

LRT-Done Right Response to Southwest Light Rail Final EIS

From FEIS Executive Summary p.2:

2. WHAT IS THE PURPOSE AND NEED FOR THE PROPOSED PROJECT?

The Purpose and Need provides the foundation for the proposed Project. The Purposes of the proposed Southwest LRT Project are summarized below:

- *Improve access and mobility to the jobs and activity centers in the Minneapolis central business district and the expanding southwest suburban employment centers*
- *Provide a competitive, cost-effective travel option to attract choice riders to the transit system, in an area of the region experiencing congested roadway connections between corridor cities and downtown Minneapolis*
- *Be part of an efficient system of integrated regional transit-ways serving the Twin Cities*

The Need for the Project is summarized as follows: Since the late 1980s, the Council has identified that the Southwest Corridor warrants a high level of transit investment to respond to increasing travel demand in this highly congested area of the region. This area of the Twin Cities experiences daily congestion on the roadway network, speed and use limitations within shoulder bus operations, and capacity constraints in downtown Minneapolis. Four primary factors make the Southwest LRT Project important for people who live and work in the southwest metropolitan area: (1) declining mobility; (2) limited competitive, reliable transit options for choice riders and people who rely on public transportation, including reverse-commute riders; (3) the need to maintain a balanced and economically competitive multimodal freight system; and (4) regional and local plans calling for investment in additional LRT projects in the region.

LRT Done Right Comment: Purpose and Need for SWLRT

“Since the late 1980s, the Council has identified that the Southwest Corridor warrants a high level of transit investment to respond to increasing travel demand in this highly congested area of the region.”

Purpose of Proposed Project: An Investment in Suburbanization

In line with the national post - war pattern of suburban growth, per Minnesota Compass, the core cities of Minneapolis and St. Paul experienced a 38% drop in population while the suburbs grew 380% from 1950 to 1980. From 1980 until very recently, the core cities’ population remained unchanged, while the exurban and suburban population rings rose by over 50 %. ¹ Eden Prairie, the SWLRT southwest terminus city located a 12 mile distance from Minneapolis, provides an example of this

¹ Rebecca Sohmer, David Jackson, Bruce Katz, Amy Liu and David Warren, “Mind the Gap: Reducing Disparities to Improve Regional Competitiveness in the Twin Cities,” (Brookings Metropolitan Policy Program) 2005, p.4.

suburban growth with its population rising 300% from 16,000 to 50,000 from 1980 to 2000 (SWLRT DEIS, 2012) and another 12,000 by 2013.

The Civil Rights Project at the Harvard Center for Community & Change described post-war suburbanization in *Moving to Equity* and linked income inequality and racial segregation to growth and development of suburbs located increasingly farther away from central cities.² It was in this context of ongoing suburbanization in the late 1980's that the Met Council chose the Southwest Corridor as warranting a "high level of transit investment."

At the time that planning for SWLRT began in earnest in the mid-2000's, the Brookings Institution Metropolitan Policy Program issued *Mind the Gap: Reducing Disparities to Improve Regional Competitiveness in the Twin Cities*. The report found that while the Twin Cities has many assets that make it strong and competitive, "Underneath these broad regional successes are some disturbing social and economic disparities, demonstrating that progress is not widely shared."³ The report identified and called for the reduction of three sets of "gaps" or areas of disparity -- among racial and ethnic groups, among different income groups, and between the central cities and the suburbs. The three gaps showed that the region's prosperity does not benefit all residents or communities.⁴

These areas of disparity are interrelated and intersect in the gap between central cities and suburbs:

Place disparities, or differences between cities and suburbs (and among suburbs), result from uneven development that has led to concentrations of poverty in the regional core and concentrations of relative wealth in the outer suburbs.⁵

The two central cities have markedly different demographic patterns than the rest of the metropolitan area. While some older, inner ring suburbs are beginning to resemble the central cities in some respects, the region still displays a fairly traditional pattern of poorer, more diverse central cities surrounded by wealthier, whiter suburbs.⁶

As SWLRT planning unfolded in 2005, the *Mind the Gap* study found:

Concentrated poverty—neighborhoods where the poverty rates are 40 percent or higher—is solely found in Minneapolis and St. Paul. In other words, there are no extremely poor suburban neighborhoods, only extremely poor central city neighborhoods. **According to a**

² Sanchez, Stolz, Ma, "Moving to Equity" (The Civil Rights Project at the Harvard Center for Community & Change), 2003, p.17.

³ Sohmer, Jackson, Katz, Lui, and Warren, "Mind the Gap," p.3

⁴ Ibid, p.3,4

⁵ Ibid, p.9

⁶ Ibid, p.20

study done by the DC Fiscal Policy Institute, the Twin Cities has the second starkest differential between city poverty rates and suburban poverty rates in the country. The central cities' poverty rate is 4.5 times higher than the suburban poverty rate, which is a higher ratio than the Baltimore, Detroit, Cleveland, and Philadelphia metro areas (emphasis added).⁷

SWLRT as an answer to “increasing travel demand in this highly congested area of the region” was conceived and planned in this stark context of Twin Cities’ metro suburban and urban disparity.

- **LRTDR rejects the following FEIS justification of SWLRT:** This area of the Twin Cities experiences daily congestion on the roadway network. Provide a travel option to attract choice riders to the transit system, in an area of the region experiencing congested roadway connections between corridor cities and downtown Minneapolis (FEIS Executive Summary, p.2).
- **LRTDR Response: The SWLRT project enacts the stark metro place disparity by prioritizing the most costly public works project in state history for the purpose of providing “a travel option to attract choice riders” who have caused the congestion produced by southwestern suburbanization.**

Furthermore, the move to affluent and distant suburbs has been accompanied by an unacceptable and extraordinarily low carpool rate during commute hours between the Southwest suburbs and Minneapolis. An efficient use of the existing transit and transportation resources must be required of “this area of the Twin Cities.”

