Appendix A - Initially Considered Alternatives Screening

SRF Kimley-Horn and Associates, Inc.

V. Good	Good	Fair	Poor	**Arterial BRT on Lake Street - Overall Rating: GOOD**	**RATING**
1. Consistency with regional and local plans • Mode characteristics are consistent with Metropolitan Council recommendations stated in the *Transportation Policy Plan (TPP)* and in the *Regional Transitway Guidelines (Guidelines)* • Mode characteristics are consistent with local and other plans and policies				• The 2030 Regional *Transportation Policy Plan (TPP)* identifies Lake Street in the network of potential Arterial BRT corridors (pg 142). • Mode design characteristics are consistent with Metropolitan Council recommendations stated in the *Regional Transitway Guidelines (Guidelines)* (Chpt 5, pg 41). • Arterial BRT is consistent with *TPP* market areas 1 and 2 (Chpt 2, pg 11). • The 2012 *Arterial Transitway Corridors Study* ranked Lake Street as its highest potential performing Arterial BRT corridor based on technical factors (ATCS, pg 65). **CONCLUSION: VERY GOOD. Arterial BRT on Lake Street is consistent with *TPP* and the *Guidelines* with regard to mode and market area and consistent with the *Arterial Transitway Corridors Study*.**	**VERY GOOD**
2. Level of access provided to jobs and residents • Mode station spacing guidelines provide sufficient numbers of stations within the study area to adequately serve major destination and activity centers				• The Guidelines state stations should be sited to maximize convenience and minimize travel times for transitway passengers and vehicles under existing and planned future conditions (Chpt 3, pg 15). • Arterial BRT has 13 potential station locations. • Arterial BRT station locations allow for service to all corridor activity centers and major retail centers as defined in the Minneapolis Plan for Sustainable Growth (pg 1-43 and 1-44). • Arterial BRT provides access to 20,000 residents and 12,000 jobs within ¼ mile of potential station locations and 47,000 residents and 27,000 jobs within ½ mile of potential station locations. **CONCLUSION: FAIR. Arterial BRT on Lake Street has 13 potential station locations, providing access to 20,000 residents and 12,000 jobs within ¼ mile of potential station locations and 47,000 residents and 27,000 jobs within ½ mile of potential station locations**	**FAIR**
3. Ability to provide desired transit capacity and speed increases • Mode design characteristics allow for transit speed increases • Mode is appropriate scale for current ridership levels but also provides room for growth				• The *Guidelines* state that Arterial BRT runningways should be full-sized lanes (10-12 feet) designed to support traffic traveling at posted speeds of less than 45 miles per hour, and features like station configurations, traffic control measures, and dedicated lanes should provide transit with a travel-time advantage. (Chpt 5, pg 41) • Arterial BRT will increase transit speeds on Lake Street. Route 21 average weekday in-service speed is approximately 6 mph from the Uptown Transit Center to the Midtown/Lake Street Hiawatha LRT station. Arterial BRT is estimated to travel at an average speed of 11.7 mph (ATCS Tech Memo 3, pg 25) • Operations in mixed traffic and the many signalized intersections on Lake Street will slow travel speeds compared to operations in the Greenway. • Route 21 buses are often near or at capacity. Arterial BRT allow for increased capacities: A standard 40' Diesel Transit Bus can accommodate 39 seated passengers and a full standing load of 60 passengers. A hybrid articulated bus can accommodate 76 seated passengers and a full standing load of 114 passengers. **CONCLUSION: FAIR. Arterial BRT on Lake Street would increase transit operating speeds and allow for an increase in ridership on Lake Street. However, Arterial BRT speeds will still be affected by operations in mixed traffic and the many signalized intersections along Lake Street.**	**FAIR**
4. Compatibility with existing transportation modes and infrastructure • Mode integrates well with existing transportation infrastructure and systems				• Arterial BRT would interface well with existing north-south bus service. • Arterial BRT would interface well with Southwest and Hiawatha LRT infrastructure. • Arterial BRT parking impacts would be limited to station locations. • Arterial BRT would not have any major impacts to pedestrian conditions on Lake Street. • Lake Street is not a bicycle corridor in the City of Minneapolis Bike Plan; use of the Midtown Greenway is encouraged. Arterial BRT on Lake Street would not affect the Minneapolis bicycle network. • Arterial BRT buses would stop in traffic and thus may impact vehicular traffic on Lake Street. **CONCLUSION: VERY GOOD. Arterial BRT would integrate well with existing bus infrastructure and existing and planned LRT infrastructure. Arterial BRT would also have minimal impacts on the existing bicycle, pedestrian, and vehicular traffic on Lake Street.**	**VERY GOOD**
5. Potential ROW impacts • Mode requires minimal right-of-way				• Arterial BRT would likely require some ROW around 13 station locations. • Arterial BRT would have minimal impact on the character of existing ROW. • Arterial BRT would likely require some ROW for a turnaround point on the east end of the alignment. **CONCLUSION: VERY GOOD. Arterial BRT would require minimal ROW.**	**VERY GOOD**
6. Community and stakeholder sentiment Mode is compatible with the following five sentiments consistently expressed by the public and the project advisory and stakeholder committees: • Does not require reconstruction of Lake Street • Does not remove a travel lane or greatly impact parking on Lake Street • Minimizes impacts to Greenway historic and cultural resources • Minimizes impacts to Greenway bicycle and pedestrian facilities • Mode is felt to have high economic development potential				• Arterial BRT would not require reconstruction of Lake Street. • Arterial BRT would not remove a travel lane from Lake Street. Parking impacts would be limited to station locations. • Arterial BRT would not impact Greenway historic and cultural resources. • Arterial BRT would not impact Greenway bicycle and pedestrian facilities. • Arterial BRT is felt to have some potential to spur economic development. **CONCLUSION: GOOD. Arterial BRT is consistent with broad community sentiment and specific comments made at stakeholder engagement sessions. It is also felt to have some potential to spur economic development.**	**GOOD**

	Streetcar on Lake Street - Overall Rating: FAIR	RATING
1. Consistency with regional and local plans • Mode characteristics are consistent with Metropolitan Council recommendations stated in the *Transportation Policy Plan (TPP)* and in the *Regional Transitway Guidelines (Guidelines)* • Mode characteristics are consistent with local and other plans and policies	• *2030 Regional Transportation Policy Plan (TPP)* notes that Streetcars typically operate in mixed traffic and are subject to traffic congestion, although they may be given priority at intersections. They typically stop every few blocks and operate shorter distances than LRT with an emphasis on high frequency service with high accessibility (Chpt 7, pg 151). • The *TPP* notes: Streetcar service is particularly suitable for high density areas with short average passenger trip lengths and to attract infrequent transit users like shoppers or visitors (Chpt 7, pg 151). • Streetcar is not specifically described in the *Regional Transitway Guidelines (Guidelines)* but operating and design characteristics are consistent with market areas 1 and 2 (Chpt 2, pg 11). • The *Minneapolis Streetcar Feasibility Study* favors Streetcar on the Greenway over Streetcar on Lake Street (pg 3-1). **CONCLUSION: FAIR. Streetcar on Lake Street is consistent with the *TPP* and with the *Guidelines* with regard to mode and market; however it is inconsistent with the *Minneapolis Streetcar Feasibility Study.*** V. Good | Good | Fair | Poor	FAIR
2. Level of access provided to jobs and residents • Mode station spacing guidelines provide sufficient numbers of stations within the study area to adequately serve major destination and activity centers	• The Guidelines state stations should be sited to maximize convenience and minimize travel times for transitway passengers and vehicles under existing and planned future conditions (Chpt 3, pg 15). • Streetcar on Lake Street has 16 potential station locations. • Lake Street streetcar station locations allow for service to all corridor activity centers and major retail centers as defined in the Minneapolis Plan for Sustainable Growth (pg 1-43 and 1-44). • Streetcar on Lake Street provides access to 22,000 residents and 12,000 jobs within ¼ mile of potential station locations and 48,000 residents and 27,000 jobs within ½ mile of potential station locations. **CONCLUSION: GOOD. Streetcar on Lake Street has 16 potential station locations providing access to 22,000 residents and 12,000 jobs within ¼ mile of potential station locations and 48,000 residents and 27,000 jobs within ½ mile of potential station locations.**	GOOD
