

Appendix D: Scoping Decision Resolutions

- Bottineau Transitway Policy Advisory Committee
- Hennepin County Regional Railroad Authority
- Bottineau Transitway Community Advisory Committee (CAC) Scoping Input to the Policy Advisory Committee (PAC) and the Advise, Review and Communicate Committee (ARCC)
- Advise, Review and Communicate Committee (ARCC) Input to the Policy Advisory Committee (PAC)

Bottineau Transitway Policy Advisory Committee

04.23.2012

**RESOLUTION TRANSMITTING THE POLICY ADVISORY COMMITTEE'S
RECOMMENDATION TO THE HENNEPIN COUNTY REGIONAL RAILROAD AUTHORITY
(HCRRA) REGARDING THE ALTERNATIVES TO BE CARRIED FORWARD FOR
FURTHER STUDY IN THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DRAFT
EIS)**

WHEREAS, the Bottineau Transitway is a proposed project that will provide for transit improvements in the heavily traveled northwest area of the Twin Cities, and;

WHEREAS, the Bottineau Transitway is located in Hennepin County, Minnesota, extending approximately 13 miles from downtown Minneapolis to the northwest through north Minneapolis and the suburbs of Golden Valley, Robbinsdale, Crystal, New Hope, Brooklyn Park, Maple Grove, and Osseo, and;

WHEREAS, the Federal Transit Administration (FTA), the Hennepin County Regional Railroad Authority (HCRRA) and the Metropolitan Council have initiated the environmental review process for the Bottineau Transitway project, and;

WHEREAS, federal funding will be pursued for this project from the FTA, which has consequently been designated as the lead federal agency for this project, required to undertake environmental review in compliance with the National Environmental Policy Act (NEPA), and;

WHEREAS, the Bottineau Transitway project must also comply with the requirements of the Minnesota Environmental Policy Act (MEPA), and;

WHEREAS, HCRRA is the project proposer and designated Responsible Governmental Unit (RGU) for the Draft EIS under the state environmental review requirements, and;

WHEREAS, the Notice of Intent (NOI) for preparation of the Bottineau Transitway EIS was published in the Federal Register on January 10, 2012, and;

WHEREAS, HCRRA, in cooperation with the Metropolitan Council, published a notice of availability of the Bottineau Transitway Scoping Booklet in the Minnesota Environmental Quality Board Monitor on December 26, 2011, and;

WHEREAS, HCRRA in cooperation with the Metropolitan Council distributed the Scoping Booklet to the Minnesota EQB distribution list and other project stakeholders in December 2011, and held an Interagency Scoping meeting on January 19, and four public scoping meetings on January 23, 24, 25 and 31, 2012, and;

WHEREAS, the Scoping comment period for the Bottineau Transitway began on December 27, 2011 and ended February 17, 2012, and;

WHEREAS, approximately 380 people attended the four open house meetings held during the Scoping process, and;

WHEREAS, a total of 295 comments were received during the Scoping process, both in written format and through oral testimony recorded by a reporter at the open house meetings and;

WHEREAS, the Scoping process is used to confirm the purpose and need for the project, identify appropriate alternatives that could address project needs, focus on potentially significant issues that should be studied in the Draft EIS, and eliminate issues that are not significant and/or have been addressed by prior studies, and;

WHEREAS, HCRRA in consultation with the FTA, Metropolitan Council, the Advise Review and Communicate Committee (ARCC), and the Community Advisory Committee (CAC) has reviewed and considered the technical analysis conducted during the Scoping process as well as the comments received on the project during Scoping, and;

WHEREAS, the Scoping Decision Document will define why transit improvements should be studied and what the proposed improvements should accomplish, define the alternatives that will be further studied in the Draft EIS, define the issue areas that will be addressed in the evaluation, and establish the methods that will be used to analyze potential impacts and benefits, and;

WHEREAS, the alternatives evaluation process has appropriately used the project purpose and need statement, defined project goals and objectives, and identified suitable evaluating criteria, which will provide the foundation for decision making, and;

WHEREAS, the ARCC along with the CAC have provided both technical and community input into the Scoping Decision, and;

WHEREAS, the resolution from the Bottineau Transitway PAC will serve as the advisory document to HCRRA, the designated project proposer and RGU under the state environmental review process, regarding the Scoping Decision;

NOW THEREFORE BE IT RESOLVED that the Bus Rapid Transit (BRT) Alternative, as defined in the Scoping Booklet (B-C-D1) is screened from further evaluation in the Draft EIS based on the following:

- **Goal 1: Enhance Regional Access to Activity Centers**
 - Forecast total ridership for BRT is 19,900 compared to 27,000 for LRT.
 - Connections from BRT to other transit modes/facilities are less convenient than LRT.
 - BRT would not have the capacity to handle event crowds like LRT.
- **Goal 2: Enhance the Effectiveness of Transit Service within the Corridor**
 - BRT (5,650) generates approximately 1,500 fewer net new daily transit riders than LRT (7,150)
 - BRT generates less than half (71) as many passengers per revenue hour than LRT (181)
 - Based on travel time and average speed, LRT (8,520) provides higher level of daily hours of user benefits compared to BRT (5,880)
- **Goal 3: Provide a Cost Effective and Financially Feasible Transit System**

- LRT provides relatively greater connectivity with the existing and planned transitway system due to interlining with the Blue Line (LRT) and convenient transfer to the Green Line (LRT).
 - BRT is limited by single-vehicle capacity (e.g. buses cannot be linked together).
 - Intersection analysis indicates that the roadway system will not be able to accommodate additional BRT vehicles beyond the assumed six-minute headways while still maintaining acceptable operations.
 - 2030 ridership forecasts show that transitway demand at the maximum load point entering downtown Minneapolis during the morning peak hour exceeds the capacity of the BRT alternative.
 - LRT has more flexibility to accommodate future demand following the initial investment.
- **Goal 4: Promote Sustainable Development Patterns**
 - No significant alternative differentiators under this project goal.
 - **Goal 5: Support Healthy Communities and Sound Environmental Practices**
 - Preliminary traffic analyses indicate that six-minute frequencies are the maximum frequencies that can operate with signal prioritization without adversely disrupting general traffic at key high-volume intersections.
 - BRT Alternative would travel to 2nd/Marquette Avenues in mixed traffic, and would add to capacity issues on the downtown street network.
 - The owner of the railroad corridor for which BRT would operate in has gone on record through the Scoping Process indicating they “will not support the BRT option”.

BE IT FURTHER RESOLVED that the alternatives to be carried forward into the Draft EIS for the Bottineau Transitway include the No-Build, the Transportation System Management and the following Build Alternatives:

1. **Light Rail Transit (LRT) Alternatives** – four LRT Alternatives defined as:
 - A-C-D1 – Maple Grove to Minneapolis via Burlington Northern Santa Fe (BNSF) railroad
 - A-C-D2 – Maple Grove to Minneapolis via West Broadway/Penn Avenue
 - B-C-D1 – Brooklyn Park to Minneapolis via BNSF railroad
 - B-C-D2 – Brooklyn Park to Minneapolis via West Broadway/Penn Avenue

Alignment A – originates in Maple Grove at Hemlock Lane/Arbor Lakes Parkway, and follows the future Arbor Lakes Parkway and Elm Creek Boulevard to the BNSF railroad corridor located on the west side of Bottineau Boulevard.

Alignment B – begins at the Target North Campus (located just north of Highway 610) follows West Broadway Avenue, and crosses Bottineau Boulevard at 73rd Avenue to enter the BNSF railroad corridor.

Alignment C – both the A and B alignments would transition to the C alignment in the BNSF rail corridor on the west side of Bottineau Boulevard through southern Brooklyn Park, Crystal and Robbinsdale.

Alignment D1 – continues along the BSNF railroad corridor to Olson Memorial Highway, and then follows Olson Memorial Highway to downtown. Under this alignment, two station options in Golden Valley will be studied: Golden Valley Road and Plymouth Avenue/Wirth Park.

Alignment D2 – exits the railroad corridor near 34th Avenue, joins West Broadway Avenue, and travels on Penn Avenue to Olson Memorial Highway and into downtown. Under this alignment, Penn Avenue would be widened to allow LRT as well as north- and southbound traffic to operate on Penn Avenue, and;

BE IT FURTHER RESOLVED the LRT Alternatives will include the evaluation of station locations, connecting bus network, operations and maintenance facility, and general locations for traction power substations, and;

BE IT FURTHER RESOLVED that if, through more detailed study in the Draft EIS, it is revealed that a Build Alternative(s) described herein is/are determined to no longer meet the defined project purpose and need, the project partners – FTA, HCRRA and the Metropolitan Council, in consultation with the PAC, will make a determination regarding whether alternatives should be further screened and follow the appropriate disclosure process under both the Federal and state environmental review processes, and;

BE IT FURTHER RESOLVED that the PAC hereby officially transmits this advisory resolution to HCRRA for action under MEPA rules and requests inclusion of this resolution in the Bottineau Transitway Scoping Decision Document.