The FEIS ridership table 4.1-2 on p. 4-18 shows that SWLRT is expected to take only 6500 vehicles off the road by 2040. Attaining a 9% carpool rate among southwest metro drivers over the time period of the SWLRT planners' time horizon of 25 years – would be only 520 new carpoolers per year – and would achieve the same congestion relief at very little, if any, cost. A 9 - 10% carpool rate is typical for other metropolitan areas. This area of the Twin Cities and the entire metro should be expected to match what is achieved in other metropolitan areas before receiving an extraordinarily high and disproportionate level of transit investment.

SWLRT Planning: Performance of Place Disparity

SWLRT planning history can be seen as a repeated performance of the stark differential between city and suburb documented in *Mind the Gap*. A representative enactment is the “diagonal route,” described in the FEIS as a positive characteristic of SWLRT. Yet, the diagonal route is not equally shared by city and suburb. On the one hand, the diagonal route was insisted on for Minneapolis by SWLRT planners as the fastest way into downtown jobs for suburban commuters, though key characteristics of that route were that it missed urban density, insulated suburban riders from major

⁷ Ibid, p.21

Minneapolis commercial areas and neighborhoods, and limited the opportunity for urban development.

On the other hand, the diagonal route was abandoned and substantively changed at the southwest suburban end to serve business needs there:

Early Southwest LRT plans [for Eden Prairie and Minnetonka] had the train remaining to the north on the existing railroad right-of-way it will use for most of its route from Minneapolis. “We pushed hard to get it down into our core jobs and commercial districts,” says Mayor Tyra-Lukens.⁸

In 2007, Minnetonka and Eden Prairie made it clear that routing SWLRT through the Hennepin County-owned recreational trails in their communities, comparable to the Kenilworth Trail in Minneapolis, would limit development and economic opportunities and be detrimental to their cities’ quality of life. Eden Prairie and Minnetonka were not allocated mitigation of a poor route. They “pushed hard” and got a better, more valuable alignment for their suburban cities.

Eden Prairie Mayor Nancy Tyra-Lukens described the purpose and need for the SWLRT and its alignment in Eden Prairie as follows:

“One of the largest software companies in the Twin Cities, HelpSystems, just told me it can’t fill jobs out here.

We don’t want these businesses moving. It’s a competitiveness issue for us.”⁹

According to Mayor Tyra-Lukens, the SWLRT reroute out of the HCRRA trail was needed *to keep* businesses in Eden Prairie. **This suburban economic strategy is directly contrary to the FEIS statement of Purpose and Need to “improve access and mobility to ... the expanding southwest suburban employment centers.”**

SWLRT as a strategy to *keep or attract* businesses to the southwest suburbs, *rather than to provide needed transit* to “expanding southwest suburban employment centers,” is reported in a recent Mpls/St.Paul Business Journal article (3/18/16), ***The Great Minneapolis Migration: As employers head downtown, suburbs play catch-up to add amenities to hold onto tenants.*** The article reported that over the past two years, more than 15 companies have announced relocations to downtown Minneapolis. A consequence of the shift by businesses from suburban to downtown office locations is a drop in demand for suburban office space. An office broker specializing in the southwest suburbs at Cushman & Wakefield/NorthMarq predicts the drop in demand for southwest suburban office space will improve with the proposed SWLRT line. He is cited as expecting “a bump in suburban office demand as light rail transit along the southwest corridor gets closer to opening in 2020,” echoing

⁸ Adam Platt, “Transit Showdown in Southwest Metro,” (Twin Cities Business) October 30 2015).

⁹ Ibid

Eden Prairie Mayor Tyra-Lukens' description of the need for SWLRT as "a competitiveness issue for us."

- **LRTDR rejects the FEIS depiction of SWLRT Purpose and Need:** "to improve access and mobility to ... expanding southwest suburban employment centers (FEIS Executive Summary p.2)."
- **SWLRT as routed is a public investment in an amenity for the competitive position of private southwest suburban business.** It is desired by Southwest suburbs and implemented as a strategy *to retain* their employment centers, *not a public transit need* to access expanding southwest suburban employment centers.

Thus, the proposed SWLRT route hooks at its southwest suburban end rather than continuing the diagonal route along the HCRRA-owned right-of-way. Prior to the route change in Eden Prairie, there was a citizens' activist group there, Trails not Rails.¹⁰ Citizen activism occurred early in SWLRT planning to preserve areas near the HCRRA Trail in Eden Prairie.¹¹ The Trail is now a valuable recreational greenspace surrounded by a golf course.

Therefore, in addition to the reroute "pushed for" and achieved as a strategy to enhance its business competitiveness, Eden Prairie has obtained an increase in its recreational green space with the HCRRA - purchased rail corridor. Eden Prairie and Minnetonka have roughly 2 to 3 times more open space acreage per person than Minneapolis. Hence, southwest suburban SWLRT routing enacts and worsens another element of urban and suburban disparity, which would be repeated by the adverse and degrading impact of SWLRT on the Minneapolis Chain of Lakes. Eden Prairie was publicized in Money Magazine's "Best Places to Live" in September 2012. The magazine promoted the high quality of life in the suburb, listing \$116,000 as the median household income and a coming "commuter rail project" as a reason to live there.

The *Mind the Gap* study strongly argued for reducing the "stark differential" of place and poverty between metro suburbs and the core cities on the bases of social equity and regional economic growth.¹² Nonetheless, due to planners' priority to improve the alignment in Eden Prairie and Minnetonka, \$300 million in project costs were added early in the planning process, thereby increasing the overall SWLRT project budget from about \$900 million to about \$1.2 billion. As described in an article from 2009:

Effectively, this is where Minneapolis finds itself, and the region is coming dangerously close to eliminating its best route option because of cost-effectiveness concerns. Of the three routes being considered for the Southwest Transitway's alignment, one (#1A) has been

¹⁰ http://fbiw.net/old_site/Trail/LRTGuide.pdf p.17

¹¹ http://fbiw.net/old_site/News/

¹² Sohmer, Jackson, Katz, Lui, and Warren, "Mind the Gap," p.26

dismissed by suburban officials because it won't serve the city of Eden Prairie as effectively as the others, **even though it would be cheaper to build** (emphasis added).¹³

The 30% suburban budget increase occurred at the beginning of planning and caused enormous and unrelenting pressure thereafter to keep costs down for the Minneapolis portion of the SWLRT alignment. The improvement in the southwest suburban alignment thus may be said to have played a causal role in determining a poor route in the city and therefore the metro as a whole.