3. Ability to provide desired transit capacity and speed increases • Mode design characteristics allow for transit speed increases • Mode is appropriate scale current ridership levels but also provides room for growth	• Streetcar on Lake Street will increase transit speeds on Lake Street. Route 21 average weekday in-service speed is approximately 6 mph from the Uptown Transit Center to the Midtown/Lake Street Hiawatha LRT station. Streetcar average speed in mixed traffic is 6-12 mph (ATCS Tech Memo 2, pg 6). • Operations in mixed traffic and the many signalized intersections on Lake Street will slow travel speeds compared to operations in the Greenway. • Route 21 buses are often near or at capacity. Streetcar will allow for increased capacities: A standard 40' Diesel Transit Bus can accommodate 39 seated passengers and a full standing load of 60 passengers. Modern street car vehicles can accommodate a full standing load of 115 passengers. **CONCLUSION: FAIR. Streetcar on Lake Street would increase transit operating speeds and allow for an increase in ridership on Lake Street. However, Streetcar on Lake Street speeds will still be affected by operations in mixed traffic and the many signalized intersections along Lake Street.**	FAIR
4. Compatibility with existing transportation modes and infrastructure • Mode integrates well with existing transportation infrastructure and systems.	• Streetcar on Lake Street would interface well with existing north-south bus service. • Providing a direct connection to Southwest LRT would likely require additional track to access the track and station platform behind Whole Foods or modifications to the Lake Street Bridge. . Transfers to Hiawatha LRT would use existing vertical connections, but would require the guideway to transition into a dedicated guideway to accommodate the platform and necessary track to allow the streetcar to change directions. Accommodating these improvements would be challenging due to existing development and infrastructure on both sides of Lake Street at the Hiawatha Station. • Streetcar parking impacts would be limited to station locations. • Streetcar would not have any major impacts to pedestrian conditions on Lake Street. • Lake Street is not a bicycle corridor in the City of Minneapolis Bike Plan; use of the Midtown Greenway is encouraged. Streetcar on Lake Street would not affect the Minneapolis bicycle network. • Streetcars would stop in traffic and thus may impact vehicular traffic on Lake Street. **CONCLUSION: GOOD. Streetcar on Lake Street would integrate well with existing bus infrastructure and have minimal impacts on the existing bicycle, pedestrian, and vehicular traffic on Lake Street. Streetcar on Lake Street will use vertical infrastructure to connect with Hiawatha LRT, but would require additional infrastructure at both ends of the alignment to create an easy transfers and turnaround points.**	GOOD
5. Potential ROW impacts • Mode requires minimal right-of-way	• Streetcar on Lake Street would likely require some ROW around 16 station locations. • Streetcar on Lake Street would likely require some ROW for traction power substations (approximately one per mile) and overhead catenary poles. Streetcar traction power substations can range in size from 10 feet by 15 feet to 15 feet by 25 feet. • Streetcar on Lake Street would likely require ROW to provide a platform connection between the streetcar and Southwest LRT line. Depending on the track configuration, additional ROW may be required to allow the streetcar to change direction at either end of the alignment. **CONCLUSION: FAIR. Streetcar on Lake Street would require some ROW.**	FAIR
6. Community and stakeholder sentiment Mode is compatible with the following five sentiments consistently expressed by the public and the project advisory and stakeholder committees: • Does not require reconstruction of Lake Street • Does not remove a travel lane or greatly impact parking on Lake Street • Minimizes impacts to Greenway historic and cultural resources • Minimizes impacts to Greenway bicycle and pedestrian facilities • Mode is felt to have high potential to spur economic development potential	• Streetcar on Lake Street would require partial reconstruction of Lake Street. • Streetcar on Lake Street would not remove a travel lane from Lake Street. Parking impacts would be limited to station locations. • Streetcar on Lake Street would not impact Greenway historic and cultural resources • Streetcar on Lake Street may minimally impact Greenway bicycle and pedestrian infrastructure near the Southwest LRT West Lake station to accommodate the trail near the station platforms. • Streetcar on Lake Street if felt to have high potential to spur economic development. **CONCLUSION: FAIR. Streetcar on Lake Street is inconsistent with broad community sentiment and specific comments made at stakeholder engagement sessions regarding reconstruction of Lake Street. However, it would not remove a travel lane on Lake Street or impact Greenway resources, and is felt to have high potential to spur economic development.**	FAIR

V. Good	Good	Fair	Poor	LRT on Lake Street – Overall Rating: POOR	RATING
1. Consistency with regional and local plans • Mode characteristics are consistent with Metropolitan Council recommendations stated in the *Transportation Policy Plan (TPP)* and in the *Regional Transitway Guidelines (Guidelines)* • Mode characteristics are consistent with local and other plans and policies				• The *Regional Transitway Guidelines (Guidelines)* describe LRT runningways as exclusive, generally at-grade double track, with crossovers and storage tracks provided as needed (Chpt 5, pg 39). • Ballasted track is lower cost and preferred, with embedded track used where tracks are within urban streets including at vehicle and/or pedestrian crossing locations. Much like the Central Corridor, LRT on Lake Street would likely require embedded track for most of its length. (Regional Transitway Guidelines, Chpt 5, pg 39). • LRT is consistent with market areas 1 and 2 (Regional Transitway Guidelines, Chpt 2, pg 11). **CONCLUSION: GOOD. LRT on Lake Street is consistent with the *Guidelines* in regard to mode and market.**	GOOD
2. Level of access provided to jobs and residents • Mode station spacing guidelines provide sufficient numbers of stations within the study area to adequately serve major destination and activity centers				• The *Guidelines* state stations should be sited to maximize convenience and minimize travel times for transitway passengers and vehicles under existing and planned future conditions. (Chpt 3, pg 15) • LRT on Lake Street has nine potential station locations. • Potential station locations allow for service to all corridor activity centers and major retail centers defined in the Minneapolis Comprehensive Plan (pg 1-43 and 1-44) • LRT on Lake Street provides access to 18,000 residents and 12,000 jobs within ¼ mile of potential station locations and 47,000 residents and 27,000 jobs within ½ mile of potential station locations. **CONCLUSION: FAIR. LRT on Lake Street has nine potential station locations providing access to 18,000 residents and 12,000 jobs within ¼ mile of potential station locations and 47,000 residents and 27,000 jobs within ½ mile of potential station locations**	FAIR
3. Ability to provide desired transit capacity and speed increases • Mode design characteristics allow for transit speed increases • Mode is appropriate scale for current ridership levels but also provides room for growth				• LRT on Lake Street will increase transit speeds on Lake Street, because it would operate in an exclusive guideway. Route 21 average weekday in-service speed is approximately 6 mph from the Uptown Transit Center to the Midtown/Lake Street Hiawatha LRT station. LRT speed on Lake Street would be dictated by posted speed limits. The posted speed limit on Lake Street west of Lake Calhoun Parkway is 35mph. East of Lake Calhoun Parkway the posted speed limit is 30 mph. • The many signalized intersections on Lake Street will slow travel speeds compared to operations in the Greenway. • Route 21 buses are often near or at capacity. LRT will allow for increased capacities: A standard 40' Diesel Transit Bus can accommodate 39 seated passengers and a full standing load of 60 passengers. LRT vehicles can accommodate 68 seated passengers and a full standing load of 160 to 180 passengers per LRT vehicle. **CONCLUSION: GOOD. LRT on Lake Street would increase transit operating speeds and allow for an increase in ridership on Lake Street. However, LRT on Lake Street speeds will still be affected by the many signalized intersections along Lake Street.**	GOOD