Attest:



April 23, 2012

Hennepin County Regional Railroad Authority

STATE OF MINNESOTA

COUNTY OF HENNEPIN

CLERK OF THE BOARD

I, YOLANDA C. CLARK, Clerk of the Regional Railroad Authority (RRA) Board of the above named County, do hereby certify that I have compared the papers writing, to which this certificate is attached, with the original

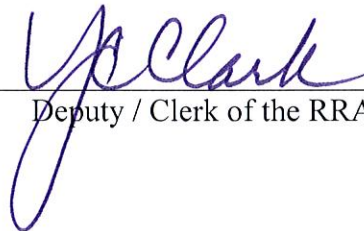
Resolution No. 12-HCRRRA-0028, adopted by Hennepin County Regional Railroad Authority Board of Commissioners on May 8, 2012

as the same appears of record and on file in the said Clerk of the Board's office, at the Government Center in said Hennepin County, and find the same to be true and correct copy thereof.

IN TESTOMONY WHEREOF, I have hereunto set my hand and affixed the seal of said County at the City of Minneapolis, this 09th day of May A.D. 2012

YOLANDA C. CLARK
Clerk of the RRA Board

by:



Deputy / Clerk of the RRA Board

**Regional Railroad Authority
Hennepin County, Minnesota
RESOLUTION NO. 12-HCRRRA-0028**



[2012]

The following Resolution was offered by Commissioner Opat and seconded by Commissioner Stenglein:

BE IT RESOLVED, that the Hennepin County Regional Railroad Authority (HCRRRA) adopt the Scoping Decision recommended by the Policy Advisory Committee (PAC) that the LRT alternatives (A-C-D1, A-C-D2, B-C-D1, and B-C-D2), the Transportation System Management and No-Build alternatives be carried forward for further study in the Draft Environmental Impact Statement (DEIS); and

BE IT FURTHER RESOLVED, that if, through more detailed study in the DEIS, it is revealed that a Build Alternative(s) described herein is/are determined to no longer meet the defined project purpose and need, the project partners – Federal Transit Administration (FTA), HCRRRA and the Metropolitan Council, in consultation with the PAC, will make a determination regarding whether alternatives should be further screened and follow the appropriate disclosure process under both the federal and state environmental review processes; and

BE IT FURTHER RESOLVED, the Bottineau Scoping Decision Document will reflect the decision of the HCRRRA, and will include project information in compliance with Minnesota Environmental Rule 4410.2100, Subp. 6.

The question was on the adoption of the resolution and there were 6 YEAS and 1 NAYS, as follows:

Board of Commissioners Hennepin County Regional Railroad Authority	YEAS	NAYS	ABSTAIN	ABSENT
Mike Opat	X			
Mark Stenglein	X			
Gail Dorfman	X			
Peter McLaughlin	X			
Randy Johnson	X			
Jan Callison	X			
Jeff Johnson		X		

RESOLUTION ADOPTED ON 5/8/2012

Y. Clark

ATTEST:

Deputy/Clerk to the County Board

**Bottineau Transitway Community Advisory
Committee (CAC) Scoping Input to the Policy
Advisory Committee (PAC) and the Advise,
Review and Communicate Committee
(ARCC)**

Bottineau Transitway Community Advisory Committee (CAC) Scoping Input to the Policy Advisory Committee (PAC) and the Advise, Review and Communicate Committee (ARCC)

Introduction

This paper provides scoping input for the Bottineau Transitway Draft Environmental Impact Statement (Draft EIS) from the Bottineau Transitway Community Advisory Committee (CAC).

CAC members appreciate their roles in:

- Representing communities, businesses and institutions in the Bottineau Corridor study area. Providing a conduit for integrating the values and perspectives of citizens, communities, businesses, and institutions into the study process.
- Providing a multi-faceted communications link between the communities or organizations represented and the study process.
- Communicating with ARCC members, the Policy Advisory Committee (PAC), and the project management team (PMT)
- Preview of study materials planned for release to public stakeholders.

Scoping Input

The following scoping input is based on CAC participation in the Bottineau Transitway Alternatives Analysis Study process and the Draft EIS scoping process to date. This input is the result of discussions at the February 9, 2012 CAC meeting.

