Augmenter route. 135/150 pts

The applicants defines an Augmenter route that is longer than the project and provides traffic data, transit ridership numbers and the last year it was reconstructed.

- The project scope change is in the same location as the original projects, so it has the same Augmenter route.

Criterion B1: Crash reduction. 54/100 pts

The benefit is calculated by applying two crash reduction factors in the proposed project to the last three years of crash data to see which ones could have been prevented.

- Hard to say if the project scope change provides the same crash reduction because the original application did not include the crash diagrams showing where the accidents were and how the project would prevent them. The crash reduction worksheet used “add lane” as an improvement, so it’s unclear whether adding turn lanes at Co Rd B2 and Fairview would provide more or less crash reduction benefit than adding an additional through lane.

Criterion B2: Access management. 70/125 pts

The project is scored based on how well it already meets state and local access management guidelines or how it will correct accesses that are not consistent with the state or local access management guidelines.

- The original project did not change access to Co Rd B2, neither does the project scope change, so the scores would likely be the same.

Criterion B3: Air Quality. 70/100 pts

The benefit is calculated by multiplying VMT by an emission rate based on a calculated average speed.

- The project scope change probably provides about the same air quality benefit. The original project had additional through capacity that reduces delay and increases travel speed, which provides the AQ benefit. The project scope change has more turn lanes that also increase travel speeds.

Criterion B4: Congestion reduction. 10/50 pts

The benefit is calculated by measuring the before and after volume/capacity ratios.

- The project scope change would probably provide the same congestion reduction benefit. The STP application showed the addition of through lanes would reduce the volume/capacity ration from 0.49 to 0.32. The project scope change will add left turn capacity at Fairview and Co Rd B2. The original project also included a double left turn lane at Snelling.

Criterion C1: Cost effectiveness of the crash reduction. 102/125 pts

Divide the total project cost by the crash reduction calculated in B1.

- The cost effectiveness of the project scope change is likely to be less than the original project because it is almost twice as costly. Assuming the benefits are the same, the cost per crash reduced would be about double and the project scope change would have received about 60 points.

Criterion C2: Cost effectiveness of the air quality improvement. 65/75 pts

Divide the total project cost by the air quality benefit calculated in B3.

- If the project scope change provides slightly less air quality benefit at almost double the original project cost, the cost per kilogram of emissions reduced would be about double. The project scope change would have received about 40 points.

Criterion C3: Cost effectiveness of the congestion reduction. 65/75 pts

Divide the total project cost by the increase in hourly person throughput calculated in B4.

- The cost effectiveness of the project scope change is likely to be less than the original project because it is almost twice as costly. Assuming the congestion reduction benefits are the same, the cost in person throughput would be about double and the project scope change would have received about 40 points.

Criterion D1: Development Framework implementation. 90/200 pts

The project is scored based on how it might influence development in four areas: 1) intensify development; 2) improving transportation linkages between job centers, housing, etc... 3) contributing toward brownfield cleanup; and 4) supports life cycle housing.

- The projects are scored largely on their location. No change in score is likely.

Criterion D2: Integration of modes. 0/100 pts

The project is scored based on whether it includes bike, pedestrian or transit elements.

- The project scope change does not include intermodal elements. No change in score.

Criterion E1: Maturity of project concept. 47/100 pts

The project is scored based on how much preliminary work has been done and showed in the project development schedule.

- I don't know if we can re-evaluate this criterion. Staff could not compare the anticipated project development schedule from the original projects to the project scope change.

Summary.

The Brooks Ave. /Fairview Ave. intersection improvement is about 500 feet off the "A" minor system. The total cost of the project scope change is nearly double the original project scope, so the project would have scored about 90 points less in the cost effectiveness criteria.

## Federal STP Funding Application

**INSTRUCTIONS:** Complete and return to Kevin Roggenbuck, Transportation Coordinator, Transportation Advisory Board, Mears Park Centre, 230 E. Fifth Street, St. Paul, Minnesota 55101. (651) 602-1728. Applications must be received by 5:00 PM or postmarked on July 29, 2005. \*Be sure to complete and attach the Project Information form.

