

COMMENTS OF THE CITY OF MINNEAPOLIS – 8/19/04

ENVIRONMENTAL ASSESSMENT

Interstate 35W and Highway 62

State Project: 2782-281

Minnesota Project: IM 0353(287)

INTRODUCTION

The Environmental Assessment for Interstate 35 (“I-35W”) and Highway 62 (hereinafter “TH62”) State Project 2782-281, Minnesota Project IM 0353(287) approved by the Minnesota Department of Transportation (“Mn/DOT”) on June 21, 2004 and approved by the Federal Highway Administration (“FHWA”) on June 24, 2004 is intended to serve both the purpose of an environmental assessment under federal law, 42 U.S.C. 4332, and of an environmental assessment worksheet under state law, Minn. Stat. §116D, Minn. R. 4410.1300.

This Environmental Assessment (“EA”) demonstrates the need for an Environmental Impact Statement (“EIS”) under both federal and state law, since the proposed I-35W and TH62 highway expansion project is a major federal action “significantly affecting the quality of the human environment,” 42 U.S.C. 4332(2)(C) and a major governmental action resulting in the “potential for significant environmental effects.” Minn. Stat. 116D.04, Subd.2a, Minn. R. 4410.1700, Subp. 1.

An EIS that analyzes a fully-developed bus rapid transit alternative, air quality emissions and adverse human health effects, environmental justice issues, water quality impacts and mitigation strategies will fulfill the purpose of the National Environmental Policy Act to “foster excellent action” in designing the I-35W and TH62 corridors and help public officials at both Mn/DOT and FHWA “make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.” 40 C.F.R. 1500.1(c). Such an EIS will also assist the agencies in complying with Minn. Stat. §116D.04, Subd. 6, which provides:

No state action significantly affecting the quality of the environment shall be allowed . . .where such action. . .is likely to cause pollution, impairment, or destruction of the air, water, land or other natural resources located within the state, so long as there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare and the state’s paramount concern for the protection of its air, water, land and other natural resources from pollution, impairment, or destruction. Economic considerations alone shall not justify such conduct.

A project of the scope and magnitude of the proposed I-35W and TH62 highway expansion creates significant environmental effects based on its “context” and “intensity.”

40 C.F.R. 1508.27. In a site-specific action like the proposed highway project, significance doesn't require a showing of effects in the world as a whole, but focuses on effects "in the locale" near the proposed action. 40 C.F.R. 1508.27(a). An action demonstrates "intensity" for the purposes of the NEPA EIS requirement when a proposed action "affects public health or safety," when "the effects on the quality of the human environment are likely to be highly controversial" and when the "degree to which the possible effects on the human environment are highly uncertain." 40 C.F.R. 1508.27(b)(2), (4) and (5). Uncertainty mandates preparation of an EIS where the uncertainty "may be resolved by further collection of data, or where the collection of such data may prevent speculation" on potential effects. *National Parks & Conservation Ass'n v. Babbitt*, 241 F. 3d 722, 732 (9th Cir. 2001).

It is inappropriate to propose a project of this magnitude without completing an EIS that evaluates alternatives and the effects of the proposed action, particularly motor vehicle air emissions that may affect public health and environmental justice. The I-35W and TH62 expansion project involves a total project area of 232 acres and a total project length of slightly over five miles. (EA, p. 39) When the Nevada Department of Transportation proposed widening US-95 from 6 to 10 lanes for a distance of 5 miles, an EIS was prepared considering two separate options to widen US-95 and a "no build" alternative and a Final Environmental Impact Statement was prepared in response to public comment. The current litigation in the Ninth Circuit, for which the project has been stayed pending appeal, requests *further* supplementation of the EIS. *Sierra Club v. United States Department of Transportation*, 310 F. Supp. 2d 1168 (D. C. Nev. 2004), attached as Exhibit 64, *Sierra Club v. Federal Highway Administration et al.*, (9th Cir. No. 04-16155), Order filed July 27, 2004, attached as Exhibit 63. It is inappropriate for Mn/DOT and the FHWA to bypass the EIS process entirely for a project of this magnitude.

In Minnesota, an agency's decision that an EIS is not required will be reversed if the decision fails to "consider an important aspect of the problem." *Trout Unlimited, Inc. v. Minnesota Department of Agriculture*, 528 N.W. 2d 903 (Minn. App.1995). "When an EAW has indicated, as here, that project may harm the environment, use of that indication to conclude that an EIS is unnecessary, makes a mockery of the EAW as a decision-making tool." *Id.*, 528 N.W. 2d at 909.