1. LRT Mode Preference.
 - The CAC has a strong preference for LRT for the Bottineau Transitway. LRT is seen as the best transit mode to serve the long range needs of the corridor.
2. Transitway Alignment Preferences
 - Alignment B is favored over Alignment A. Alignment A should be considered for future expansion potential. Alignment A has the benefits of Maple Grove Transit service and uncertainty regarding future development of the gravel mining area. Alignment B has near term emerging needs.
 - Alignment D1 is favored over Alignment D2. Trade offs are recognized but alignment D1 is considered preferable from a system wide perspective. CAC preference is to study both Alignments D1 and D2 in the Draft EIS. Further study of Alignment D1 needs to identify and assess enhanced transit connections to D1 stations, especially for North Minneapolis.

3. Challenges, impacts and benefits which need to be addressed in the Draft EIS>
- Noise and vibrations for close-by properties
 - Grade crossing bells and signals
 - Visual effects of tracks, overhead wires and support poles which power LRT vehicles (catenary system) and stations.
 - Possible need for visual screening mitigation
Number of homes adjacent to the rail corridor, especially properties in Crystal and Robbinsdale close to rail corridor
 - Impacts on residential and commercial property values
 - Market assessment of transit-oriented development (TOD) potential.
Assessment of mixed use development balance, parking needs, planning and zoning requirements, and financing in relation to future land use planning efforts is needed.
 - Assess potential for transit passengers to park in neighborhoods close to transit stations (“park and hide”).
 - Assess impacts of increased pedestrian traffic in neighborhoods close to transit stations.
 - Assess impacts of operating subsidies on the public as the transit system is expanded.
 - Assess safety around the tracks and at grade crossings.
 - Assess benefits of increased transit usage in corridor could have in helping relieve congestion on County Road 81, improving travel time of the road for freight shipments and auto users.
 - Assess benefits of police presence on light rail creating atmosphere of safety for passengers.
 - Improved transit will serve growth in the corridor and support the year 2030 regional development planning framework.
 - Improved transit will make transit more accessible and provide higher utility for people. Opportunities become more “reachable” for corridor residents.
 - Improved transit will improve mobility for people with disabilities.
 - Improved transit will make travel to activity centers more affordable for families.
 - Improved transit will make travel more accessible for seniors.
 - Improved transit will create options for travel to the urban core, where parking is expensive.
 - Improved transit in the Bottineau Corridor is part of building out a regional system of transit service.
 - Emphasize the Target Campus expansion in Brooklyn Park: 3,900 jobs to be accommodated.
 - Emphasize the Bottineau Transitway’s role in supporting regional growth.
 - Emphasize the potential for student use of the transitway. Emphasize the potential for expansion of the two colleges in the corridor.
 - Assess the potential for multi-modal facilities/connections in the corridor.

**Advise, Review and Communicate
Committee (ARCC) Input to the Policy
Advisory Committee (PAC)**

ARCC Input to the Policy Advisory Committee for the April 23, 2012, PAC Meeting: Scoping Decision

Introduction

This paper provides input from the Bottineau Transitway technical staff group, called the Advise, Review, and Communicate Committee (ARCC), to the project's policy advisors which includes elected officials, key policy leaders for participating agencies, business leaders, and institutional leaders, called the Policy Advisory Committee (PAC), regarding the selection of alternatives to be carried forward for further evaluation in the Draft Environmental Impact Statement (Draft EIS) – referenced as the "Scoping Decision."

The input provided by the ARCC on the Scoping Decision is based on the technical analysis prepared as part of the Scoping Booklet, comments received and considered during the official Scoping review and comment period, as well as further technical analyses completed on Alignments A and B in the northern end of the corridor, Alignments D1 and D2 in the southern end of the corridor, Bus Rapid Transit (BRT) and Light Rail Transit (LRT) on a system-wide comparison, updated ridership forecast results, and updated capital cost estimates. The technical analysis findings have been summarized and documented in comparative matrices, which are included as attachments to this document, along with a map showing the alternatives and alignment options.