4. Compatibility with existing transportation modes and infrastructure • Mode integrates well with existing transportation infrastructure and systems				• LRT would interface well with existing north-south bus service. • Providing a direct connection to Southwest LRT would likely require additional track to access the track and station platform behind Whole Foods modification of the Lake Street Bridge. but would require the guideway to transition into a dedicated guideway to accommodate the platform and necessary track to allow the streetcar to change directions. Accommodating these improvements would be challenging due to existing development and infrastructure on both sides of Lake Street at the Hiawatha Station. • LRT on Lake Street would significantly impact parking along Lake Street. • LRT on Lake Street may reduce the number of signalized intersections, reducing the number of pedestrian crossings on Lake Street, greatly impacting pedestrian traffic on Lake Street. • Lake Street is not a bicycle corridor in the City of Minneapolis Bike Plan; use of the Midtown Greenway is encouraged. LRT on Lake Street would not affect the Minneapolis bicycle network. • LRT on Lake Street would have major impacts to vehicular traffic on Lake Street; travel lanes would be reduced to one in each direction and some signalized intersections may be removed, reducing the level of access on Lake Street and some cross streets. **CONCLUSION: POOR. LRT on Lake Street would have major impacts on parking and vehicular and pedestrian traffic on Lake Street. LRT on Lake Street will use vertical infrastructure to connect with Hiawatha LRT, but would require additional infrastructure at both ends of the alignment to create an easy transfers and turnaround points.**	POOR
5. Potential ROW impacts • Mode requires minimal right-of-way				• LRT needs approximately 30 feet of right-of-way for two tracks, and approximately 40 feet of right-of-way at (split platform) stations. (CCLRT Design guidelines) • LRT on Lake Street would likely require some ROW around 9 station locations. LRT stations are significantly larger than streetcar and dedicated bus stations. • LRT on Lake Street would likely require some ROW at all intersections along the alignment to accommodate lanes for left turning movements and bus stop/right turn lanes. • LRT on Lake Street would likely require some ROW for traction power substations (approximately one per mile) and overhead catenary poles. LRT traction power substations are approximately 20 feet by 40 feet. • LRT on Lake Street would likely require ROW to provide a platform connection between the Lake Street LRT and Southwest LRT line. Depending on the track configuration, additional ROW may be required to allow the LRT to change direction at either end of the alignment. • The large footprint required for an exclusive guideway would require the conversion of existing vehicular ROW to an exclusive transit use for this alternative. **CONCLUSION: POOR. LRT on Lake would require a significant amount of ROW.**	POOR
6. Community and stakeholder sentiment Mode is compatible with the following five sentiments consistently expressed by the public and the project advisory and stakeholder committees: • Does not require reconstruction of Lake Street • Does not remove a travel lane or greatly impact parking on Lake Street • Minimizes impacts to Greenway historic and cultural resources • Minimizes impacts to Greenway bicycle and pedestrian facilities • Mode is felt to have high potential to spur economic development potential				• LRT on Lake Street would require full reconstruction of Lake Street. • LRT on Lake Street would remove a travel lane and/or a parking lane in each direction from Lake Street. • LRT on Lake Street would not impact Greenway historic and cultural resources. • LRT on Lake Street may minimally impact Greenway bicycle and pedestrian infrastructure near the Southwest LRT West Lake station to accommodate the trail near the station platforms. • LRT on Lake Street is felt to have high potential to spur economic development **CONCLUSION: POOR. LRT on Lake Street is inconsistent with broad community sentiment and specific comments made at stakeholder engagement sessions regarding reconstruction of Lake Street and impacts to existing vehicular traffic.**	POOR

V. Good	Good	Fair	Poor	**Dedicated Busway on Lake Street – Overall Rating: POOR**	**RATING**
1. Consistency with regional and local plans • Mode characteristics are consistent with Metropolitan Council recommendations stated in the *Transportation Policy Plan (TPP)* and in the *Regional Transitway Guidelines (Guidelines)* • Mode characteristics are consistent with local and other plans and policies				• While the Metropolitan Council's *Regional Transitway Guidelines (Guidelines)* do not explicitly describe Dedicated Busways, they do include dedicated lanes as an option for Arterial BRT. BRT runningways provide transit with travel-time advantages under congested roadway conditions (Chpt 5, pg 41). • The *Guidelines* state that dedicated lanes can include: queue jump lanes at intersections and bus lanes running with or opposite to the general traffic direction. Lane dedication may be permanent (e.g., Minneapolis Marquette and 2nd Avenues), partial (e.g., shared with turning vehicles) or limited to certain hours of the day (e.g., peak hours). Within one-way streets, BRT operates best opposite the flow of general traffic. Dedicated lanes may be designated using pavement treatments such as striping, markings, color, and/or signage (Chpt 5, pg 41). • Dedicated Busway is consistent with market areas 1 and 2 (Chpt 2, pg 11). **CONCLUSION: GOOD. Dedicated Busway on Lake Street is consistent with the *Guidelines* for mode and market area.**	GOOD
2. Level of access provided to jobs and residents • Mode station spacing guidelines provide sufficient numbers of stations within the study area to adequately serve major destination and activity centers				• The *Guidelines* state stations should be sited to maximize convenience and minimize travel times for transitway passengers and vehicles under existing and planned future conditions (Chpt 3, pg 15). • Dedicated Busway on Lake Street has 9 potential station locations. • Potential station locations allow for service all corridor activity centers and major retail centers defined in the Minneapolis Comprehensive Plan (pg 1-43 and 1-44). • Dedicated Busway on Lake Street provides access to 18,000 residents and 12,000 jobs within ¼ mile of potential station locations and 47,000 residents and 27,000 jobs within ½ mile of potential station locations. **CONCLUSION: FAIR. Dedicated Busway on Lake Street has nine potential station locations providing access to 18,000 residents and 12,000 jobs within ¼ mile of potential station locations and 47,000 residents and 27,000 jobs within ½ mile of potential station locations**	FAIR
3. Ability to provide desired transit capacity and speed increases • Mode design characteristics allow for transit speed increases • Mode is appropriate scale for current ridership levels but also provides room for growth				• Dedicated Busway on Lake Street will increase transit speeds on Lake Street, because it will operate in an exclusive guideway. Route 21 average weekday in-service speed is approximately 6 mph from the Uptown Transit Center to the Midtown/Lake Street Hiawatha LRT station. Dedicated Busway speed on Lake Street would be dictated by posted speed limits. The posted speed limit on Lake Street west of Lake Calhoun Parkway is 35mph. East of Lake Calhoun Parkway the posted speed limit is 30 mph. • The many signalized intersections on Lake Street will slow travel speeds compared to operations in the Greenway. • Route 21 buses are often near or at capacity. Dedicated Busway on Lake Street will allow for increased capacities: A standard 40' Diesel Transit Bus can accommodate 39 seated passengers and a full standing load of 60 passengers. A hybrid articulated bus can accommodate 76 seated passengers and a full standing load of 114 passengers. **CONCLUSION: GOOD. Dedicated Busway on Lake Street would increase transit operating speeds and allow for an increase in ridership on Lake Street. However, Dedicated Busway on Lake Street speeds will still be affected by the many signalized intersections along Lake Street.**	GOOD