Prior environmental review conducted by Mn/DOT and FHWA addresses none of the issues required to be analyzed in the requested EIS. Prior environmental review was performed for a different project. The proposed I-35W and TH62 project has evolved and changed over recent years, beginning with a "Preferred Alternative" for expansion of I-35W in 1995 that included Light Rail Transit, which failed due to lack of funding; then developing

into a “Deferred Project” expanding I-35W from I-494 to 42nd Street in 1996, which the Minnesota Legislature blocked in 2001 due to concerns about capacity, extended closure and lack of transit planning; and then developing into the current proposal which was presented to the Legislature in January 28, 2002. The EIS prepared for the “Preferred Alternative” was completed in 1995 and the FEIS Addendum prepared for the “Deferred Project” was completed in 1996. (See FEIS and Deferred Project Addendum excerpts attached as Exhibits 12 and 13).

In 2001, the Minnesota Legislature imposed a moratorium on the I-35W expansion and TH 62 “Deferred Project,” requiring that Mn/DOT include a transit component in the project. (See Minnesota Session Laws 2001, Ch. 8, Sec.2, attached as Exhibit 14). In 2003, the Minnesota Legislature required that Mn/DOT conduct a study on the feasibility of implementing a Bus Rapid Transit (BRT) system in the I-35W corridor including components such as exclusive right-of-way, accessible stations, traffic management on local streets and frequent bus operations. (See Minnesota Session Laws 2003, Ch. 19, Art. 2, Sec. 71, attached as Exhibit 15)

Since the 1995 and 1996 environmental review documents were prepared pertaining to highway expansion, it is clear that the nature of the proposed project and the nature of legislative requirements has changed. In addition scientific knowledge and information about traffic forecasting, air pollution conditions in Minnesota, Minnesota health risk level benchmarks, health impacts of fine particle pollution, health risks of mobile source air toxics and modeling available to assess mobile source vehicle emissions have significantly changed. Nearly all of the extensive data and recommendations from the U.S. EPA, MPCA, federal and state rulemaking, peer-reviewed literature or other sources cited in these Comments was prepared, developed or enacted subsequent to 1996.

Mn/DOT has chosen to characterize the project as “new” for purposes of municipal review. (See letter of P. Ginder to T. O’Keefe, Mn/DOT dated June 28, 2004 and responsive letter of T.O’Keefe dated July 20, 2004, attached as Exhibits 9 and 10) and the current project bears different proposal numbers. (See FEIS and Deferred Project Addendum Excerpts, *supra*, Exhibits 12,13). If an agency has suggested that a project is new for purposes of municipal review, that agency should be estopped from opposing a new EIS if there is potential for significant environmental impacts from the proposed project.

Although not required to do so by any applicable law, the City of Minneapolis has made every effort to obtain a thorough and thoughtful analysis of alternatives and environmental impacts of the proposed highway expansion short of requiring an EIS. The City of Minneapolis unanimously adopted a Resolution on January 30, 2004 defining the

alternatives analysis requested in these Comments. This Resolution opposed expansion of I-35W to more than four lanes in either direction, except in the case that a fifth lane in either or both directions would be dedicated to Bus Rapid Transit (BRT), or other mass transit, excluding all vehicles other than transit buses and high occupancy vehicles carrying three or more people (HOV3), and that such dedication would be entered into a written agreement between Mn/DOT and the City to effectively guarantee that the fifth lane will not be converted or modified to allow other uses without the agreement of the City of Minneapolis. Resolution 2004R-035, Exhibit 5 attached).

The Mayor of Minneapolis and eleven of the City's thirteen Council Members sent a letter to Mn/DOT Commissioner Carol Molnau on April 15, 2004 expressing the City's interest in explicit dedication of any fifth lane of I-35W to BRT/HOV use, the need for funding stations and other facilities and operations for transit on I-35W and concerns about the need for analysis of air quality impacts of the project and requesting that the project proposal and environmental assessment address these concerns. (*See* Exhibit 6 attached). When Mn/DOT and FHWA prepared a Draft Environmental Assessment, Minneapolis promptly responded with a letter expressing concerns about the inadequacy of the analysis and specifically requesting analysis of air emissions impacts of the project, use of up-to-date modeling procedures, development of a build alternative including a fully-developed bus rapid transit component and more detailed information regarding water quality, noise, traffic and aesthetic impacts and mitigation. (*See* letter of P. Ginder to T. O'Keefe, Mn/DOT, dated May 19, 2004, attached as Exhibit 8).

Despite the City of Minneapolis' requests, Mn/DOT and FHWA have yet to develop for their own decision-making or provide to the City the information needed "to evaluate proposed projects, which have the potential for significant environmental effects, to consider alternatives to the proposed projects, and to explore methods for reducing adverse environmental effects." Minn. R. 4410.2000, Subp. 1.