Office Use Only

AA-05-03

### I. GENERAL INFORMATION

RECEIVED

AUG 19 2005

TRANSPORTATION

1. APPLICANT Ramsey County Public Works

2. JURISDICTIONAL AGENCY (IF DIFFERENT)

3. MAILING ADDRESS 1425 Paul Kirkwold Drive

CITY Arden Hills

STATE MN

ZIP CODE 55112

4. COUNTY Ramsey

5. CONTACT PERSON

Dan Soler

TITLE Ramsey County  
Traffic Engineer

PHONE NO.  
(651) 266-7114

CONTACT E-MAIL ADDRESS: Dan.Soler@co.ramsey.mn.us

### II. PROJECT INFORMATION

6. PROJECT NAME County Road B2--Reconstruction between Fairview Avenue and TH 51 (Snelling Avenue)

7. BRIEF PROJECT DESCRIPTION (Include location, road name, type of improvement, etc... A more complete description must be submitted separately as described in Specific Requirement #3 on p. 5) The project includes the reconstruction of 0.5 miles of County Road B2 between Fairview Avenue and TH 51 (Snelling Avenue) with impact to Mn/DOT right of way at the County Road B2 and TH 51 west ramps. The project will reconstruct County Road B2 from a four-lane to a six-lane facility and include signal and turn lane modification.

8. TRANSPORTATION INVESTMENT PLANNED ECONOMIC DEVELOPMENT DISTRICTS (TIPEDD)

Check here, if project is being submitted as part of a TIPED District. If it is, the applicant must also submit the TIPEDD application form (found on p. 10) and list this project on that form.

9. STP PROJECT CATEGORY - Check only one project grouping in which you wish your project to be scored.

"A" Minor Arterials:

Reliever

Connector

Expander

Augmenter

Non-Fwy. Principal Arterial

Bikeway/Walkway

### III. PROJECT FUNDING

10. Are you applying or have you applied for funds from another source(s) to implement this project? Yes \_\_\_ No X  
If yes, please identify the source(s):