4. Compatibility with existing transportation modes and infrastructure • Mode integrates well with existing transportation infrastructure and systems				• Dedicated Busway on Lake Street would interface well with existing north-south bus service. • Dedicated Busway on Lake Street would interface well with Southwest and Hiawatha LRT infrastructure. • Dedicated Busway on Lake Street would significantly impact parking along Lake Street. • Dedicated Busway on Lake Street may reduce the number of signalized intersections, reducing the number of pedestrian crossings on Lake Street, greatly impacting pedestrian traffic on Lake Street. • Lake Street is not a bicycle corridor in the City of Minneapolis Bike Plan; use of the Midtown Greenway is encouraged. Dedicated Busway on Lake Street would not affect the Minneapolis bicycle network. • Dedicated Busway on Lake Street would have major impacts to vehicular traffic on Lake Street, travel lanes would be reduced to one in each direction and some signalized intersections may be removed, reducing the level of access on some cross streets. **CONCLUSION: POOR. Dedicated Busway on Lake Street would have major impacts on parking and vehicular and pedestrian traffic on Lake Street.**	POOR
5. Potential ROW impacts • Mode requires minimal right-of-way				• Dedicated Busway on Lake Street would likely require some ROW acquisition around 9 station locations. • Dedicated Busway on Lake Street would likely require some ROW at all intersections along the alignment to accommodate lanes for left turning movements and bus stop/right turn lanes. • The large footprint required for an exclusive guideway would require the conversion of existing vehicular ROW to an exclusive transit use for this alternative. • Additional ROW may be required for a turnaround point on the east end of the alignment. **CONCLUSION: POOR. Dedicated Busway on Lake would require a significant amount of ROW.**	POOR
6. Community and stakeholder sentiment Mode is compatible with the following five sentiments consistently expressed by the public and the project advisory and stakeholder committees: • Does not require reconstruction of Lake Street • Does not remove a travel lane or greatly impact parking on Lake Street • Minimizes impacts to Greenway historic and cultural resources • Minimizes impacts to Greenway bicycle and pedestrian facilities • Mode is felt to have high potential to spur economic development potential				• Dedicated Busway on Lake Street may require some reconstruction of some segments of Lake Street. • Dedicated Busway on Lake Street would remove a travel lane and/or a parking lane in each direction from Lake Street. • Dedicated Busway on Lake Street would not impact Greenway historic and cultural resources. • Dedicated Busway on Lake Street would not impact Greenway bicycle and pedestrian facilities. • Dedicated Busway on Lake Street is felt to have some potential to spur economic development **CONCLUSION: POOR. Dedicated Busway on Lake Street is inconsistent with broad community sentiment and specific comments made at stakeholder engagement sessions regarding reconstruction of Lake Street and impacts to existing vehicular traffic.**	POOR

V. Good	Good	Fair	Poor	**Single/Double Track Streetcar on the Greenway - Overall Rating: GOOD**	**RATING**
1. Consistency with regional and local plans. • Mode characteristics are consistent with Metropolitan Council recommendations stated in the *Transportation Policy Plan (TPP)* and in the *Regional Transitway Guidelines (Guidelines)* • Mode characteristics are consistent with local and other plans and policies				• *2030 Regional Transportation Policy Plan (TPP)* notes that Streetcars typically operate in mixed traffic and are subject to traffic congestion, although they may be given priority at intersections. They typically stop every few blocks and operate shorter distances than LRT with an emphasis on high frequency service with high accessibility (Chpt 7, pg 151). • The *TPP* notes: Streetcar service is particularly suitable for high density areas with short average passenger trip lengths and to attract infrequent transit users like shoppers or visitors (Chpt 7, pg 151). • Streetcar is not specifically described in the *Regional Transitway Guidelines (Guidelines)* but operating and design characteristics are consistent with market areas 1 and 2 (Chpt 2, pg 11). • Streetcar is consistent with a transportation use of the HCRRA-owned Greenway, as stipulated in state statute. • The *Minneapolis Streetcar Feasibility Study* calls for Streetcar on the Greenway as part of the long-term Streetcar network. **CONCLUSION: VERY GOOD. Streetcar on in the Greenway is consistent with the *TPP* and *Guidelines* with regard to mode and market, and is consistent with the *Minneapolis Streetcar Feasibility Study*.**	VERY GOOD
2. Level of access provided to jobs and residents • Mode station spacing guidelines provide sufficient numbers of stations within the study area to adequately serve major destination and activity centers				• The *Guidelines* state stations should be sited to maximize convenience and minimize travel times for transitway passengers and vehicles under existing and planned future conditions. (Chpt 3, pg 15) • Streetcar on the Greenway has nine preliminary station locations, based on a review of previous studies. • Greenway station locations allow for service to all corridor activity centers and major retail centers as defined in the *Minneapolis Plan for Sustainable Growth* (pg 1-43 and 1-44) • Streetcar on the Greenway provides access to 17,000 residents and 16,000 jobs within ¼ mile of potential station locations and 47,000 residents and 29,000 jobs within ½ mile of potential station locations. • Reduced visibility in the Greenway would make it more difficult for users to locate stations. • The vertical circulation required at station locations limits access points. **CONCLUSION: FAIR. Streetcar on the Greenway has nine potential station locations, access to 17,000 residents and 16,000 jobs within ¼ mile of potential station locations and 47,000 residents and 29,000 jobs within ½ mile of potential station locations. However, access would be limited by vertical circulation constraints.**	FAIR
3. Ability to provide desired transit capacity and speed increases • Mode design characteristics allow for transit speed increases • Mode is appropriate scale current ridership levels but also provides room for growth				• Streetcar on the Greenway will increase transit speeds in the corridor. Route 21 average weekday in-service speed is approximately 6 mph from the Uptown Transit Center to the Midtown/Lake Street Hiawatha LRT station. Streetcar on the Greenway, will mostly run on single track, and travel at approximately 18 mph. (Streetcar Feasibility Study pg 3-5). • There is no competing traffic and no signalized intersections (4 at-grade crossings would require safety improvements) to slow down speed of operations on the Greenway; however, operational capacity and flexibility is limited by single track operations (i.e. can't add more vehicles if needed). Additional passing sidings would be provided to accommodate proposed operations. • Route 21 buses are often near or at capacity. Streetcar on the Greenway allow for increased capacities: A standard 40' Diesel Transit Bus can accommodate 39 seated passengers and a full standing load of 60 passengers. Modern street car vehicles can accommodate a full standing load of 115 passengers. **CONCLUSION: GOOD. Streetcar on the Greenway would increase transit operating speeds and allow for an increase in ridership in the corridor. However, the use of a single track and passing sidings limit transit operations.**	GOOD
4. Compatibility with existing transportation modes and infrastructure • Mode integrates well with existing transportation infrastructure and systems				• With vertical connections on the existing bridges, Streetcar on the Greenway would interface well with existing north-south bus service. • Connecting to Southwest LRT is easier from the Greenway than from Lake Street due to the rail alignment generally at the same elevation. Transfers to Hiawatha LRT would use existing vertical connections and an at-grade platform adjacent to the LRT tracks/platform would be provided at the Southwest LRT connection. • Streetcar on the Greenway would be designed as a single track with passing sidings and thus have minimal impact on the existing bicycle and pedestrian facilities. However, existing bike and pedestrian facilities would likely require some modifications to accommodate a streetcar facility in the greenway. • At the SWLRT connection the existing trail crosses the existing rail bed (future streetcar guideway) – this is a potential safety concern that will need to be addressed as the design progresses forward. • Streetcar infrastructure (track and stations) would need to be designed to minimize impact to historic bridges, but there would likely be some impact to the structures. • Streetcar on the Greenway would require gate-arm crossings at at-grade intersections. **CONCLUSION: GOOD. Streetcar on the Greenway would integrate well with existing bus infrastructure (assuming vertical connections on existing bridges) and existing and planned LRT infrastructure. Also, Streetcar in the Greenway would have minimal impact on bicycle and pedestrian facilities in the Greenway.**	GOOD