An EIS is needed for the proposed I-35W and TH62 highway expansion for the following reasons:

- A fully-developed build alternative with bus rapid transit must be considered to determine the appropriate course of action and mitigate adverse environmental impacts.
- Planning and environmental analysis for the I-35W project has been inappropriately segmented, creating uncertain adverse impacts.
- Analysis of congestion reduction benefits and air emissions harms must be performed using current and appropriate modeling techniques, including use of induced travel modeling and use of the U.S. EPA's MOBILE6.1 and MOBILE6.2 emissions models.

- Analysis of vehicle air emissions is required, particularly in the area adjacent to the proposed highway expansion, because these emissions have the potential to significantly affect human health.
- Analysis of vehicle fine particle emissions and mobile source air toxics adjacent to the proposed highway expansion is required because these emissions have the potential to cause a disproportionate adverse impact on low-income and minority persons.
- Analysis of water quality impacts is needed to develop a rigorous plan of mitigation of impacts on impaired waters, flooding and wetlands and to avoid groundwater and drinking water contamination.
- Analysis of noise, traffic and aesthetic impacts is needed to avoid environmental injustice and to provide for mitigation of harms within the scope of any proposed project.
- Public procedures to date have denied citizens a public hearing with the opportunity to express their concerns about the proposed federal highway project.

DISCUSSION

1. An EIS is Required to Consider a Build Alternative with a Fully-Developed Bus Rapid Transit Component through to Downtown

The National Environmental Policy Act (“NEPA”) requires the EIS to discuss alternatives to the proposed action, 42 U.S. C. §4332(2)(C)(iii). Council on Environmental Quality regulations describe the alternatives analysis as “the heart of the environmental impact statement.” 40 C.F.R. §1502.14.

The EA fails to describe or evaluate an alternative that would provide a fully-realized plan for bus rapid transit (“BRT”) throughout the I-35W corridor. In addition to the Build and No-Build alternatives described in the EA, the EA should include a “Build with BRT Facilities and Operations” alternative. This alternative would include, in addition to the construction of an additional BRT/HOV lane from 66th Street to 46th Street, the following components that are critical to the operation of bus rapid transit:

- Extension of an exclusive right-of-way BRT/HOV lane north to downtown Minneapolis,
- Construction of stations for bus rapid transit accessible from the exclusive right-of-way;
- Development of park and ride facilities throughout the I-35W corridor,
- Contractual commitments to dedicate use of the additional lane for BRT/HOV purposes.
- Changes in bus service, circulators and transit operations to result in an increase in transit ridership and utilization.

- Traffic management on local streets.

These BRT components are needed under applicable legislation and policy, to provide any measurable transit advantage. In the 2003 Special Session, the Minnesota Legislature required that Mn/DOT conduct a study on the feasibility of implementing a Bus Rapid Transit (“BRT”) system in the I-35W corridor, including components such as exclusive right-of-way, accessible stations, traffic management on local streets and frequent bus operations. (See Exhibit 15). Although this study is not due to be completed until December 10, 2004, its first phase, the Task 1 Report proposes provision of stations, connecting services, park and ride lots for BRT. (Task I Report, BRT Study, attached as Exhibit 4, p. 8). The Minneapolis City Council, in its unanimous Resolution in January 2004, also set forth criteria for meaningful BRT/HOV implementation on I-35W, including the exclusive use of the fifth lane for BRT and high occupancy vehicles containing three or more people (“HOV3”), a written agreement guaranteeing dedication of the fifth lane in either or both directions to BRT/HOV(3), and the assurance that HOV use will only be allowed to the extent that HOV vehicles do not reduce the speed of bus transit. (Resolution 2004R-035, *supra*, attached as Exhibit 5).

A fully-developed Build with BRT Alternative is also required to evaluate and mitigate the impacts of increased vehicle traffic on I-35W and TH62, the increased induced travel resulting from these capacity increases, and the increased motor vehicle emissions from increased vehicle miles traveled on these highways.

Sections 3 through 5 of this Discussion will explain the need for an EIS to update traffic and air emissions modeling assumptions and provide an analysis of vehicle emissions known to cause adverse health impacts. But, even under the limited and incomplete traffic forecasting assumptions contained in the EA, it is clear that bus rapid transit is necessary to mitigate the impacts of increased vehicle traffic on I-35W and Highway 62. The EA suggests that there will be a significant increase in traffic on I-35W and TH62 by 2030 as a result of building the proposed project. By 2030, the Build alternative will result in a 30 to 33 percent increase in traffic volumes in various sections of the project, as compared to the No-Build alternative. (EA, p.73, Table 13). For example, as compared to today’s traffic volumes, by 2030 the Build alternative will result in 224,000 vehicles in the Commons Area segment, an increase of 69,000 vehicles or 45 percent over today’s traffic volume of 155,000. (EA, p.73, Table 13; EA, p. 13, Table 4).