11. FEDERAL AMOUNT \$ 2,280,000

14. MATCH % OF PROJECT TOTAL 20%

12. MATCH AMOUNT \$ 570,000

15. SOURCE OF MATCH FUNDS Ramsey County

13. PROJECT TOTAL \$ 2,850,000

16. REQUESTED PROGRAM YEAR (CIRCLE) 2009 2010

17. SIGNATURE



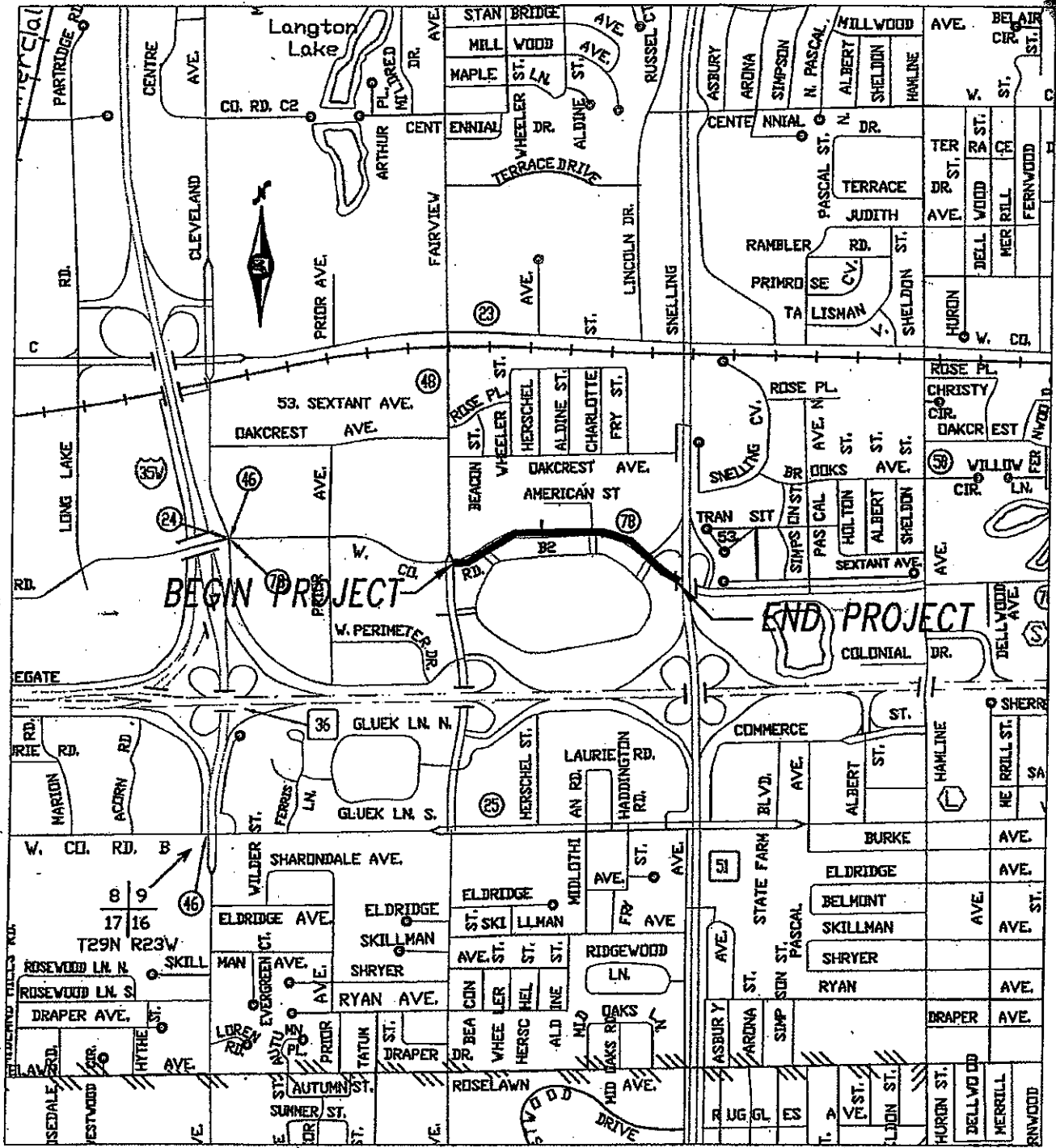
18. TITLE

PUBLIC WORKS DIR / COUNTY ENG.

## **PROJECT OVERVIEW**

The proposed project is being submitted for federal funding under the Surface Transportation Program (STP) in the "A" Minor Arterial – Augmenter category. The project includes reconstruction of 0.5 miles of County Road B2 between Fairview Avenue and TH 51 (Snelling Avenue) with impact to Mn/DOT right of way at the County Road B2 and TH51 west ramps. The project will reconstruct County Road B2 from a four-lane to a six-lane facility and include signal and turn lane modifications.

The project will provide additional through lane capacity that is needed through this heavily traveled portion of County Road B2 and improve existing and future traffic volumes. Turn lane and signal modifications will improve traffic flow and safety. The project is an important section of the City Roseville bus way transit corridor and acting commuter link to the Rosedale Mall shopping center.