5. Potential ROW impacts • Mode requires minimal right-of-way				• Streetcar on the Greenway will mostly run on single track and use passing sidings. • Streetcar would likely require some ROW for traction power substations (approximately one per mile) and overhead catenary poles. Streetcar traction power substations can range in size from 10 feet by 15 feet to 15 feet by 25 feet. • Streetcar on the Greenway would likely require some additional ROW, and would potentially impact an existing building, on the east end of the alignment where the guideway transitions out of the greenway. **CONCLUSION: GOOD. Streetcar on the Greenway would require some ROW.**	GOOD
6. Community and stakeholder sentiment Mode is compatible with the following five sentiments consistently expressed by the public and the project advisory and stakeholder committees: • Does not require reconstruction of Lake Street • Does not remove a travel lane or greatly impact parking on Lake Street • Minimizes impacts to Greenway historic and cultural resources • Minimizes impacts to Greenway bicycle and pedestrian facilities • Mode is felt to have high potential to spur economic development potential				• Streetcar on the Greenway would not require reconstruction of Lake Street. • Streetcar on the Greenway would not remove any travels lanes from Lake Street. • Streetcar on the Greenway would have minimal impact on Greenway historical and cultural resources, because of its single track design. However, vertical circulation and streetcar track impact existing facilities. • Streetcar on the Greenway would have minimal impact on bicycle and pedestrian facilities, because of its single track design, but would require some modifications in the trail alignment to accommodate the track infrastructure • Streetcar on the Greenway may minimally impact Greenway bicycle and pedestrian infrastructure near the Southwest LRT West Lake station to accommodate the trail near the station platforms. • Streetcar on the Greenway is felt to have high potential to spur economic development. **CONCLUSION: VERY GOOD. Streetcar on the Greenway is consistent with broad community sentiment and specific comments made at stakeholder engagement sessions. It is also felt to have high potential to spur economic development.**	VERY GOOD

V. Good	Good	Fair	Poor	**Full Double-Track LRT/Streetcar on the Greenway – Overall Rating: FAIR**	**RATING**
1. Consistency with regional and local plans • Mode characteristics are consistent with Metropolitan Council recommendations stated in the *Transportation Policy Plan (TPP)* and in the *Regional Transitway Guidelines (Guidelines)* • Mode characteristics are consistent with local and other plans and policies				• The *Regional Transitway Guidelines (Guidelines)* describe LRT runningways as exclusive, generally at-grade double track with crossovers and storage tracks provided as needed (Chpt 5, pg 151). • Ballasted track is lower cost and preferred, with embedded track used where tracks are within urban streets including at vehicle and/or pedestrian crossing locations (Regional Transitway Guidelines, Chpt 5, pg 151). Ballasted track could be used in the majority of the Greenway corridor, because the majority of the Greenway is grade separated. • LRT/STREETCAR is consistent with market areas 1 and 2 (Regional Transitway Guidelines, Chpt 2, pg 11). • LRT/STREETCAR is consistent with a transportation use of the HCRRA-owned Greenway, as stipulated in state statute. • The *Minneapolis Streetcar Feasibility Study* calls for Streetcar on the Greenway as part of the long-term Streetcar network. **CONCLUSION: GOOD. Full Double Track LRT/Streetcar on the Greenway is consistent with the *Guidelines* in regard to mode and market and is somewhat consistent with the *Minneapolis Streetcar Feasibility Study*.**	**GOOD**
2. Level of access provided to jobs and residents • Mode station spacing guidelines provide sufficient numbers of stations within the study area to adequately serve major destination and activity centers				• The *Guideline*s state stations should be sited to maximize convenience and minimize travel times for transitway passengers and vehicles under existing and planned future conditions. (Chpt 3, pg 15) • LRT/Streetcar on the Greenway has nine potential station locations. • Potential station locations allow for service to all corridor activity centers and major retail centers defined in the Minneapolis Comprehensive Plan (pg 1-43 and 1-44) • LRT/Streetcar on the Greenway provides access to 17,000 residents and 16,000 jobs within ¼ mile of potential station locations and 47,000 residents and 29,000 jobs within ½ mile of potential station locations. • Reduced visibility in the Greenway would make it more difficult for users to locate stations. • The vertical circulation required at station locations limits access points. **CONCLUSION: FAIR. Full Double Track LRT/Streetcar on the Greenway has nine potential station locations, providing access to 17,000 residents and 16,000 jobs within ¼ mile of potential station locations and 47,000 residents and 29,000 jobs within ½ mile of potential station locations. However, access would be limited by vertical circulation restraints.**	**FAIR**
3. Ability to provide desired transit capacity and speed increases • Mode design characteristics allow for transit speed increases • Mode is appropriate scale current ridership levels but also provides room for growth				• LRT/Streetcar on the Greenway will increase transit speeds in the corridor. Route 21 average weekday in-service speed is approximately 6 mph from the Uptown Transit Center to the Midtown/Lake Street Hiawatha LRT station. LRT generally runs at 40mph, but at slower speeds in denser areas. • There is no competing traffic and no signalized intersections (4 at-grade crossings would require safety improvements) to slow down speed of operations on the Greenway. • Route 21 buses are often near or at capacity. LRT/Streetcar will allow for increased capacities: A standard 40' Diesel Transit Bus can accommodate 39 seated passengers and a full standing load of 60 passengers. LRT vehicles can accommodate 68 seated passengers and a full standing load of 160 to 180 passengers per vehicle. **CONCLUSION: VERY GOOD. Full Double Track LRT/Streetcar on the Greenway would increase transit operating speeds and allow for an increase in ridership in the corridor.**	**VERY GOOD**
4. Compatibility with existing transportation modes and infrastructure. • Mode integrates well with existing transportation infrastructure and systems				• With a vertical connection on the existing bridges, LRT/Streetcar on the Greenway would interface well with existing north-south bus service. • Connecting to Southwest LRT is easier from the Greenway than from Lake Street due to the rail alignment generally at the same elevation. Transfers to Hiawatha LRT would use existing vertical connections and an at-grade platform adjacent to the LRT tracks/platform would be provided at the Southwest LRT connection. • LRT/Streetcar on the Greenway would likely impact existing bicycle and pedestrian facilities in the Greenway. • LRT/Streetcar on the Greenway would require gate-arm crossings at at-grade intersections. • Double track LRT/Streetcar on the Greenway would significantly impact bridges that span the Greenway, and would potentially impact the current alignment and width of the bike trail within the Greenway. • At the SWLRT connection the existing trail crosses the existing rail bed (future LRT guideway) – this is a potential safety concern that will need to be addressed as the design progresses forward. **CONCLUSION: POOR. Full Double Track LRT/Streetcar on the Greenway would likely impact existing bicycle and pedestrian facilities in the Greenway and would likely impact bridges that span the Greenway during construction.**	**POOR**