When the Nevada Department of Transportation and the FHWA recently proposed widening a five-mile stretch of highway US-95, the U.S. EPA urged that without transit and demand management, “These road widening actions could collectively result in significant air quality, noise and community impacts without adequately addressing congestion and

intermediate or long-term transportation needs.” (Letter of D. James, U.S. EPA Region IX to Nevada Department of Transportation on January 3, 2000, attached as Exhibit 65, p. 33-16225). The U.S. EPA recommended “aggressively promoting multiple occupancy transportation modes, significantly reducing vehicle miles traveled (VMT) and minimizing the reliance on road capacity expansion to ease traffic congestion” and stated that a “clear, strong commitment to improved transit options” should be made prior to implementing road widening. *Id.*, p. 33-16225.

2. An EIS is Needed to Allow Analysis of Connected Projects and Determine Total Environmental Impacts.

Segmentation of the I-35W reconstruction project to assess only the segment from 66th Street to 42nd Street is inappropriate for environmental review under Minnesota law. In general, multiple projects and multiple stages of a single project that are connected actions or phased actions must be considered in total when comparing the project or projects to the thresholds for an environmental assessment worksheet and environmental impact statement. Minn. R. 4410.4300, Subp.1. For highways related to a large existing or planned network, Minnesota rules require that selection of elements to determine either the need for an EAW or for an EIS “must be logical in relation to the design of the total system or network and must not be made merely to divide a large system into exempted segments.” Minn. R.4410.1000, Subp. 4, Minn. R. 4410.2000, Subp. 4.

The segment of the I-35W reconstruction discussed in the EA is but one stage of a single connected I-35W highway expansion project, which is logically considered as a whole and was part of a unified EIS ten years ago. (*See Mn/DOT and FHWA, Final Environmental Impact Statement for I-35W “Preferred Project,”* approved January 19, 1995, attached as Exhibit 12). Division of the I-35W corridor into smaller segments should not be allowed to mask the environmental impacts of the I-35W highway expansion.

Water quality will be affected by the addition of lanes along the length of I-35W, since stormwater runoff and drainage systems run the length of the highway. Ozone formation, fine particle pollution and mobile source air toxics create impacts from vehicle miles traveled along the length of I-35W. Air quality benefits from a properly designed bus rapid transit (“BRT”) system similarly result from transit along the I-35W highway corridor.

In response to standardized questions (6)(d) and 6(e) of the Environmental Assessment Worksheet, Mn/DOT and FHWA indicate that the project is not a subsequent stage of an earlier project and that future stages of the project are neither planned nor likely to happen. (EA, p. 39). However, just a few pages earlier, in describing the functionality of bus and high occupancy vehicle lanes included in the project, the EA states, “While this plan currently

shows bus-only shoulders north of 46th Street, Mn/DOT plans to extend the HOV lane from 46th Street into downtown Minneapolis.” (EA, p. 19) The EA also assumes, for purposes of the Build Alternative, that a number of improvements will be made in the corridor, including adding off-ramps from I-35W to Lake Street, adding lanes on TH62 from Highway 100 to Penn Avenue and from Portland Avenue to Highway 77 and adding high occupancy vehicle lanes on I-35W between 46th Street and the system ramps to and from I-94. (EA, pp. 33-34).

In denying the need to analyze corridor-wide impacts and assuming further construction extending lanes on both I-35W and TH62, the EA provides both a minimal analysis of adverse environmental and traffic impacts and a weak analysis of the potential for mitigation of these impacts.

Corridor-wide plans should be evaluated as a whole in an EIS to calculate the increased vehicle miles traveled that will result from highway capacity additions and to estimate the vehicle air emissions associated with the increase in vehicle miles traveled (“VMT”). A comprehensive alternative for bus rapid transit from Lakeville through downtown Minneapolis along I-35W and for other transit improvements along TH62 should be developed to guide decision-making.

Corridor-wide plans should also be reviewed as a whole in an EIS to calculate the total increase in impermeable surface and storm water runoff volume resulting from the project. Without this comprehensive view, impacts on flooding, water quality impairment and effects on watersheds are certain to be understated, leading to inappropriate mitigation strategies.