Context

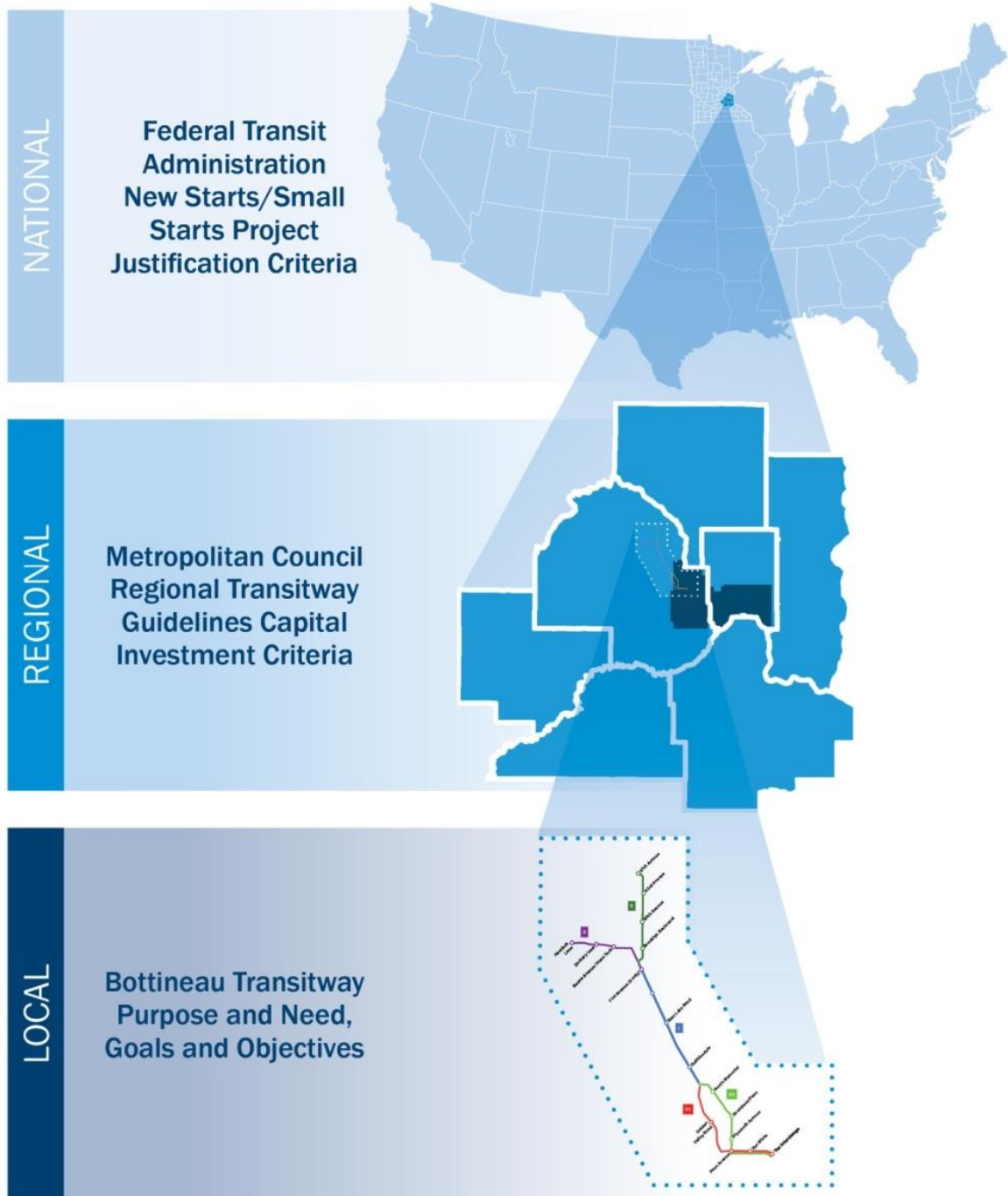
As shown in Exhibit 1, three sets of evaluation criteria are relevant to the Bottineau Transitway project:

- the project purpose and need, and goals and objectives (local criteria);
- the Metropolitan Council transitway capital investment criteria (regional criteria); and
- the Federal Transit Administration (FTA) New Starts/Small Starts project justification criteria (national criteria).

All three sets of criteria emphasize transit ridership, service and cost effectiveness, land use and economic development, and service to people who depend on transit, among other factors.

The primary decision-making criteria for input relative to the selection of alternatives to be carried forward for further evaluation in the Draft EIS are the Bottineau Transitway purpose and need and associated goals and objectives. Project consistency with the regional and national criteria help assure that the comparative analysis of alternatives conducted during the Scoping process will result in a locally preferred alternative (LPA) that is adequately assessed with respect to those criteria. In turn, attention to these criteria will help position the Bottineau Transitway project to be competitive with other projects seeking limited funding, both regionally and nationally.