5. Potential ROW impacts • Mode requires minimal right-of-way				• LRT needs approximately 30 feet of right-of-way for an exclusive guideway to accommodate two tracks and approximately 40 feet of right-of-way at (split platform) stations. (CCLRT Design guidelines) The existing ROW is approximately 100' and includes the existing Midtown Greenway Trail. • LRT/Streetcar on the Greenway would likely require ROW for traction power substations (approximately per one mile). LRT traction power substations are approximately 20 feet by 40 feet. • LRT/Streetcar on the Greenway would likely require some additional ROW, and would potentially impact an existing building, at the east end of the corridor where the guideway transitions out of the greenway. **CONCLUSION: GOOD. Full Double Track LRT/Streetcar on the Greenway would require some ROW.**	**GOOD**
6. Community and stakeholder sentiment Mode is compatible with the following five sentiments consistently expressed by the public and the project advisory and stakeholder committees: • Does not require reconstruction of Lake Street • Does not remove a travel lane or greatly impact parking on Lake Street • Minimizes impacts to Greenway historic and cultural resources • Minimizes impacts to Greenway bicycle and pedestrian facilities • Mode is felt to have high potential to spur economic development potential				• LRT/Streetcar on the Greenway would not require full reconstruction of Lake Street. • LRT/Streetcar on the Greenway would not remove any travel or parking lanes from Lake Street, but during construction impacts to Midtown Greenway bridges would impact connections to Lake Street. • LRT/Streetcar on the Greenway would significantly impact Greenway historic and cultural resources, requiring reconstruction of existing bridges and construction of retaining walls to accommodate double track design. • LRT/Streetcar on the Greenway would significantly impact Greenway bicycle and pedestrian facilities. • LRT/Streetcar on the Greenway if felt to have high potential to spur economic development **CONCLUSION: POOR. Full Double Track LRT/Streetcar on the Greenway is inconsistent with broad community sentiment and specific comments made at stakeholder engagement sessions regarding impacts to Greenway resources.**	**POOR**

V. Good	Good	Fair	Poor	**Dedicated Busway on the Greenway – Overall Rating: FAIR**	**RATING**
1. Consistency with regional and local plans • Mode characteristics are consistent with Metropolitan Council recommendations stated in the *Transportation Policy Plan (TPP)* and in the *Regional Transitway Guidelines (Guidelines)* • Mode characteristics are consistent with local and other plans and policies				• While the Metropolitan Council's *Regional Transitway Guidelines (Guidelines)* do not explicitly describe Dedicated Busways, they do include dedicated lanes as an option for Arterial BRT (Chpt 5, pg 41). • The *Guidelines* do not rule out Dedicated Busway on a grade separated right-of-way like the Greenway, but describe Arterial BRT runningways as "usually within existing roadways" and "in dedicated lanes, shared-use lanes, managed lanes, or general purpose mixed traffic lanes with operational advantages,"(Chpt 5, pg 41). • Dedicated Busway is consistent with market areas 1 and 2. (Chpt 2, pg 11) • Dedicated Busway is consistent with a transportation use of the HCRRA-owned Greenway, as stipulated in state statute. **CONCLUSION: GOOD. Dedicated Busway on the Greenway is consistent with the *Guidelines* in regard to mode and market.**	GOOD
2. Level of access provided to jobs and residents • Mode station spacing guidelines provide sufficient numbers of stations within the study area to adequately serve major destination and activity centers				• The *Guideline*s state stations should be sited to maximize convenience and minimize travel times for transitway passengers and vehicles under existing and planned future conditions. (Chpt 3, pg 15) • Dedicated Busway on the Greenway has nine potential station locations. • Potential station locations allow for service to all corridor activity centers and major retail centers defined in the Minneapolis Comprehensive Plan (pg 1-43 and 1-44) • Dedicated Busway on the Greenway provides access to 17,000 residents and 16,000 jobs within ¼ mile of potential station locations and 47,000 residents and 29,000 jobs within ½ mile of potential station locations. • Reduced visibility in the Greenway would make it more difficult for users to locate stations. • The vertical circulation required at station locations limits access points. **CONCLUSION: FAIR. Dedicated Busway on the Greenway has nine potential station locations providing access to 17,000 residents and 16,000 jobs within ¼ mile of potential station locations and 47,000 residents and 29,000 jobs within ½ mile of potential station locations. However, access would be limited by vertical circulation restraints.**	FAIR
3. Ability to provide desired transit capacity and speed increases • Mode design characteristics allow for transit speed increases • Mode is appropriate scale for current ridership levels but also provides room for growth				• Dedicated Busway on the Greenway will increase transit speeds in the corridor. Route 21 average weekday in-service speed is approximately 6 mph from the Uptown Transit Center to the Midtown/Lake Street Hiawatha LRT station. The *Guidelines* state that Arterial BRT runningways should be full-sized lanes (10-12 feet) designed to support traffic traveling at posted speeds of less than 45 mph (Chpt 5, pg 41), therefore in a fully dedicated lane it can be assumed that buses could travel as fast as 45mph. However, as Dedicated Busway in the Greenway will be designed with a single lane to minimize impacts to Greenway resources, speeds will be dictated by single lane operational requirements. • There is no competing traffic and no signalized intersections (4 at-grade crossings would require safety improvements) to slow down speed of operations on the Greenway; however, operational capacity and flexibility is limited by single lane operations (i.e. can't add more vehicles if needed). Additional passing sidings would be provided to accommodate proposed operations. Route 21 buses are often near or at capacity. Dedicated Busway on the Greenway will allow for increased capacities: A standard 40' Diesel Transit Bus can accommodate 39 seated passengers and a full standing load of 60 passengers. A hybrid articulated bus can accommodate 76 seated passengers and a full standing load of 114 passengers. **CONCLUSION: GOOD. Dedicated Busway on the Greenway would increase transit operating speeds and allow for an increase in ridership in the corridor.**	GOOD
4. Compatibility with existing transportation modes and infrastructure • Mode integrates well with existing transportation infrastructure and systems				• With vertical connections on existing bridges, Dedicated Busway on the Greenway would interface well with existing north-south bus service. • Connecting to Southwest LRT and Hiawatha LRT is easier from the Greenway than from Lake Street due to the dedicated busway generally at the same elevation. Transfers to Hiawatha LRT would use existing vertical connections and an at-grade platform adjacent to the LRT tracks/platform would be provided at the Southwest LRT connection. • Dedicated Busway on the Greenway would be designed as a single lane with passing sidings and thus have minimal impact on the existing bicycle and pedestrian facilities. Existing bike and pedestrian facilities would likely require some modifications to accommodate a dedicated busway facility in the greenway. • At the SWLRT connection the existing trail crosses the existing rail bed (future dedicated busway) – this is a potential safety concern that will need to be addressed as the design progresses forward. **CONCLUSION: GOOD. Dedicated Busway on the Greenway would integrate well with existing bus and existing and planned LRT infrastructure and have minimal impacts on existing bicycle and pedestrian facilities in the Greenway.**	GOOD
5. Potential ROW impacts • Mode requires minimal right-of-way				• Dedicated Busway on the Greenway would require ROW to accommodate an exclusive guideway. Dedicated Busway will mostly run in a single lane and use passing sidings, where the Greenway accommodates a double lane configuration. • Dedicated Busway on the Greenway would likely require some ROW around nine station locations to accommodate the vertical circulation of passengers. • Dedicated Busway on the Greenway would likely require some ROW at both ends to accommodate bus turnarounds. • Dedicated Busway on the Greenway would likely require some additional ROW, and would potentially impact an existing building, on the east end of the alignment where the guideway transitions out of the greenway. **CONCLUSION: GOOD. Dedicated Busway in the Greenway would require some ROW.**	GOOD