The new suburban alignment out of the HCRRA Trail in Eden Prairie and Minnetonka also meant SWLRT must be built through wetlands there. The additional financial (as distinguished from environmental) cost of doing so was not made public until the spring of 2015 and then portrayed as part of \$300 million of engineering "surprises" to SWLRT planners.¹⁴ Significantly, the Met Council will not break down the most recent additional \$300 million project costs by municipality. Therefore, information is not available regarding the total public transit dollar investment for Eden Prairie's and Minnetonka's SWLRT strategy as "a competitiveness issue for us." However, we do know that the environmental cost to wetlands is steep, and in fact, cannot be mitigated. As stated in the FEIS, the Met Council must purchase wetland mitigation bank credits to offset the damage caused by the route.

Minneapolis Disenfranchised from Alignment Selection: No SWLRT in Urban Density

Former Minneapolis Mayor R.T. Rybak's office supported an alignment that would serve Uptown and dense neighborhoods to the east in South Minneapolis. After the first \$300 million was prioritized and frontloaded for the southwest suburban alignment, SWLRT planners decided the financial leeway to consider routing through urban density was gone, and the potential cost of providing transit for the urban core was seen as unaffordable as well as unnecessary to obtain federal funds. In addition to the pressure created by the suburban routing to keep costs down in Minneapolis, as the City of Minneapolis states in Resolution 2014R-362 and included in its FEIS response:

The decision about where to route the Southwest LRT line was made when the Bush-era transit funding formula was still in effect. That formula said that only new transit riders should count. If you were already a transit rider, you didn't count towards projected ridership. That formula was inherently biased against urban neighborhoods where lots of people already ride transit. That formula was inherently favorable to suburban areas where it is easier to find potential riders not currently taking transit. The Bush-era formula created an incentive for transit planners and policy-makers to avoid, rather than serve, dense neighborhoods where many people already take transit.

¹³ <http://www.thetransportpolitic.com/2009/08/11/southwest-minneapolis-transit-route-selection-process-may-rule-out-light-rail-to-uptown/>

¹⁴ <http://www.mprnews.org/story/2015/06/22/video-choo-choo-bob-explains-southwest-light-rails-newest-woes>

The routing of Southwest LRT was not designed around serving disadvantaged populations or serving the greatest number of Minneapolis residents. It was designed to achieve the fastest route between suburban and downtown destinations (emphasis added).

Mayor R.T. Rybak said of the route, “The history on this is clear. The county pushed the idea of the Kenilworth Corridor over our objections.”¹⁵ Minneapolis did not want the Kenilworth alignment, but agreed to it on the condition and promise that the freight rail that had been temporarily placed there would be moved. LRTDR endorses the City of Minneapolis FEIS Staff comment on regarding SWLRT project history:

The development of the project including route selection differs significantly from the recounting outlined in the FEIS ...

There were serious mistakes made during the development of this project: failing to secure a binding agreement with St Louis Park, failing to secure a binding agreement with the railroads, failing to follow up with MNDOT to ensure they were following the law requiring a binding agreement before disbursing funds for the Golden Auto site, failing to design a new version of a freight reroute to reflect changes in industry practice, failing to hire an independent engineering firm like TranSystems years earlier, and when a new viable reroute was finally identified, an unwillingness to bring that plan to the STB for approval.

Regarding the failure of SWLRT planning in Minneapolis, Gov. Mark Dayton commented, “While Hennepin County has been blamed for not resolving the potential conflict between light-rail and freight trains, it could easily have been foreseen by Met Council staff, the planners and the like, at least five years if not 10 years ahead of now.”¹⁶ The poor performance of SWLRT planners and poor routing has not lessened Gov. Dayton’s strong advocacy for the project.

This failure in planning meant that Minneapolis was disenfranchised from the alignment selection process as the unviable but presumably cheaper Kenilworth option distorted and eclipsed real planning and options. The routes through density favored by the City could not be and were not fairly or accurately evaluated.

- **LRTDR rejects the FEIS statement that SWLRT fulfills the Purpose and Need:** Be part of an efficient system of integrated regional transit-ways serving the Twin Cities (FEIS Executive Summary, p.2).
- **SWLRT will not improve the efficiency of regional transit-ways serving the Twin Cities.** FEIS ridership data on table 4.1-2 on p. 4-18 shows Total System-wide Transit Trips will increase by a barely measurable 200 trips by 2040.

¹⁵ MinnPost 10/15/2013

¹⁶ Star & Tribune, April 9, 2014

- **The lack of improvement in efficiency of the regional transit-way is reflected in the outcome that SWLRT as routed will actually *increase* GHG.** FEIS Environmental Analysis p. 3-204 concludes: The Project operation will increase the Green House Gas emission in the Twin Cities area by approximately 2,000 metric tons per year in 2040 compared to No Build Alternative.

When Mayor Hodges voted against the co-location plan on April 2, 2014, she underscored the preemption of Minneapolis' participation in alignment selection: "This would not be the route that Minneapolis would have supported for light rail. We would've had a clarion call ... we need to find another alternative here because our support is predicated on the reroute of freight."¹⁷

Enactment of suburban and urban place disparity continued in the SWLRT planning process. Though a safe engineering method to reroute freight was established by TranSystem, all suburban cities on the Corridor Management Committee (CMC) voted instead in favor of retaining co-location in the Kenilworth Corridor in Minneapolis. (Though Edina would have no SWLRT stations within its borders, it is included on the CMC and has a vote equal to Minneapolis.) The suburban cities without exception prioritized their own municipalities and unanimously overrode past promises and "fundamental fairness" for Minneapolis. The City of Minneapolis FEIS Staff comment recounts:

Of the government agencies represented at the CMC, only the City of Minneapolis, was willing to re-route freight out of the corridor by going to the STB. Mayor Hodges was outvoted at the CMC by all the cities along the corridor as well as Hennepin County and Metropolitan Council representatives. Opponents of rerouting the freight expressed concern that opposition to the freight re-route by TC&W at the STB would result in unacceptable delays, even if it were ultimately approved.