Exhibit 1. Evaluation Criteria for Bottineau Transitway Project



Purpose and Need

The purpose of the Bottineau Transitway is to provide transit service which will satisfy the long-term regional mobility and accessibility needs for businesses and the traveling public.

Five factors contribute to the need for the Bottineau Transitway project:

- Growing travel demand
- Increasing traffic congestion
- People who depend on transit
- Limited transit service to suburban destinations (reverse commute opportunities) and time-efficient transit options
- Regional objectives for growth

The Bottineau Transitway project goals and objectives are shown below. They were developed to serve as a framework to first develop and then evaluate the alternatives under consideration. Goals 1, 2, and 3 reflect the core purpose and need of the project; Goals 4 and 5 reflect broader community sustainability goals. For an alternative to be advanced, the core purpose and need of the Bottineau Transitway (Goals 1,2, and 3) must be met. Goals 4 and 5 are considered in the evaluation of alternatives that meet the core purpose and need. All of the alternatives assessed during the scoping process were considered to meet the core project purpose and need, though not all to the same degree.

Goal 1: Enhance Regional Access to Activity Centers	
1	Maximize total transit riders
2	Improve service to people who depend on transit
3	Expand reverse commute and off-peak transit opportunities
4	Increase transit system linkages, access to regional destinations, and multimodal transportation opportunities
5	Maximize transit access to housing, employment, schools, community services, health care facilities, and activity centers
Goal 2: Enhance the Effectiveness of Transit Service within the Corridor	
6	Maximize new transit riders
7	Maximize passengers per hour of revenue service
8	Maximize traveler time savings
Goal 3: Provide a Cost-Effective and Financially Feasible Transit System	
9	Balance project costs and benefits (minimize CEI)
10	Minimize project capital and operating cost
11	Maximize long-term investment in the regional transit system
12	Maximize flexibility to efficiently expand the transit investment to accommodate transitway demand beyond 2030 weekday travel demand forecasts

Goal 4: Promote Sustainable Development Patterns	
13	Promote land development and redevelopment that supports sustainable transportation policies
14	Ensure compatibility with local and regional comprehensive plans
15	Support economic development and redevelopment efforts
Goal 5: Support Healthy Communities and Sound Environmental Practices	
16	Minimize impacts on wetlands/water/floodplains, parks, visual resources, noise/vibration, and historic/cultural resources
17	Minimize short- and long-term impacts to property, property access, and on-street parking
18	Maximize cohesion, preservation, and enhancement of Bottineau Transitway communities
19	Maximize pedestrian and bicycle connections to the Bottineau Transitway
20	Maximize health, environmental, and economic benefits to the Bottineau Transitway communities
21	Minimize disproportionately high and adverse impacts on the region's minority and/or low-income communities
22	Minimize area traffic impacts

Summary of Alternatives

Five alternatives have been under consideration during the Scoping process. Summary characteristics of each are provided in Exhibit 2.

Exhibit 2. Alternative Summary Characteristics

	A-C-D1	A-C-D2	B-C-D1	B-C-D2	BRT (B-C-D1)
Capital cost (\$2017, in millions) ¹	\$960	\$1,050	\$1,000	\$1,090	\$560
Cost effectiveness index (CEI)	23	26	26	31	21
CEI rating ²	Medium	Medium-low	Medium-low	Medium-low	Medium
Ridership (total)	27,600	27,200	27,000	26,000	19,900
Ridership (new)	8,400	7,800	7,150	6,500	5,650
Operating cost (\$2011, in millions) ¹	\$22.4	\$23.7	\$24.1	\$25.1	\$20.7
Operating cost/passenger	\$2.46	\$2.64	\$2.70	\$2.92	\$3.15
Alternative length ³	12.6 miles	12.7 miles	13.3 miles	13.4 miles	12.9 miles
Alternative travel time ³	25:37	29:36	29:04	33:03	30:03
User benefit hours	9,460	9,000	8,520	7,940	5,880

¹ Cost estimates provided are a snapshot in time and are based on the level of design development contemplated as part of scoping. Cost estimates will continue to be refined as the Draft EIS technical analysis is completed.

² CEI rating breakouts (FY 2013, FTA). High: 12.49 and under. Medium-high: 12.50-16.49. Medium: 16.50-25.49. Medium-low: 25.50-31.49. Low: 31.50 and over.

³ For LRT, southern terminus is the Interchange/Target Field station. For BRT, southern terminus is Border Avenue/TH 55.