6. Community and stakeholder sentiment Mode is compatible with the following five sentiments consistently expressed by the public and the project advisory and stakeholder committees: • Does not require reconstruction of Lake Street • Does not remove a travel lane or greatly impact parking on Lake Street • Minimizes impacts to Greenway historic and cultural resources • Minimizes impacts to Greenway bicycle and pedestrian facilities • Mode is felt to have high potential to spur economic development potential				• Dedicated Busway on the Greenway would not require full reconstruction of Lake Street. • Dedicated Busway on the Greenway would not remove any travel or parking lanes from Lake Street. • Dedicated Busway on the Greenway would have minimal impact on Greenway historic and cultural resources; however, vertical circulation may impact existing facilities. • Dedicated Busway on the Greenway would have minimal impact on Greenway bicycle and pedestrian facilities, because of its single lane design, but would require some modifications in the trail alignment to accommodate the fixed guideway infrastructure. • Dedicated Busway on the Greenway is felt to have some potential to spur economic development. **CONCLUSION: POOR. Dedicated Busway on the Greenway is inconsistent with broad community sentiment and specific comments made at stakeholder engagement sessions regarding economic development potential.**	POOR

	V. Good	Good	Fair	Poor	The Streetcar Loop - Overall Rating: POOR	RATING
1. Consistency with regional and local plans • Mode characteristics are consistent with Metropolitan Council recommendations stated in the *Transportation Policy Plan* and in the *Regional Transitway Guidelines* • Mode characteristics are consistent with local and other plans and policies					• *2030 Regional Transportation Policy Plan (TPP)* notes that Streetcars typically operate in mixed traffic and are subject to traffic congestion, although they may be given priority at intersections. They typically stop every few blocks and operate shorter distances than LRT with an emphasis on high frequency service with high accessibility (Chpt 7, pg 151). • The *TPP* notes: Streetcar service is particularly suitable for high density areas with short average passenger trip lengths and to attract infrequent transit users like shoppers or visitors (Chpt 7, pg 151). • Streetcar is not specifically described in the *Regional Transitway Guidelines (Guidelines)* but operating and design characteristics are consistent with market areas 1 and 2 (Chpt 2, pg 11). • Streetcar is consistent with a transportation use of the HCRRA-owned Greenway, as stipulated in state statute. • The *Minneapolis Streetcar Feasibility Study* favors Streetcar on the Greenway over Streetcar on Lake Street (pg 3-1). **CONCLUSION: GOOD. The Streetcar Loop is consistent with the *TPP* and with the *Guidelines* with regard to mode and market.**	GOOD
2. Level of access provided to jobs and residents • Mode station spacing guidelines provide sufficient numbers of stations within the study area to adequately serve major destination and activity centers					• The *Guidelines* state stations should be sited to maximize convenience and minimize travel times for transitway passengers and vehicles under existing and planned future conditions (Chpt 3, pg 15). • The Streetcar Loop has 17 potential station locations. • Lake Street streetcar station locations allow for service to all corridor activity centers and major retail centers as defined in the *Minneapolis Plan for Sustainable Growth* (pg 1-43 and 1-44). • Reduced visibility in the Greenway would make it more difficult for users to locate westbound stations. • The vertical circulation required at westbound station locations limits access points. • Alignments located on both Lake Street and the Midtown Greenway may be confusing and inconvenient to potential riders. A customer traveling on Lake Street would see the east bound streetcar, but it would be unclear how to travel west bound on the same streetcar service and vice versa on the Midtown Greenway. This may result in users inadvertently traveling around the entire loop to get to a destination, resulting in longer/inefficient travel. • The Streetcar Loop provides access to 17,000 residents and 14,000 jobs within ¼ mile of potential station locations and 47,000 residents and 28,000 jobs within ½ mile of potential station locations. **CONCLUSION: POOR. The Streetcar Loop has 17 potential station locations, providing access to 17,000 residents and 14,000 jobs within ¼ mile of potential station locations and 47,000 residents and 28,000 jobs within ½ mile of potential station locations. However, one-way loop operations may be confusing and inconvenient for users. Furthermore, westbound access would be limited by vertical circulation constraints.**	POOR
3. Ability to provide desired transit capacity and speed increases • Mode design characteristics allow for transit speed increases • Mode is appropriate scale current ridership levels but also provides room for growth					• The Streetcar Loop will increase transit speeds in the corridor. Route 21 average weekday in-service speed is approximately 6 mph from the Uptown Transit Center to the Midtown/Lake Street Hiawatha LRT station. Streetcar average speed in mixed traffic is 6-12 mph (ATCS Tech Memo 2, pg 6). • Operations in mixed traffic and the many signalized intersections on Lake Street will slow travel speeds compared to operations in the Greenway, because there is no competing traffic, no signalized intersections (4 at-grade crossings would require safety improvements) and fewer stations to slow down speed of operations. Operating the streetcar with this configuration would be difficult because one direction would always be faster than the other and could cause confusion/frustration to the customers using the transit service. • Reduced flexibility to only operate on either the Greenway or Lake Street if one of guideways is closed. Additional sidings would need to be provided within the Greenway to allow for some bi-directional service. • Route 21 buses are often near or at capacity. Streetcar will allow for increased capacities: A standard 40' Diesel Transit Bus can accommodate 39 seated passengers and a full standing load of 60 passengers. Modern street car vehicles can accommodate a full standing load of 115 passengers. **CONCLUSION: FAIR. The Streetcar Loop would increase transit operating speeds and allow for an increase in ridership in the corridor. However, streetcar speeds on Lake Street will still be affected by operations in mixed traffic and the many signalized intersections along Lake Street. This means the Streetcar Loop will have difficulties providing a consistent speed of service along both alignments.**	FAIR
4. Compatibility with existing transportation modes and infrastructure • Mode integrates well with existing transportation infrastructure and systems.					• With a vertical connection at westbound stations, The Streetcar Loop would interface well with existing north-south bus service. • The Streetcar Loop would connect to Southwest LRT via the Greenway, but would require additional track to connect back to Lake Street. Transfers to Hiawatha LRT would use existing vertical connections. • Streetcar parking impacts on Lake Street would likely be limited to station locations in the EB direction. • Streetcar would not have any major impacts to pedestrian conditions on Lake Street. • The Streetcar Loop would be designed as a single track and thus have minimal impact on the existing bicycle and pedestrian facilities. • The Streetcar Loop alternative would require that infrastructure is constructed on both Lake Street and the Midtown Greenway – requiring that two separate guideways are maintained for the life of the system. • Lake Street is not a bicycle corridor in the City of Minneapolis Bike Plan; use of the Midtown Greenway is encouraged. Streetcar on Lake Street would not affect the Minneapolis bicycle network. • The design of the western turnaround of the Streetcar Loop would likely impact vehicular traffic (potential on Chowen Avenue, W. 32nd Street, and Excelsior Boulevard) and modify the character of the existing street network that is located within a residential area and has narrow streets. • The design of the eastern turnaround of the Streetcar Loop would likely impact vehicular access to adjacent properties and require acquisition or reconfiguration of existing developments to provide a connection to the Greenway. • Streetcar on the Greenway would require gate-arm crossings at at-grade intersections. • At the SWLRT connection the existing trail crosses the existing rail bed (future streetcar guideway) – this is a potential safety concern that will need to be addressed as the design progresses forward. **CONCLUSION: FAIR. The Streetcar Loop would impact parking and vehicular traffic on Lake Street as well as vehicular traffic and the existing street network at turn around points. However, the Streetcar Loop would integrate well with existing bus infrastructure (assuming vertical connections on existing bridges that span the Greenway), and existing and planned LRT infrastructures. It would also have minimal impacts on bicycle and pedestrian facilities in the Greenway.**	FAIR