Since the TranSystems report is still unrefuted by any credible source, the City does not concede that Freight could not be re-routed safely from the corridor.

The deep tunnel option to retain the freight was estimated by SWLRT planners at \$250-300 million, an amount that had been and is still viewed as credible and acceptable by the same planners for the reroute from the HCRRA Trail into the business district in Eden Prairie and Minnetonka. With the suburban spending prioritized and growing, great pressure continued on Minneapolis by suburban dominated planners to keep costs down. Both a route through urban density that would provide transit and support development or the deep tunnel to protect the City's signature and economically invaluable Chain of Lakes were rejected on the basis of cost.

The northern portion of the shallow cut and cover tunnel was also eliminated in a closed-door meeting between Met Council Chair Adam Duininck and Mayor Betsy Hodges. In addition to the

¹⁷ MinnPost, Betsy Hodges, "LRT remarks: 'This is about a fundamental failure of fairness,'" 4/3/14

realistic expectation of incompetence and betrayal, there are many practical reasons to conclude that the improvised engineering of the shallow tunnel plan will not be feasible and the southern shallow tunnel will never be built. Time does not permit discussion of the many serious issues related to the tunnel.

Nonetheless, co-locating freight operations through much of the Kenilworth Corridor in addition to building a southern cut-and-cover shallow tunnel added a significant \$130- 160 million to the SWLRT budget, making the new, co-locating version of the LPA almost as expensive as the options favored by the City through urban density. Nevertheless, the decision on the part of the Met Council and suburban members of the CMC that any delay to revisit the SWLRT alignment in Minneapolis or reroute the freight was unacceptable resulted in their choice of a costly but still unacceptable plan for a failed LPA.

Though a pivotal actor in bringing about the LPA with co-location in the Kenilworth, Met Council Chair Adam Duinck stated two months ago that both SWLRT and Bottineau "didn't go down perfect routes, in my opinion, through the city of Minneapolis."¹⁸

In addition to extremely low urban utility and the danger of building and co-locating electrified LRT in proximity to unit trains carrying highly flammable ethanol in the Kenilworth Corridor, the Minneapolis Parks and Recreation Board strongly objected to the impact of SWLRT on the Chain of Lakes and Grand Rounds. In an attempt to preserve rare and historically significant urban parkland, the MPRB initiated a legal challenge to the Met Council's plan for crossing the historic Lagoon that created the Chain of Lakes, the body of water whose completion was celebrated with a boating trip by Theodore Wirth himself. The Park Board challenge was ended not based on legal standing, environmental or urban planning goals, but due to steps taken by Gov. Dayton to defund \$3 million from the Minneapolis Park System unless their legal challenge was dropped.

In a thoroughly consistent performance of SWLRT planning as suburban/urban place disparity – as the Minneapolis Park Board, Met Council, and southwest suburbs well knew – SWLRT will adversely impact the Kenilworth Lagoon and the Grand Rounds in the City of Minneapolis.

Section 1.5, Purpose and Need: Limited Competitive, Reliable Transit Options for Choice Riders and Transit Dependent Populations including Reverse Commute Riders

This section includes discussion of characteristics of bus operations such as orientation toward peak direction travel and frequent stops that result in longer travel times, apparently as a justification for the expenditure of \$1.8 billion for SWLRT. However, Table 1.5-1 appears to considerably overstate transit times from Eden Prairie to Minneapolis: it should reflect the SouthWest Transit (SWT) express *bus* service offering rush-hour travel time of just 23 to 25 minutes from Eden Prairie to its first stop in

¹⁸ Star&Tribune, 4/19/16

the center of the CBD at 12th & Hennepin (and 4 minutes more to the next CBD stop at 2nd Avenue and 11th St.). It runs every 5 minutes at peak rush hour, compared to every 10 minutes planned for SWLRT. Furthermore, if there is demand for reverse-commute service then SW Transit could easily and efficiently provide it. This bus system, extremely popular in the suburbs, has found demand for only 7 reverse-commute trips from the Minneapolis CBD to Eden Prairie each morning.

As Metro Transit knows, because it just opened the Rapid Bus A line in St. Paul and has plans for other similar lines, an alternative to expensive fixed-rail construction is limited-stop rapid bus service, which addresses many of the shortcomings of bus service noted in the FEIS, for a fraction of the cost of SWLRT, enabling a more equitable and effective use of transit funds. The cost of constructing the A line was merely \$27 million.

This section also states that the people most affected by limited bus service are those who don't own a car. It states that [only] 14% of the households in the major activity centers along the line do not own a vehicle and then admits that Minneapolis drives up the percentage of households without a vehicle. Ironically, SWLRT would not serve the transit dependent populations of Minneapolis, as it travels into the city through sparsely populated areas – primarily park-type land (which has limited transit-oriented development potential.) This section mentions Hopkins as having a “slightly” higher average of households without a car: Hopkins has a relatively small population, so the number of households without a car is only 1,248 (Table 1.5-2). Surely this cannot be sufficient justification for the need for this Project. This section also points to the senior population in the corridor as a justification for the project. Not all seniors are transit dependent. Does the FEIS quantify the numbers of seniors who would use SWLRT, and where they would be going? Historically the vast majority of the projected ridership of SWLRT has been “home-based work” trips.