Summary of Alignment and Mode Comparisons

During Scoping, a comparative decision-making process was used to evaluate the alternatives. Three key comparisons were made:

- Alignment A vs. Alignment B
- Alignment D1 vs. Alignment D2
- LRT mode vs. BRT mode

Each comparison was made with respect to performance against the project goals and objectives. These comparisons were intended to provide context for judging the modal or alignment alternatives' performance on each criterion.

The text that follows briefly describes the key differentiators for each of the three comparisons, as well as other differences and discussion points in the comparisons. In most cases, the key differentiators are items where at least a two-step difference is present in the technical rating matrices included in the attachment. The corresponding number for each objective discussed is identified in the narrative.

Alignment A vs. Alignment B Key Differentiators

- Multimodal connections (#4): Based on current networks and planned improvements, Alignment B has greater local transit and pedestrian connectivity than Alignment A.
- Economic development (#15): Both Alignment A and B have potential for substantial new mixed use development over the long term, given the large supply of undeveloped land in both areas and planning directions identified in local comprehensive plans. However, the alignments have different levels of short-term development potential. Much of the land in the Alignment A (Maple Grove) station areas is used for gravel mining today; some needed transportation infrastructure (future Arbor Lakes Parkway) is not present or currently funded. Land in Alignment B (Brooklyn Park) station areas does not have such constraints. For these reasons, Alignment B has greater short-term development potential than Alignment A.

Other Differences and Discussion Points

- Regional access (#5): While alternatives containing the two alignments would have similar transit ridership, Alignment B would generally provide access to greater numbers of people, housing units, retail opportunities, educational institutions, and parks than Alignment A.
- Service effectiveness (#6-8): Alternatives containing Alignment A would carry slightly more passengers per revenue hour and would produce greater transportation system user benefits than Alignment B.
- Capital cost and cost effectiveness (#9, 10): Alignment A scores better (lower) on the cost effectiveness index and has somewhat lower capital costs than Alignment B, due to the greater length of Alignment B.

- Traffic impacts (#22): Alignment A would have fewer adverse impacts on the existing local street network and intersections than Alignment B, due to the location of Alignment A in a currently less-developed area.
- Local support: In its scoping comment letter, the City of Brooklyn Park expressed support for further study of Alignment B. The City of Maple Grove expressed support for further study of both A and B. No other city expressed a preference for A or B in their scoping comment letters.

ARCC INPUT ON ALIGNMENTS A AND B

The direction from the ARCC is to study both Alignments A and B in the Draft EIS review process.

Alignment D1 vs. Alignment D2

Key Differentiators

- Regional access (#5): Alignment D2 would provide greater access to housing, employment, etc., than Alignment D1, due to its greater proximity to dense urban neighborhoods and the fact that it includes one more station than Alignment D1.
- Economic development (#15): Alignment D2 would likely have somewhat greater potential to induce transit-oriented development than Alignment D1, due to its greater proximity to dense urban neighborhoods and activity centers and because it has one more station than Alignment D1.
- Water resources (#16): Alignment D2 would have fewer impacts on water resources than Alignment D1. Alignment D2 is located in upland/fully developed areas, whereas Alignment D1 would impact wetlands and the floodplain/floodway in the Theodore Wirth Park area.
- Property access and impacts (#17): In order to maintain two-way traffic movement on Penn Avenue between West Broadway Avenue and Highway 55, Alignment D2 would necessitate the widening of Penn Avenue. This would require access closures, full or partial acquisition of up to 150 residences and businesses, and removal of all on-street parking.
- Traffic impacts (#22): Because much of Alignment D1 would be in the railroad right-of-way, it would have substantially fewer adverse impacts related to traffic diversion, local street network changes, and intersection closures than Alignment D2.

Other Differences and Discussion Points

- People who depend on transit (#2): Analysis from ridership forecasts indicates that service to people who depend on transit is not a key differentiator between the two alignments. Alignment D1 and Alignment D2 would both serve similar numbers of people who do not have a vehicle in their household.
- Multimodal connections (#4): Alignment D2 would offer somewhat greater multimodal transportation connectivity than Alignment D1, and provides greater access to housing, employment, and other destinations, such as North Memorial Medical Center and NorthPoint Health and Wellness Center.