5. Potential ROW impacts • Mode requires minimal right-of-way					• The Streetcar Loop would likely require some ROW around 16 station locations on Lake Street and also ROW around 7 stations on the Greenway to accommodate the vertical circulation of passengers. • The Streetcar Loop would likely require some ROW for traction power substations (approximately one per mile) and overhead catenary poles. Streetcar traction power substations can range in size from 10 feet by 15 feet to 15 feet by 25 feet. • The Streetcar Loop would require difficult and costly connections at either end of the alignment to transition from Lake Street to the Midtown Greenway. • Streetcar on Lake Street would likely require ROW to provide a platform connection between the streetcar and Southwest LRT line. **CONCLUSION: POOR. The Streetcar Loop would require a significant amount of ROW.**	POOR
6. Community and stakeholder sentiment Mode is compatible with the following five sentiments consistently expressed by the public and the project advisory and stakeholder committees: • Does not require reconstruction of Lake Street • Does not remove a travel lane or greatly impact parking on Lake Street • Minimizes impacts to Greenway historic and cultural resources • Minimizes impacts to Greenway bicycle and pedestrian facilities • Mode is felt to have high potential to spur economic development potential					• The Streetcar Loop would require partial reconstruction of Lake Street. • The Streetcar Loop would not remove a travel lane from Lake Street. Parking impacts would be limited to station locations. • The Streetcar Loop would minimize impacts to Greenway historic and cultural resources • The Streetcar Loop may minimally impact Greenway bicycle and pedestrian infrastructure near the Southwest LRT West Lake station. • The Streetcar Loop is felt to have high potential to spur economic development. **CONCLUSION: FAIR. Streetcar on Lake Street is inconsistent with broad community sentiment and specific comments made at stakeholder engagement sessions regarding reconstruction of Lake Street. However, it would not impact Greenway resources or remove a travel lane on Lake Street and it is felt to have high potential to spur economic development.**	FAIR

	PRT on the Greenway	RATING
1. Consistency with regional and local plans • Mode characteristics are consistent with Metropolitan Council recommendations stated in the *Transportation Policy Plan* and in the *Regional Transitway Guidelines* • Mode characteristics are consistent with local and other plans and policies	• PRT was not considered in the Metropolitan Council's 2030 *Transportation Policy Plan (TPP),* because "it has not had a full-scale implementation that would provide its operating characteristics and allow for its analysis," (Chpt 7, pg 152). The *TPP* also requires that all Alternatives Analyses include both bus and rail options; the TPP does not require a PRT option (Chpt 7, pg 119). **CONCLUSION: POOR. PRT's exclusion from the *TPP* constitutes a fatal flaw for this analysis.**	FATAL FLAW
2. Level of access provided to jobs and residents • Mode station spacing guidelines provide sufficient numbers of stations within the study area to adequately serve major destination and activity centers	**N/A**	
3. Ability to provide desired transit capacity and speed increases • Mode design characteristics allow for transit speed increases • Mode is appropriate scale current ridership levels but also provides room for growth	**N/A**	
4. Compatibility with existing transportation modes and systems • Mode integrates well with existing transportation infrastructure	**N/A**	
5. Potential ROW impacts • Mode requires minimal right-of-way for construction	**N/A**	
6. Community and stakeholder sentiment Mode is compatible with the following five sentiments consistently expressed by the public and the project advisory and stakeholder committees: • Does not require reconstruction of Lake Street • Does not remove a travel lane or greatly impact parking on Lake Street • Does not impact Greenway historic and cultural resources • Does not impact Greenway bicycle and pedestrian facilities • Does not require large amounts of ROW	**N/A**	

	Commuter Rail on the Greenway	RATING
1. Consistency with regional and local plans • Mode characteristics are consistent with Metropolitan Council recommendations stated in the *Transportation Policy Plan* and in the *Regional Transitway Guidelines* • Mode characteristics are consistent with local and other plans and policies	• The Metropolitan Council's *Regional Transitway Guidelines (Guidelines)* state that non-downtown Commuter Rail stations are only appropriate in market areas 3, 4, and 5 (Chpt 2, pg 9). The entirety of the Midtown Corridor is in market areas 1 and 2 (2030 TPP, Chpt 7, pg 124). • The *Guidelines* call for Commuter Rail stations to be five or more miles apart, a distance greater than the entire length of the Midtown Corridor (Chpt 3, pg 23). • The *Guidelines* also call for Commuter Rail stations to be located seven miles or more from the Minneapolis and St. Paul Central Business Districts; the Midtown Corridor is less than three miles from downtown Minneapolis (Chpt 3, pg 19). • The *Guidelines* state that commuter coaches are used only for express trips with a one-way trip length greater than 15 miles and duration greater than 30 minutes (Chpt 6, pg 45). • The *Minneapolis Streetcar Feasibility Study* recommends streetcar in the Midtown trench with stations at West Lake, Hennepin, Lyndale, Nicollet, Chicago, Bloomington, and Lake Street (Chpt 3, pg 3-1). • The *Feasibility Study* Recommends headways of 7-15 minutes that can provide a meaningful connection between the Southwest and Hiawatha LRT lines; these headways are not consistent with Commuter Rail operations (Chpt 3, pg 3-8). • The ridership estimates developed for the *Minneapolis Streetcar Feasibility Study* estimate that approximately 50 percent of all trips would be internal to the Midtown Corridor; these trips would not be well served by a Commuter Rail with two stations (Chpt 3, pg 3-8). • City of Minneapolis *Midtown Greenway Land Use & Development Plan* states that "While the primary function of transit station areas is to provide universal access to and from the transit stop in the Greenway (whether light-rail transit, bus rapid transit or streetcar), they can also serve as expanded and enhanced public spaces associated with adjacent development," (Chpt VII, pg 49). Commuter Rail stations at infrequent spacing would not capitalize upon this vision fully. **CONCLUSION: POOR. Commuter Rail's inconsistency with the Regional Transitway Guidelines constitutes a fatal flaw for this analysis.**	FATAL FLAW
2. Level of access provided to jobs and residents • Mode station spacing guidelines provide sufficient numbers of stations within the study area to adequately serve major destination and activity centers	**N/A**	
3. Ability to provide desired transit capacity and speed increases • Mode design characteristics allow for transit speed increases • Mode is appropriate scale current ridership levels but also provides room for growth	**N/A**	
4. Compatibility with existing transportation modes and systems • Mode integrates well with existing transportation infrastructure	**N/A**	
5. Potential ROW impacts • Mode requires minimal right-of-way for construction	**N/A**	
6. Community and stakeholder sentiment Mode is compatible with the following five sentiments consistently expressed by the public and the project advisory and stakeholder committees: • Does not require reconstruction of Lake Street • Does not remove a travel lane or greatly impact parking on Lake Street • Does not impact Greenway historic and cultural resources • Does not impact Greenway bicycle and pedestrian facilities • Does not require large amounts of ROW	**N/A**	