This section cites the Scoping Report as supporting the need for this Project. That report was done in 2009 based on a 2007 Alternatives Analysis. These reports should be redone to reflect dramatic changes in the Project, including co-location of freight rail and light rail in the Kenilworth Corridor, requiring the addition of a shallow tunnel, other routing changes in the western portion of the route, and the discovery of unfavorable soil conditions. By adding freight rail to the project after the LRT alignment was selected, the Met Council improperly limited the study and choice of reasonable SWLRT routing alternatives. Such a fundamental change and substantial cost increase should warrant new review of routing alternatives.

The Project rationale of “needing to maintain a multi-modal transportation system” – i.e. including freight – was suddenly introduced with the publication of the SDEIS. This is circular reasoning: now that freight is not being relocated, leaving it in place and spending hundreds of millions along the line to improve it, is now a purpose of the project? The last in the list of four reasons given that this Project is needed is that regional/local plans call for investment in additional light rail transit projects in the region. Again, circular reasoning: the fact that the Met Council is planning for this project cannot be used, at the same time, as justification for need.

It is not even until page 4-19 that ridership is mentioned, and even then in a circumspect way. It appears that the number of rides will increase by 32,600 in 2040 for the Green line if the Project is built, and 33,600 for total rail system. This appears to be lower than previous projections of over 34,000 rides for SWLRT: why is projected ridership less than previous estimates? Also, most

importantly, the forecast is that only 13,015 for 2040 of those rides are new to transit, so assuming round trips, only 6,507.5 new transit users. This is too low to justify the expenditure of \$1.8 billion.

Chapter 3: Environmental Analysis

Section 3.3: Neighborhood and Community

Table 3.3-16 (Impacts to Community Facilities, Community Character, and Community Cohesion) states:

“New physical barriers: Light rail alignment will be located adjacent to the existing Kenilworth Corridor, which is an active freight rail corridor (refer to Exhibit 2.1-5). All existing sidewalk, trail, and roadway crossings of the Kenilworth Corridor will be maintained, and, because the existing freight rail alignment is currently a physical barrier, the Project will not create a new physical barrier.” Table 3.3-16, p. 3-84

As stated on page 3-83 of the FEIS, Visual change in the Kenilworth Corridor from the Project will include “substantial level of impact on multiple representative viewpoints within this area.

Visual impacts associated with the Project include those related to vegetation removal, relocation of the existing freight rail tracks, relocation of trails, and the addition of an LRT station. The crossing of the Kenilworth Channel will require construction of new bridge structures. In the transition areas between the at-grade and below-grade segments, there will be substantial visual impacts because of the extensive tree clearing required to accommodate the Project and the visual dominance of the trenches and the concrete retaining walls they will require.”

Other sections describe the crash walls that will be constructed whenever the separation between freight rail and light rail is too narrow to be safe.

In light of these impacts, it is absurd to conclude that the Project will not create a new physical barrier, especially in comparison to slow-moving, infrequent freight trains that travel there now, or adversely affect the visual quality of the neighborhood.

The FEIS claims there will be no changes to vehicle parking or adverse effects on traffic in the vicinity of the 21st Street station, including to the historic properties in the area. This is absurd, given that the Met Council is projecting 2,000 people getting on and off the train at that station.

Section 3.11 Air Quality and Greenhouse Gases

3.11.3.3 Greenhouse Gas

Implicit in public support for LRT as a general transit concept is significant concern regarding climate change. Green House Gas (GHG) is linked to climate change, and human-made GHG is linked to

several different sources, one of which is carbon based fuel. Gasoline fueled vehicles emit *tailpipe* CO₂, a GHG. Light rail, as well as electric cars, trucks, subways, or buses, do not emit *tailpipe* CO₂.

However, LRT, as well as electric cars, subways, or buses, use electricity that produces CO₂ as part of its generation process, unless it is produced via solar, wind, or water, etc. That is, CO₂ is associated with electricity generation (“upstream energy emissions of raw materials energy consumption” p. 3-205 FEIS) and depends upon the fuel used to create the electricity. In Minnesota, 42% -50% of XCEL electricity is produced from coal, and the majority of the remainder is produced by nuclear power plants and from natural gas piped in from Colorado, obtained by fracking.

Energy sources vary in their political support by affiliated businesses. The political support for ethanol in Minnesota is high – by state law gasoline sold within the state must be 10% ethanol. Ethanol comes from corn, a crop grown in Minnesota and other neighboring Midwestern states. Major ethanol producers have production plants located by rural railways in, for example, South Dakota, and from there ethanol is shipped by rail to Minnesota.

Ethanol, a Class 3 liquid, is as volatile as oil. Within environmental circles, the actual benefit of ethanol, though deemed a renewable energy source, is highly controversial due to energy costs and GHG involved in massive corn production for ethanol, as well as the utilization of land available for plant based food crops to raise corn for ethanol. Nonetheless, the 10% ethanol gasoline requirement is Minnesota state law. At the same time, state support for solar energy and independent solar energy production has been inconsistent. Conflict has arisen between XCEL Energy and independent solar producers. From an environmental point of view, overall reduction in demand is indicated for both electricity and carbon based fuels.

The above is simply to review that concern for climate change can be and has been misused on a large scale to support a variety of related businesses, while not positively impacting GHG. It is unfortunate that the same process of erroneously mobilizing public concern regarding GHG is involved to create support for some LRT projects. That is, support is elicited from the public on the basis of concerns about climate change, though the LRT project increases or provides little to no benefit for precisely that metric.

SWLRT is an example of an LRT project that increases, rather than reduces, GHG. The FEIS states:

The Project operation will increase the GHG emission in the Twin Cities area by approximately 2,000 metric tons per year in 2040, compared to No Build alternative (FEIS, p 3-204).