In addition, segmentation of project analysis, while assuming for other purposes that additional construction of I-35W and TH62 lane expansion will occur, results in overestimation of the benefits of the proposed project in reducing congestion and understatement of the traffic management concerns associated with the project.

According to the proposal, I-35W will enter the I-35W/TH 62 interchange from the south with an added BRT/HOV lane for a total of 3 lanes. Eastbound TH62 will add two general purpose lanes, one of which will drop at the East Junction leaving 4 lanes turning north. These 4 lanes are joined by 2 lanes from westbound TH62 for a total of 6 lanes northbound at 60th Street. The sixth lane drops at the Diamond Lake Road exit leaving 5 lanes to proceed north. Mn/DOT will temporarily stripe the 5-lane section to reduce it to 4 lanes to match the existing 4-lane section at 42nd St.

Although the EA states that work to extend a fifth high occupancy vehicle lane north to I-94 and, presumably into downtown Minneapolis, is “currently in Mn/DOT’s 20-year plan,” (EA, p. 34), there is no layout and little design activity on necessary future stages to

this project to the north, the west, and the east, particularly for the extension of a bus rapid transit and high occupancy vehicle (“BRT/HOV”) lane from 42nd Street north to downtown. Issues related to the work that has been accomplished by the City and Hennepin County for Lake Street Access to I-35W remain unresolved. Funding for the above, including BRT stations, BRT operations, and supporting local bus service, has not been identified.

Unless and until all of these issues are resolved, the proposed project would deliver 2030 traffic volumes into south Minneapolis without the ability to handle 2030 volumes north of 42nd St, without the ability to extend the BRT/HOV lane north of 42nd St, and without the ability to implement BRT system infrastructure necessary to provide anticipated transit service improvements to transit riders moving to/from this area. Existing congestion on northbound 35W and on eastbound and westbound TH62 approaching 35W might be relieved, only to reappear in south Minneapolis as the system delivers more vehicles than the existing system north of 42nd St can handle.

Even without modeling induced traffic, as described below in Section 3 of this Discussion, the EA suggests that the level of service on northbound 35W north of 46th St will function at level “E” upon completion of the proposed expansion project. (EA, p. 74). The EA also identifies a steady decline in the northbound level of service from “B” between 60th and Diamond Lake Road to “D” at 46th St as the northbound roadway narrows to match the exiting 4 lane section. (EA, p. 74).

With traffic steadily increasing in this corridor, it is a reasonable conclusion that the level of service will continue to decline if there is a delay in adding the BRT/HOV lane to the north. There could be an extended period following the completion of the proposed “Crosstown” expansion project where south Minneapolis will experience increasing congestion as a 2030 highway system feeds into the existing system north of 42nd Street.

An EIS is required to evaluate consequences of termination of the BRT/HOV lane designation at 50th Street and constricting the I-35W roadway from five to four lanes between 46th Street and 42nd Street. Failure to perform this analysis overstates the benefits of the increase in roadway capacity, particularly since there are no current plans or current funding to complete the fifth BRT/HOV lane through to downtown. The EIS should state what roadway and major transit improvements are assumed to be in place under the various No-Build and Build scenarios and analyze the impacts on traffic congestion and air emissions with and without these additional improvements. The U.S. EPA offered the following comments on a similar problem in the proposal for lane expansion of US 95 in Nevada (USEPA letter to NDOT, *supra*, Exhibit 65, p. 33-16228):

[T]he proposed project depends upon future, currently unfunded major capital improvement projects. . . to ensure there is no roadway capacity shortfall.

Thus, adequate increase in roadway capacity and reduction in traffic congestion is not certain. Furthermore, as previously stated, studies from highway projects around the country have shown increased roadway capacity directly leads to increased congestion and miles driven. . . Given the debatable benefits of increasing roadway capacity, we urge NDOT and FHWA to promote alternatives which encourage multiple occupancy transportation modes and significantly reduce VMT.

3. An EIS is Needed to Provide Appropriate Traffic Forecasting to Account for Induced Demand

Although the EA discusses increases in traffic as a result of the proposed I-35W and TH62 highway expansion project, none of the traffic forecasting in the EA or calculation of the benefits from decreased congestion in the EA considers the recognized phenomenon of “induced demand,” the increase in vehicle traffic that results from increases in road capacity. There is no discussion in the EA either about induced or accelerated development due to new highway capacity or about induced travel due to the decrease in the economic costs of travel time as congestion is reduced by adding highway capacity. (*See e.g.* EA, p. 81).

The overwhelming weight of modern authority suggests that induced demand must be considered to obtain an accurate assessment of the benefits and costs of increases in highway capacity.