RAMSEY COUNTY  
 Department of Public Works

PROJECT LOCATION MAP  
 CO RD B2  
 FAIRVIEW AVE TO SNELLING AVE

FIGURE 1



"A" Minor Arterial Augmenter - Prioritizing Criteria Scores 2005

project no.	applicant	project name	federal \$	match \$	prioritizing criteria										Total Points		
					A.1 0-150	B.1 0-100	B.2 0-125	B.3 0-100	B.4 0-50	C.1 0-125	C.2 0-75	C.3 0-75	D.1 0-200	D.2 0-100		E.1 0-100	TIPED Bonus
AA-05-01	Hennepin County	CSAH 81/0118 (County 81) - Reconstruct CSAH 81 from North of TH 100 to North of CSAH 10 - 1.41 miles of new 6-lane, 10-ton, urban, divided roadway. Will support a proposed Minneapolis to Rogers Bus Rapid Transit (BRT) line in mixed use lanes. The intersection at CSAH 10 (Bass Lake Road) will be expanded. Add a pedestrian and bike path on one side.	\$5,500,000	\$2,500,000	130	100	125	100	50	78	75	25	200	100	53		1037
AA-05-02	Hennepin County	CSAH 81/0119 (County 81) - Reconstruct CSAH 81 from North of CSAH 10 to North of 63rd Avenue. - Reconstructs 1.17 miles of new 6-lane, 10-ton, urban, divided roadway. Will support a proposed Minneapolis to Rogers Bus Rapid Transit (BRT) line in mixed use lanes. The intersection at 63rd Avenue will be expanded. Integrate with a park and ride facility at the northwest corner of 63rd Avenue and CSAH 81. The project will utilize the frontage road / connecting streets for pedestrian and bicycle accommodation.	\$5,500,000	\$1,500,000	120	47	125	80	45	21	55	43	200	50	53		839
AA-05-07	City of Minneapolis	Cedar, Franklin and Minnehaha Avenue Intersection: Safety and Capacity Improvement Project - Reconstruct several intersections and connect street segments to the portion of Cedar Avenue located between I-94 and TH 55 (Hiawatha Avenue) in south Minneapolis. Improve multimodal transportation safety and capacity, reduce pedestrian and vehicular conflicts, improve access to transit services, reduce barriers to development, and improve access management to adjacent land uses and major development sites along this segment of Cedar Avenue.	\$844,800	\$211,200	130	14	105	60	5	85	60	62	185	0	80	50	836
AA-05-03	Ramsey County	County Road B2 - Reconstruction between Fairview Avenue and TH 51 (Shelling Avenue) - (0.5 miles) build a six-lane facility, include signal and turn lane modifications.	\$2,280,000	\$570,000	135	54	70	70	10	102	65	65	90	0	47		708
AA-05-04	Minnesota Department of Transportation	TH 120 Mill & Overlay and Frontage Road Realignment - Add an auxiliary lane and realign the Frontage Road (Hudson Road) via a new Frontage Road section (Maplewood and Oakdale in Ramsey and Washington counties.)	\$976,000	\$244,000	135	45	80	0	35	125	0	75	90	20	100		705
AA-05-05	City of Minneapolis	Hennepin - Lyndale Reconstruction - Includes Lyndale Avenue from Dunwoody Blvd. to Groveland Terr and Hennepin Avenue from Groveland Terr to Franklin Avenue. The total length is approximately .75 miles. Reconstruction including grading, paving, striping, signals, lighting and storm drain.	\$3,920,000	\$3,900,000	135	8	95	0	0	0	0	0	156	70	53		516
AA-05-05	City of St. Paul	Pierce Butler Route Extension Phase 1 - On a new alignment from Groffo Street (west of Dale) to Arundel Street at Minnehaha Avenue (one block west of Western Avenue) about 4,000 feet long.	\$0	\$0													0
		TOTAL FEDERAL FUNDS	\$19,020,800	\$3,855,200													
			\$11,844,800														

Disqualified



**Department of Public Works**

Kenneth G. Haider, P.E., Director and County Engineer

1425 Paul Kirkwold Drive

Arden Hills, MN 55112-3933 • (651) 266-7100 • Fax (651) 266-7110

E-mail: Public.Works@co.ramsey.mn.us

April 27, 2010

Karl Keel, P.E.  
Chair, TAB Funding and Programming Committee  
Metropolitan Council  
390 Robert St. N.  
St. Paul, MN 55101-1805

**SP 62-678-12, COUNTY ROAD B2 (CSAH 78) BETWEEN PRIOR AVENUE AND SNELLING AVENUE (TH 51)- SCOPE CHANGE REQUEST**

Dear Mr. Keel:

Ramsey County respectfully requests that the Funding and Programming Committee consider a scope change request for the above referenced project at its May 20, 2010 meeting.

The project was originally submitted as a request for funding to expand County Road B2 (CSAH 78) from four to six through lanes. However, prior to starting the design of the project, Ramsey County contracted with SEH, Inc. to perform a traffic study to determine the optimum lane configuration for the road segment. This study concluded that reconfiguring the major intersections properly yielded more efficient traffic operations than the six-lane expansion. Furthermore, the six-lane configuration, coupled with the close intersection spacing that exists along the corridor, raised concerns about vehicles weaving across the proposed three through lanes. Based on the results of the traffic study, expansion of the through lanes was rejected.

While the decision not to add through lanes was determined by the traffic study, right of way impacts to the Rosedale shopping center and the neighboring retail sites associated with the six-lane configuration were considered unacceptable and an impediment to expansion.

We now propose to limit the road reconstruction work to the following areas:

- **Fairview Avenue (CSAH 48) Intersection-** Add a left-turn lane to each approach so that all will have dual left-turn lanes. Add right-turn lanes at the southbound and eastbound approaches.
- **Brooks Avenue Intersection-** Add a westbound right-turn lane.
- **Snelling Avenue (TH 51) Southbound Ramp Intersection-** Add a second westbound left-turn lane and lengthen the eastbound left-turn lane.

On the remainder of the project, an approximately 900-foot long segment of the corridor from the north end of the Fairview Avenue reconstruction to the south end of the Snelling Avenue reconstruction, the existing pavement would be milled to a depth of three inches and repaved.

Traffic signal interconnection would be upgraded and obsolete traffic signal controllers and cabinets would be replaced at the five signalized intersections within the project termini. Audible Pedestrian Signals (APS) would be added to all traffic signals to enhance safety for blind or vision-impaired pedestrians. Pedestrian curb ramps at all intersections would be reconstructed to meet Americans with Disabilities Act (ADA) standards and durable pavement markings and upgraded signs would be installed along the corridor.