The fact of an increase in GHG, if SWLRT is constructed, is minimized and obscured in the FEIS with wordy sentences and references to the RTP and TIP. The public revelation that SWLRT, if built, would

increase GHG is buried in the 17,000 page document along with the information that the increase in GHG due to SWLRT is [already] included in regional plans:

“If amortized over the life of the Project, the GHG emission from this project is minimal. In addition, the Project is included in the regional RTP and TIP, which consider climate change mitigation, adaptation and resilience for sustainable development of the region. Therefore, GHG emissions from the proposed Project will not hinder the region’s emission reduction efforts.” (P. 3-205).

Though from the point of view of the Metropolitan Council’s FEIS, SWLRT will not “hinder” the region’s emission reduction efforts, in fact, if built, SWLRT will add to the GHG that requires those efforts. **Without SWLRT, that is the No Build condition, the total annual metric tons of GHG will be 2000 tons less than under the Build condition. As such, under No Build, the benefits of state GHG efforts would be increased.** Further, the cited “adaptation and resilience for sustainable development” considered in the regional RTP, is an extremely vague and elastic phrase, capable of interpretation as desired by a variety of interests not focused on providing the best environmental, equitable, or cost-effective transit. These various other interests seem already to have been over represented in the planning of SWLRT.

In terms of GHG, it will be a net benefit to the State of Minnesota not to build SWLRT (FEIS Table 3.11-3). That is, per the FEIS, Southwest LRT adds to the annual total of GHG.

Put another way, even with the projected, very minimal 6500 cars off the road noted in the FEIS, in 2040, there would be a net GREATER increase of GHG annually with SWLRT than if the 6500 cars stayed on the road.

From the point of view of GHG, it is better not to build SWLRT and to shift to less GHG intensive modes of transportation. Though not uniformly pursued by transportation planners within the Metro, car pools lanes are an additional means to reduce single occupancy vehicle usage, and are utilized on those freeways that have them. Carpooling means more than one passenger per vehicle and is a more GHG efficient use of vehicle transport than single passenger vehicle use. It is noteworthy given the expressed dissatisfaction with congestion and the commute time periods in the Southwest suburbs, also repeated in the FEIS Purpose and Need section and identified since the late 1980’s, that carpooling is not more in evidence, even without a car pool lane, since it is both environmentally beneficial and shares the burden of both driving and parking among driver and passenger in each car.

Tree Removal and GHG

“The proposed project construction **may** require removal of a limited number of trees and disturb some vegetated areas along the rail corridor. Trees and vegetation sequester CO₂ through the

process of photosynthesis and store the gas as carbon in their biomass. When trees and vegetation are removed, some of their stored carbon may be released as CO₂ into the atmosphere, although the quantity and rate of CO₂ that is emitted may vary, depending on the amount of removal and how the biomass would be handled afterwards. Because the number of trees and the area of vegetation disturbance would be limited during Project construction, the effects on the sequestered CO₂ or the loss of carbon stored in the removed trees or vegetation would be minimal and are not further analyzed (emphasis added, FEIS p 3-204).”

It is erroneous to describe tree removal as a possibility that SWLRT “may require” and as “limited.” Significant tree removal has already been identified as part of the co-location construction process for SWLRT in the Kenilworth Corridor. As such, this type of “analysis” makes a mockery of the environmental regulations with which this FEIS is purportedly complying, reducing the EIS process, intended to protect the environment that is being considered for an LRT construction project, to simply another piece of paperwork.

Previously, SPO staff minimized the value of the trees that would be removed by referring to them as mostly Buckthorn. Informal citizen survey found that the majority of trees to be removed were not Buckthorn. In terms of being CO₂ sequesters, referred to as ‘sinks’ in the world of GHG reduction, trees are “sinks,” regardless of tree species. That is, trees remove CO₂ from the atmosphere. In urban areas, they are even more important, as they mitigate against the heat increasing effects of asphalt and concrete. The impact of tree loss is not simply the release of carbon caused by tree removal, but the loss of tree “sinks” in the urban environment for ongoing CO₂ sequestration.

3.11.3.2 Mobile Source Air Toxics Analysis

“Project operations will have the potential effect of increasing MSAT emissions in the vicinity of nearby homes, schools, and businesses; therefore, under the Project there may be localized areas where ambient concentrations of MSATs will be higher than under the No Build Alternative. The localized increases in MSAT emissions will likely occur near the proposed light rail stations, the park-and-ride lots, and OMF; however, as discussed in the Technical Memorandum, the magnitude and the duration of these potential effects cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific health impacts. In addition, even if these increases do occur, they will be substantially reduced in the future due to implementation of EPA’s vehicle and fuel regulations.” (FEIS p 3-203)

In terms of air toxics, that which is most well known as ‘smog’, such toxics will (described as ‘may’ in the above FEIS quote on the basis of “unavailable or lack of information in forecasting project-specific health impacts”) increase due to congestion around SWLRT stations and Park and Rides. Not included in the FEIS analysis is the increased congestion associated with the frequent LRT crossings of urban roadways. Increased congestion at intersections has already occurred for both the Hiawatha and

Central Corridor LRTs. To omit a known source of increased air toxics associated with LRT routes is both poor science and poor environmental analysis. Congestion and therefore air toxics will occur and will increase at roadways impacted by the SWLRT route. Further, SWLRT will add to air toxics at precisely those locations where people will congregate: at LRT stations, at Park and Rides, and at any planned TOD in the vicinity of those areas. Mobile Source Air Toxics are associated with the increase in asthma in urban areas, a significant public health concern and a key example of public health disparities for those concerned with such issues.

Per the FEIS, this should not be a concern, as federal EPA regulations regarding vehicle emissions, not SWLRT, will continue to reduce air toxics in the future.

3.12.1 Noise Regulatory Context and Methodology

The erroneous definition in the SDEIS of the baseline condition of noise levels in the corridor is not altered or corrected in the FEIS. In the SDEIS, the baseline condition of noise levels in the corridor included the freight line, though its placement in the corridor was on a temporary basis. The freight placement was changed to a permanent basis by the Metropolitan Council and suburb dominated CMC when they decided not to move the freight out of the corridor.