[A] growing body of evidence suggests that additional highway capacity does not simply relieve congestion, but generates additional travel as well. In the 1995 report entitled “Expanding Metropolitan Highways: Implications for Air Quality and Energy Use,” the Transportation Research Board concluded that “The evidence from studies reviewed here supports the view that highway capacity additions can induce new trips, longer trips and diversions from transit.” A November 1998 study by the Surface Transportation Policy Project analyzed 15 years’ worth of congestion data compiled by the Texas Transportation Institute, and found that “metro areas that invested heavily in road capacity expansion fared no better in easing congestion than metro areas that did not.” The report goes on to say, “Since the 1940’s, dozens of traffic studies have found that traffic inducement does indeed occur. . . The most notable of these studies covers 30 urban areas in California from 1973 to 1990. The authors, UC Berkeley researchers Mark Hansen and Yuanlin Huang, found that at the metropolitan level, every 1% increase in new lane-miles generated a 0.9% increase in traffic in less than five years, which led them to conclude that ‘With so much induced demand, adding road capacity does little to reduce congestion.’”

U.S. EPA letter to NDOT, *supra*, Exhibit 65, p. 33-16229, *See also Sierra Club v. USDOT*, *supra*, Exhibit 64, 310 F. Supp. 2d at 1195.

The Transportation Research Board, an arm of the National Research Council of the National Academy of Sciences, recently published three reports examining the phenomenon of induced travel. The authors of these reports used mathematical techniques that allowed them to separate induced travel demand from travel demand expected in the absence of increased highway capacity. These new reports reflect an emerging consensus that highway expansion induces additional travel demand, and that forecasts that do not account for this effect will seriously underestimate future vehicle use and congestion after highway capacity has been expanded.

A January 2000 report entitled *A Statistical Analysis of Induced Travel Effects in the U.S. Mid-Atlantic Region*, by Fulton, Noland, Meszler, and Thomas, concluded that increases in lane mileage resulted in increases in vehicle miles traveled beyond baseline travel demand. This study estimated the relationship between roadway capacity and vehicle travel, controlling for other key factors, such as population and land use. (Exhibit 16). The report concluded, “The analysis presented here provides strong support for the causal nature of the relationship between new highway capacity and increases in VMT [vehicle miles traveled].” *Id.* at p. 1. In other words, growth in lane miles causes growth in vehicle miles traveled. The report explained:

The basic theory underlying the concept of induced travel is straightforward. The addition of roadway capacity, either through additional miles of roadway or additional lanes on an existing roadway, reduced the time cost of travel. At some level of congestion, any given driver will choose to avoid dealing with that congestion, either in favor of an alternative route, an alternative mode, changing the departure time of the trip, a shorter trip to a similar activity, or avoiding the trip entirely.

Id., at p. 3. The authors observed that “[e]nvironmental costs may also be more significant when induced travel impacts are accounted for, resulting in major differences in the relative social costs and benefits of alternative mobility enhancing projects.” *Id.* at p. 19.

A second report presented in the year 2000, entitled *Analysis of Metropolitan Highway Capacity and the Growth in Vehicle Miles of Travel*, by Noland and Cowart (Exhibit 17) explained that the theory of induced travel is firmly based in microeconomics, since it is essentially a demand response to the price of a commodity, in this case the cost in travel time of vehicle travel. *Id.*, at p. 4. The study concludes that “the benefits of new highway construction are less than would be calculated from a static analysis that included no induced travel impacts” and that “induced travel effects strongly imply that pursuit of congestion reduction by building more capacity will have short-lived benefits.” *Id.*, at p. 14.

A third report, entitled *Relationships between Highway Capacity and Induced Vehicle Travel*, by Robert Noland (Exhibit 18, at p. 16-17), concluded:

The results of the analyses presented clearly demonstrate that the hypothesis of induced demand cannot be rejected. The methods employed all found statistically significant relationships between lane miles and VMT. While other factors, such as population growth, also drive increases in VMT, capacity additions account for about one quarter of this growth. . .[T]hese results strongly suggest that induced demand effects are real and need to be considered by planners for specific projects and by policy makers at both the regional and national level.

The U.S. EPA has conducted a review of the induced travel literature for their Science Advisory Board, *Induced Travel: A Review of Recent Literature with a Discussion of Policy Issues*, which is available on the agency's web site. (Exhibit 19). After this review, the U.S. EPA concluded, "This research has not only built a strong case for the existence of induced travel effects, but in some cases suggests that a large fraction of growth in VMT is directly attributed to increases in road capacity." *Id.* at 1. The EPA noted that the Department of Transportation is also incorporating measures of induced travel demand into their Highway Economics Requirement System which attempts to determine total financial needs for the U.S. highway system using a cost benefit analysis approach. *Id.* at 7.