Location maps and drawings showing the preliminary design are attached. Also included is a comparison of the originally estimated cost of the six-lane expansion, the current estimate of a six-lane project, and the current estimate for the work now proposed. Because the estimated cost of the re-scoped project is more than the originally estimated project cost, we request approval of this scope change with no adjustment to the federal funding level of the project of \$2,394,000. This amount represents 48% of the estimated construction cost of \$4,945,730.

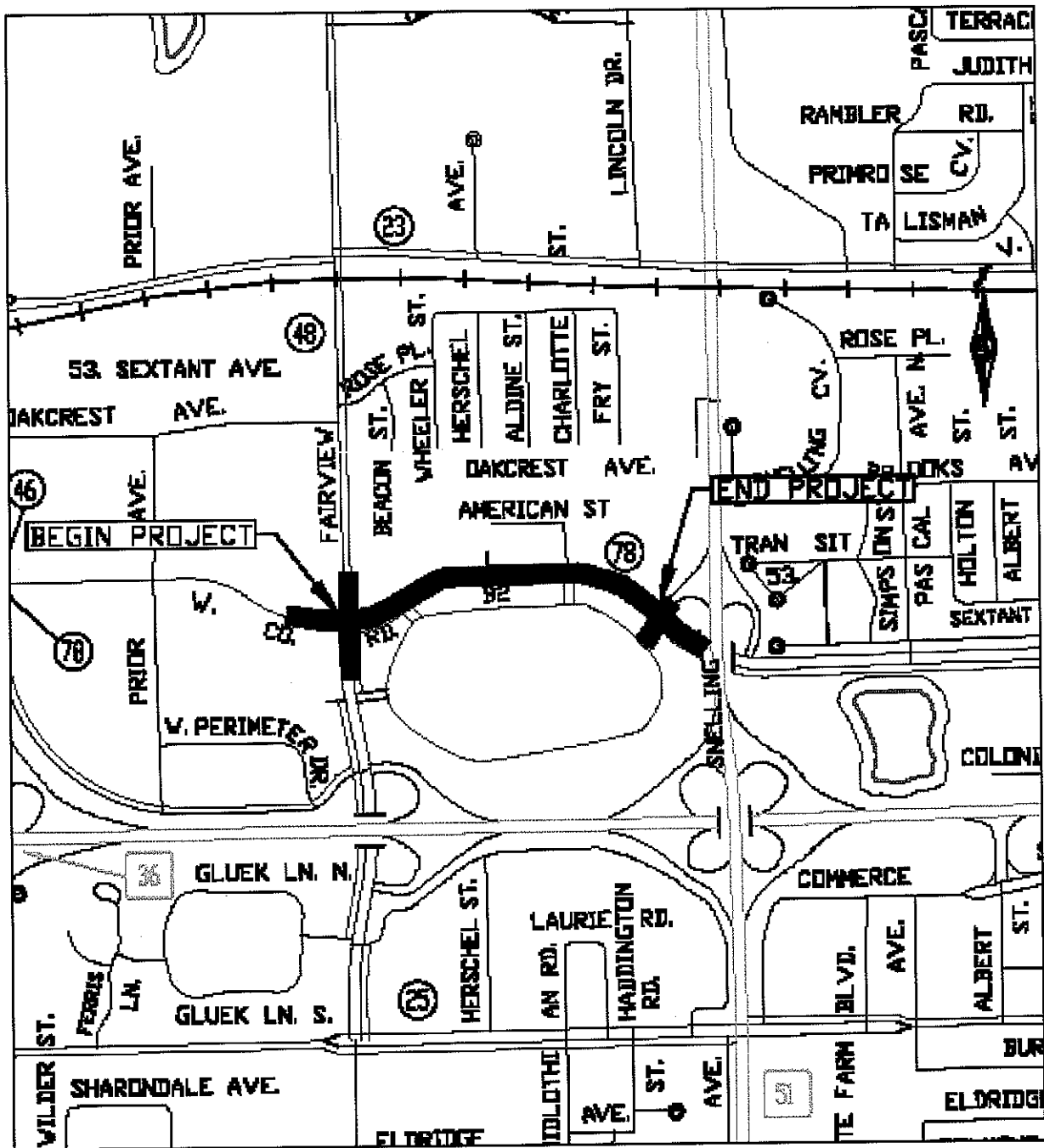
If additional information is needed, or if there are questions regarding the project or this request, please contact the project manager, Erin Laberee, at 651-266-7105, or by e-mail at [erin.laberee@co.ramsey.mn.us](mailto:erin.laberee@co.ramsey.mn.us).