This decision was made by the Metropolitan Council and CMC, yet framed as though it was “not possible” to move the freight, though the independent freight rail expert hired by the Metropolitan Council to evaluate moving the freight determined that it was, in fact, possible to move the freight, and possible to do so safely.

Again, to review factual history rather than Metropolitan Council FEIS rewrite, moving the freight was the condition upon which the City of Minneapolis accepted the route through the corridor. Several years later, after the City of Minneapolis’ agreement had been obtained, rather than moving the freight, its location through a residential neighborhood has been made permanent, and over a hundred million dollars in public transit funds has now been allocated, as part of the proposed SWLRT project cost, to enhancing the rail track, for the benefit of private railroad companies using the corridor.

For the clear reasons stated above, the freight noise is now a permanent condition of the corridor only because the project planners decided it would not be moved, and, further, dedicated additional transit monies to its private business infrastructure. As such, permanent freight rail noise is a new feature of the corridor, caused by the SWLRT project plan, and should not be included in the baseline noise condition when measuring noise impacts of the proposed project.

3.12.1.2 Noise Criteria

“FTA noise criteria are based on the land use category of the sensitive receptor:

Land Use Category 1 Tracts of land where quiet is an essential element in their intended purpose. This category includes lands set aside for serenity and quiet.

Land Use Category 2 Residences and buildings where people normally sleep.

Land Use Category 3 Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, theaters. Places for meditation or study ...campgrounds and recreational facilities can also be considered to be in this category. Certain historical sites and parks are also included.” (FEIS p 3-208)

The determination of impact is a combination of 2 factors: The Land Use Category, and the Environmental Noise assessment. “The standards include both daytime and nighttime limits for three different categories of land use or noise area classification” (FEIS, p 3 -210). In other words, depending on the Land Use Category, the same Environmental Noise level may be rated as no impact, moderate impact, or severe impact.

“As shown in Table 3.12-6, the Project will result in one moderate noise impact at the Kenilworth Channel. The Kenilworth Channel was assessed as a Category 3 land use, which represents parks and other similar uses. The lagoon bank at the Kenilworth Channel was assessed as a Category 1 land use, which represents locations with very high sensitivity to noise.” (FEIS p 3-219)

In spite of a classic depiction of serenity being a kayak or canoe gliding on a quiet lake – such a photo of a kayak in the Kenilworth Lagoon recently was published in the Minneapolis Star and Tribune --the Lagoon has been classified as Category 3 land use. As such, the impact of noise from 12 LRT trains per hour overhead are put in a lower category than the impact of the same noise on a “sensitive receptor” sitting on the lagoon banks, watching the same kayak floating in the water. The “sensitive receptor” on the banks is at a further distance from the LRT trains overhead than the kayak in the lagoon. Therefore, the noise impact reaching a “sensitive receptor” on the banks, though the banks are a location designated as a Category 1 land use and having a very high sensitivity to noise, is rated as having no impact whatsoever, and therefore not requiring mitigation.

Remarkably, the Project Noise Level impact for the Lagoon Bank, 54 Leq (dBA) is exactly the same as the Existing Noise Level Leq (dBA), 54, for the Lagoon Bank. **Per the FEIS, the addition of 12 LRT trains per hour overhead does not add *any* additional noise to the area designated as a location with very high sensitivity to noise. This conclusion defies common sense and experience.** Per the FEIS, the “sensitive receptor” in the kayak on the lagoon, though even closer to trains crossing the

lagoon overhead, is deemed only to suffer a moderate impact, as the lagoon location is not deemed an area with a very sensitivity to noise. And therefore, the threshold to reach criteria for severe noise impact is raised higher, and not met.

Mis-categorizing the Lagoon as an active recreational area, and then using the misleading category to downgrade impacts to the Lagoon as moderate, does not fulfill the purpose of EIS regulations intended to protect public park and environmentally sensitive areas.

In spite of public testimony during the SDEIS hearing regarding the nature of the recreational use of the Lagoon, and that the waterways of Lake of the Isles permit only non-mechanized watercraft, the FEIS maintains the category 3 designation for the Lagoon and defines the resulting impact on the park as moderate.

Further, when sound travels over water, the reverse is closer to the reality of impact on “sensitive receptors.” From the point of view of the science of sound on water, sound travels farther, and is amplified, over water. That is, sound will be experienced as louder on the Lagoon by the “sensitive receptors” in kayaks and canoes.

On calm lakes, bays, creeks, or in restricted visibility, sound carries exceptionally well. If one ever went camping around a lake, knowledgeable campers often would tell you to keep the noise down at night, since cool air, and a flat-water surface amplified the sound you were making, so that everyone on the lake heard you .

According to Howard Shaw, Ph. D. and Cheryl Jackson Hall, Ph. D., "Experience suggests that sound, like light, travels (more or less) in straight lines. However, to the contrary, sound actually tends to curve downwards over a lake's surface.

Sound traveling along straight lines would disperse quickly into the space above the lake. Instead, sound that "should" rise up and be lost typically curves back down to the lake/ground level. Therefore, it sounds louder than it "should." This is a well-known and easily demonstrated observation, measurable out there on real lakes (American Boating Association, 2016).

FEIS Table 3.12-7 Summary of Mitigation Measures and Residual Impacts for Residential and Institutional Locations

From the FEIS Table 3.12-7:

Minnetonka: Claremont Apartments Noise Impacts: Moderate Impacts without Mitigation
Noise Level Increase (dBA) 3.7 Mitigation Measure: 8 foot high noise barrier extending 1,800 feet.

Hopkins: Monroe Avenue Noise Impacts: Moderate Impacts without Mitigation
Noise Level Increase (dBA) 3.2 Mitigation Measure: 3 foot high parapet barrier extending 500 feet on elevated structure over Excelsior Boulevard

Minneapolis: Kenilworth Channel Noise Impacts: Moderate Impacts without Mitigation
Noise level Increase (dBA) 7.2 Mitigation Measure: 2 foot high parapet wall and rail dampers, 300 feet.