In describing the application of this research to the National Environmental Policy Act, the U.S. EPA concluded:

[F]orecasts of congestion reduction resulting from additional highway capacity may be overestimated to the extent that they do not account for induced travel. In addition, regulations promulgated by the Council on Environmental Quality (CEQ, 1987) require the assessment of cumulative and secondary impacts of highway projects, some of which may be related to induced travel effects.

Id. at 8-9. The U.S. EPA also suggested that "if congestion reduction forecasts of additional capacity are overstated, then alternative approaches to capacity additions, such as more dense development and provision of transit services, may be more effective at reaching the goal." *Id.* at 9.

The clear weight of authority suggests that modeling for increases in highway capacity must include induced travel, both to accurately estimate congestion relief benefits and to estimate adverse environmental impacts caused by increased vehicle miles traveled and air emissions. Development of models to calculate the magnitude of induced travel may still be ongoing, but the FHWA is well aware that currently available techniques can be used to estimate the magnitude and impacts of induced travel. In fact, the FHWA web site contains a White Paper, *Accounting for Induced Travel in Evaluation of Urban Highway Expansion* authored by Patrick DeCorla-Souza of the FHWA and Harry Cohen (Exhibit 20). This paper

explains that “when capacity is added on a congested facility or to a congested network, new travel is attracted to it, depending on the elasticity of travel demand with respect to the travel time component of the full price of the trip.” *Id.*, p. 3. This model suggests that in an area of high congestion, if there is lower demand elasticity, vehicle miles traveled on the freeway are likely to increase more than 40 percent and corridor-wide VMT is likely to increase by approximately 8 percent. With higher demand elasticity, freeway VMT is likely to increase as much as 47.5 percent, while corridor-wide VMT increases by more than 11 percent. *Id.*, p. 6-7. When coupled with mobile source emissions modeling, evaluation of induced travel would result in both a more accurate estimate of the benefits of added capacity and a more accurate assessment of the externality costs resulting from highway expansion.

At least one court that considered this issue found that an EIS for highway construction was inadequate when it failed to consider induced travel. *In North Carolina Alliance for Transp. Reform, Inc. v. U.S. Dept. of Transp.*, 151 F. Supp. 2d 661, 691 (M.D.N.C. 2001) the court stated:

Defendants offer no response to the expert opinions submitted by Plaintiffs stating that induced travel may cause considerable increases in traffic. As a result, the court finds that Defendants have failed to justify their omission of any consideration of induced traffic and have violated NEPA by failing to examine an important aspect of the project’s environmental effects.

4. An EIS is Needed to Provide Appropriate Modeling of Mobile Source Air Emissions

The analysis of air emissions impacts from the proposed highway expansion project suffers from another defect, in addition to the omission of induced travel effects on vehicle miles traveled. An EIS must be prepared in this case to provide modeling of mobile source air emissions under the current models approved by the U.S. EPA.

Both the MPCA and the U.S. EPA confirm that the MOBILE5A emission model used by Mn/DOT and FHWA in preparing the Draft Environmental Assessment in this matter is out of date and unacceptable. (See May 19, 2004 letter of P. Ginder to Mn/DOT, *supra*, Exhibit 8). In the current EA, Mn/DOT and FHWA admit that that the improved MOBILE6 model for estimating mobile source emissions is now available from the U.S. EPA. However, the EA only discusses the use of current U.S. EPA modeling with respect to carbon monoxide. (EA, p. 82) No reference is made to fine particle pollution or air toxics, the air pollutants emphasized by the City in its extensive comments on the Draft EA. (See May 19, 2004 letter of P. Ginder to Mn/DOT, *supra*, Exhibit 8).

The current U.S. EPA Mobile Source Emission Factor Model is specifically designed, not just to estimate carbon monoxide, but to model the fine particulate and air toxics emissions

about which the City of Minneapolis and the Minnesota Pollution Control Agency have expressed the greatest concern. A U.S. EPA Memorandum from the Director of the Office of Transportation and Air Quality, dated February 24, 2004 on the Subject of Policy Guidance on the Use of MOBILE 6.2 states, “EPA has released a final version of MOBILE6.2, which expands the capabilities of MOBILE6 to include the estimation of both direct particulate matter (PM) emissions and the emissions of certain particulate precursors, as well as air toxics emissions for cars, trucks, buses and motorcycles.” (Exhibit 21, p.1)

It may have once been true that only criteria pollutants could be estimated, but it is now possible for agencies to analyze and protect communities from mobile source fine particle pollution and mobile source air toxics. In its User’s Guide to the new modeling methods, the U.S. EPA explicitly explains how to develop estimates for the relevant fine particle and air toxic pollutants. *See* U. S. EPA, *User’s Guide to MOBILE 6.1 and MOBILE 6.2 Mobile Source Emission Factor Model*, EPA420-R—03-010, August 2003, Exhibit 22, p. 9.