- Service effectiveness (#7, 8): Alternatives containing Alignment D1 would carry slightly more passengers per revenue hour and would produce greater transportation system user benefits than Alignment D2.
- Cost effectiveness and capital cost (#9, 10): Alignment D1 scores somewhat better (lower) on the cost effectiveness index and has lower capital costs than Alignment D2.
- Noise and vibration (#16): Concerns over noise and vibration impacts for Alignments D1 and D2 have been expressed by project stakeholders and will be evaluated further in the Draft EIS.
- Property acquisition process: Because the majority of Alignment D1 would run within the BNSF right-of-way, it would require negotiation and agreement with two property owners, mainly BNSF and the Minneapolis Park and Recreation Board. In contrast, Alignment D2 would require right-of-way agreements with a large number of public and private land owners.
- Local support: In their scoping comment letters, the Cities of Brooklyn Park, Crystal, and Robbinsdale expressed a preference for further study of Alignment D1. The City of Golden Valley expressed a preference for Alignment D2 and the City of Maple Grove expressed interest in further study of both Alignments D1 and D2. The City of Minneapolis indicated difficulty in supporting either Alignment D1 or D2 due to the impacts of each. The Minneapolis Park and Recreation Board expressed support for Alignment D2 and opposition to Alignment D1.

ARCC INPUT ON ALIGNMENTS D1 AND D2

The direction from the ARCC is to study both Alignments D1 and D2 through the Draft EIS review process.

LRT Mode vs. BRT Mode

The discussion below compares the BRT alternative under consideration to the corresponding LRT alternative, both of which follow the B-C-D1 alignment.

Key Differentiators

- Ridership (#1): LRT is forecast to serve approximately 35 percent more transit trips than BRT.
- Regional access and connectivity (#4): LRT would provide greater connectivity to the regional transit system than BRT. LRT would connect directly to the Interchange multimodal hub and also forms a through-routed system with Hiawatha LRT (Blue Line), whereas BRT does not.
- Special event service (#5): LRT would provide service for special events that is more convenient and direct, and has more capacity than BRT.
- Service effectiveness (#6-8): LRT would attract more riders than BRT. In addition, because the passenger capacity of light rail vehicles is higher than bus capacity, LRT would require fewer driver hours to meet demand. With higher ridership and fewer revenue hours (driver hours), LRT would serve more than twice as many passengers per revenue hour than the BRT alternative. The LRT travel time is faster than BRT; combined with higher ridership, this would result in substantially greater transportation system user benefits for LRT over BRT.

- Cost effectiveness and capital cost (#9, 10): BRT scores better (lower) on the cost effectiveness index than LRT and carries substantially lower capital cost. However, LRT would have a lower operating costs per passenger (is more cost-efficient to operate) than BRT.
- Ability to accommodate ridership demand (#11, 12): The LRT alternative would have more than 2.5 times the passenger capacity of the BRT alternative during rush hours. BRT requires greater frequency (6-minute headways for BRT vs. 7.5 for LRT) to meet 2030 demand. LRT would be at 77-85 percent capacity in year 2030. In contrast, BRT would be over 100 percent capacity in 2030. LRT capacity could be expanded by 50 percent by adding a third car to the two-car trains with little adverse impacts on roadway traffic. BRT capacity expansion would require decreasing transitway headways; the addition of more frequent BRT vehicles at roadway crossings would have major adverse impacts on roadway traffic. Ridership forecast results indicate all of the capacity of the BRT alternative would be used by the year 2030, and that demand for 1,200 trips per day could not be served by the BRT alternative.
- Economic development potential (#15): LRT would likely have greater development benefits than BRT, based on greater ridership and familiarity to developers.
- Noise and vibration (#16): BRT would have lower noise and vibration impacts than LRT. LRT noise would result from steel wheels on rails and bells at station stops. LRT vibration would be greater due to greater weight of LRT vehicles as compared to BRT vehicles.
- Traffic impacts (#22): LRT would have less much less adverse impact on traffic on the local street network than BRT. This is because LRT can operate at lower frequencies than BRT to meet ridership demand and because BRT would be street-running in downtown Minneapolis.

Other Differences and Discussion Points

- Property owner support: The owner of the railroad right-of-way (BNSF Railway) where the LRT or BRT alternatives would operate has indicated they will not support BRT in this location. The railway's concerns have been related to potential safety hazards of BRT vehicles operating adjacent to an active freight rail line.
- Local support: In their scoping comment letters, the Cities of Brooklyn Park and Robbinsdale expressed a preference for further study of LRT as the preferred transit mode. The City of Crystal expressed a preference for further study of both LRT and BRT.

ARCC INPUT ON BRT AND LRT

The direction from the ARCC is to stop study of the BRT alternative, which includes no study of BRT in the Draft EIS review process.