To mitigate the “moderate impact” of 12 trains an hour over the Lagoon, the FEIS and SPO has determined that a 2 foot high parapet wall is sufficient to mitigate a 7.2 Noise Level increase in urban parkland that is a rare and unique resource within national urban borders. Given the need for areas of tranquility in urban settings, increasingly validated by new research on the impact of noise on physical and mental health and cognitive functioning, it would seem that every effort, including but not limited to an 8 foot high sound wall to effectively wall off LRT noise from the Lagoon, would be made to mitigate the noise impacts on this sensitive environmental area. However, it may be that any parapet wall higher than 2 feet would block the view of the Lagoon by suburban SWLRT passengers commuting into the city.

The impact of noise in urban areas is coming under increasing scrutiny by urban planners. Rather than the old-fashioned belief that the urban environment is simply one of skyscrapers and industrial areas that urban dwellers do and should be able to adapt to, it is becoming more apparent that human beings need areas of quiet to function adequately, for learning, sustained cognition, and for regular physiological restoration in a built environment. Though receiving renewed attention by urban planners now, this fundamental understanding was the impetus that originally spurred the foundation of the Minneapolis Park System in the nineteenth century. Community leaders who founded the Minneapolis Park System as a separate entity from Minneapolis City Government, witnessed firsthand the destructive impact of industrialization on neighborhoods in places such as Chicago, and did not want the same degradation of quality of life to be created in Minneapolis.

Parkland is always threatened by development, and urban parkland exponentially more so. At the same time, urban residents are faced with higher and more constant levels of noise than their suburban counterparts, from commuter traffic, trains, airports, and industry, and consequently have greater needs for the quiet and green space provided by urban parks.

Researchers report in the Southern Medical Journal that sustained growth in highway, rail, and air traffic are especially concerning, in a way that is analogous to second-hand smoke, second-hand noise is an unwanted airborne pollutant produced by others; it is imposed on us without our consent, often against our wills, and at times, places, and volumes over which we

have no control. Researchers found that it took only 30dB to disturb sleep and cardiovascular effects are seen after exposure to 65dB (CityLab 2012, Benfield, “Just How Bad is Noise Pollution for Our Health?”).

Further, noise is correlated with public health risks:

Laboratory studies carried out on humans have shown that the exposure to noise affects the autonomous nervous system and the endocrine system. Heart rate, blood pressure, cardiac output, blood flow in peripheral blood vessels and stress hormones (including epinephrine, nor-epinephrine, cortisol) are affected. At moderate environmental noise levels such acute reactions are found, particularly, when the noise interferes with activities of the individuals (e.g. concentration, communication, relaxation). Noise-induced instantaneous autonomic responses do not only occur in waking hours, but also in sleeping subjects even when they report not being disturbed by the noise (“Cardiovascular Effects of Noise on Man,” Wolfgang Babisch, presented at the 2015 Acoustical Society of America annual meeting).

Even moderate noise impacts increase stress hormones, not only in adults, either when awake or sleeping, but in children as well. When an old airport closed near a school and opened at a distant site, the students near the former airport site demonstrated improved tests on memory and reading, while students near the new airport site showed a decline in scores after the new airport opened (Weiss, cited in CityLab 2012, op cit).

3.15.3.1: Electromagnetic Fields and Electromagnetic Interference

The SWLRT FEIS, Section 3.15.3, does consider the effects of electromagnetic fields (EMFs) on public utilities, but the effects of EMF on riders and residents is cursory and incomplete. Not addressed in the FEIS is the fact that EMFs created by pantographic/catenary power lines have been associated with detrimental impacts on human health. Pantographs/catenary lines will run close to residences along the SWLRT route. Some studies link EMF exposure with childhood leukemia (Ahlbom, IC, Cardis E, Green A, et al. Review of epidemiological literature on EMF and Health Environmental Health Perspectives, 2001; 109 Suppl 6:911-933) and while controversial, there is a duty to protect members of the public (including pregnant women, infants, the unborn, children and the infirm) from short-term and long-term exposure to EMF. Further analysis is needed.

3.17: Cumulative Impacts

We don't see evidence that safety concerns raised by co-location are adequately understood or addressed. LRT Done Right fully supports the comments submitted by Citizen’s Acting for Rail Safety - Twin Cities.

Chapter 7: Financial Analysis

Table 7.1-3 sets forth the various sources of funds for the local share of the Project. Language should be added to reflect that the 2016 Legislature adjourned sine die without making any provision for the remaining local funding needed for the Project. The missing funds are part of the \$165 million listed as the State's contribution. The Met Council has been able to obtain some of the funds the State has decided not to appropriate so far (and make up for the \$30 million the legislature actually rescinded last year) by taking funds from a reserve fund and making it up with some MVST revenue not intended for SWLRT.

The \$165 million listed for HCRRA's contribution does not include the value of the land that HCRRA is transferring to Hennepin County who will donate it to the Project. This should be clarified.

The Met Council should disclose who will be financially responsible for the cost of any derailment or other incident arising from the close proximity of freight rail and light rail, and include that cost as a Project cost.

The public should be informed that according to Table 7.2-2, both the State AND CTIB are shown as having to increase their Metro Transit subsidies by \$18.93 million annually (expressed in 2040 dollars) in 2040 if the Project is built compared to the No Build scenario. Please explain these figures, compared to the \$20.8 million total operating cost of SWLRT shown on the New Starts rating summary description from November, 2015.

The public should also be aware that Table 7.2-2 shows an increase in the annual subsidy needed for SW Transit in the amount of \$14.88 million in 2040, without having an identified source to make up for that loss. Please disclose how many SW Transit Express bus riders the Met Council is projecting will change to SWLRT, and how much of the additional subsidy noted above is the result of the commitment to maintain SW Transit, with reduced ridership.

Please explain to the public what is meant by this statement in section 7.3: "Across all scenarios, it is noteworthy that the financial structure of the Metropolitan Council Transportation Division and the Southwest LRT Project are dynamically resilient."