Sincerely,

Kenneth G. Haider, P.E.  
Director/County Engineer

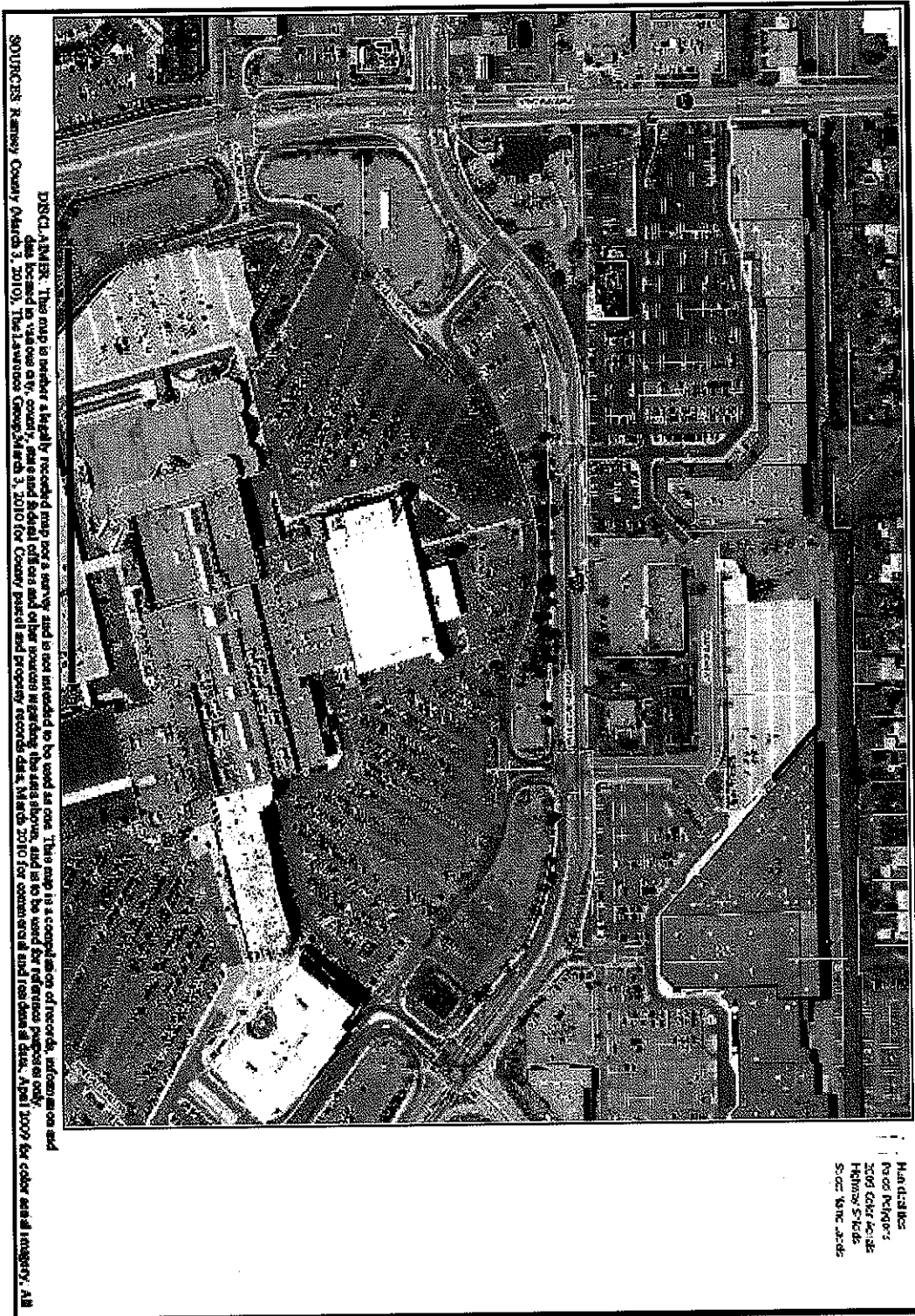
Attachments

C: James Andrew, Transportation Planner, Met Council  
Colleen VanWagner, MN/DOT State Aid  
Michelle Moser, MN/DOT State Aid

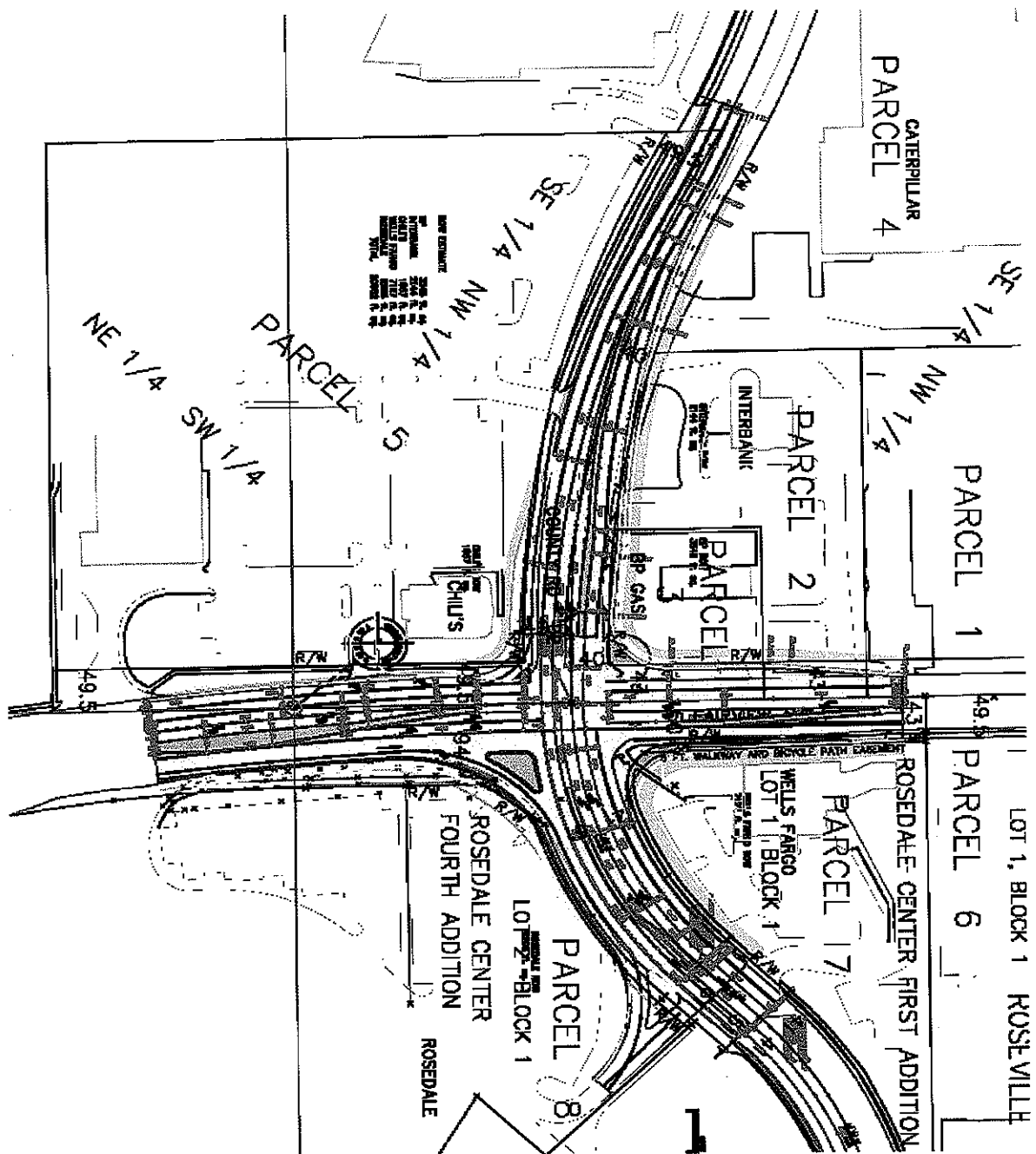


**RAMSEY COUNTY**  
 Department of Public Works

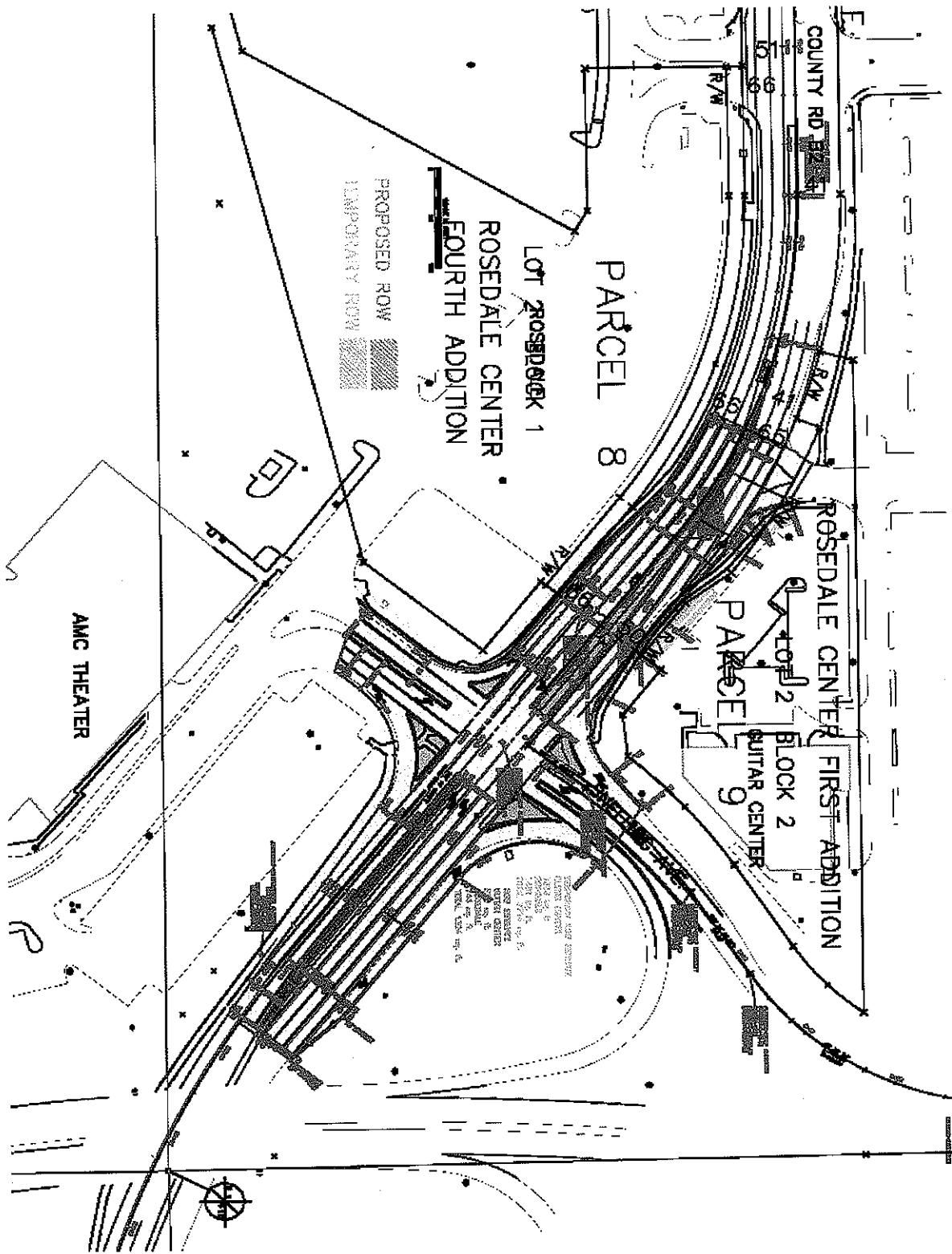
**PROJECT LOCATION MAP**  
 COUNTY ROAD B2 between  
 FAIRVIEW AVE. & SNELLING AVE.



SP 62-678-12 Aerial Photo



Preliminary Layout- County Road B2 / Fairview Avenue



Preliminary Layout- County Road B2 / Snelling Avenue SB Ramp

## SP 62-678-12 Cost Comparison

### Original Six-Lane Estimate, from STP Application (2009 Construction):

Total Construction Cost-	\$2,850,000	100%
Federal STP Funds-	\$2,280,000	80%
Local Funds-	\$ 570,000	20%

### 2010 Revised Six-Lane Estimate (2012 Construction):

Total Construction Cost-	\$8,217,165	100%
Federal STP Funds-	\$2,394,000	29%
Local Funds-	\$5,823,165	71%

### Four-Lane with Intersection Improvements (2012 Construction):

Total Construction Cost-	\$4,945,730	100%
Federal STP Funds	\$2,394,000	48%
Local Funds-	\$ 2,551,730	52%