“Emission rates from MOBILE can be combined with estimates of travel (total vehicle miles traveled, or VMT) to develop highway vehicle emission inventories expressed in terms of tons per hour, day, month, season or year.” *Id.*, p. 10. MOBILE 6.1 allows the user to specify the particulate size to estimate, from PM1 through PM10. *Id.*, p. 17, 55. Specific hazardous air pollutants can be estimated using MOBILE6.2, including benzene, 1,3-Butadiene, Acrolein and Formaldehyde, the pollutants modeled and monitored by the MPCA to exceed health benchmarks in Minneapolis. *Id.*, p. 18-19, 59.

An EIS is required so that Mn/DOT and the FHWA can estimate the level of particle pollution and mobile source air toxics pollution resulting from the proposed I-35W and TH62 roadway expansion. Agency judgment, as opposed to agency “will” to push a project to completion, requires consideration of the environmental effects of emissions and the use of current modeling to estimate air quality impacts. *Pope County Mothers v. MPCA*, 594 N.W. 2d 233, 237-238 (Minn. App. 1999).

5. An EIS is Required Due to Mobile Source Air Emissions that Have the Potential for Significant Adverse Environmental effects

A. Emissions Resulting in Ozone Formation

An EIS should be done to analyze the impacts of this project on ozone formation. The EA acknowledges the findings of a recent study conducted for the MPCA (Sonoma Technology, Inc. *Preliminary Assessment of Ozone Air Quality Issues in the Minneapolis/St. Paul Region*, October 10, 2002, Exhibit 33, *see* EA p. 77) that ozone alerts in the Twin Cities are increasing, putting the area at risk for future federal non-compliance. “[O]verall trends show that the number of occurrences of higher ozone concentrations are on the rise.”

Sonoma Technology Mpls/St. Paul Assessment, supra, p. 2-7. See also “Annual averages of peak 1-hour and 8-hr ground-level ozone concentrations are increasing at all sites surrounding the Minneapolis/St. Paul region.” *Id.*, p. 2-1.

Although this study conducted for the MPCA suggests that meteorological conditions and transport of pollutants can contribute to ozone, the study determines that 25 percent of high ozone days in the Twin Cities are primarily caused by local pollution, while 75 percent of high ozone days are attributable in whole or part to local pollution. *Id.*, p. 2-11.

Sonoma Technology concludes in its Preliminary Assessment that mobile sources are the single largest contributors to ozone precursor emissions in the Twin Cities area. *Id.*, p. 3-4. Twin Cities ozone levels are significantly dependent on levels of volatile organic compounds (VOCs) so that ozone would be most effectively controlled by strategies that reduce VOCs. *Id.*, p.4-2. Light-duty automobiles and gasoline trucks, the type of vehicle use that would increase most were the project to be built, are the two largest contributors to on-road mobile source VOC in the Twin Cities area. *Id.*, p. 3-5. Finally, the Sonoma Technology study done for the MPCA suggests the decreased use of automobiles and expanded public transit service as a strategy for ozone reduction. *Id.*, pp. ES-2, 5-2.

Because of increasing ozone concentrations in the Twin Cities, the influence of local pollution on high ozone levels, the likelihood that ozone levels in the Twin Cities are VOC-dependent, the significant contribution of on-road vehicular traffic to VOCs and the potential for bus rapid transit to mitigate effects of increased traffic on ozone precursors, an analysis of ozone precursors should be done to evaluate the proposed project.

The EA cites informal conversations with MPCA indicating that ozone modeling in Minnesota is in a “developmental state” and would need to rely on some default federal assumptions and a relatively coarse modeling grid. (EA, p. 77). MPCA staff have told the City of Minneapolis that cities in ozone non-attainment areas routinely evaluate the effects of proposed highway projects on ozone formation and consider transit improvements to mitigate adverse effects and that this evaluation could be done for the I-35W corridor.

Evidence in the literature confirms the importance of reducing exposure to ozone even at levels that don’t violate federal non-attainment standards. A recent study in the Journal of the American Medical Association found that exposure to ozone and fine particle matter even at levels that do not violate federal standards increased respiratory symptoms and the need for rescue medication for children with asthma. (Gent, et al, “Association of Low-Level Ozone and Fine Particles With Respiratory Symptoms in Children With Asthma,” *Journal of the American Medical Association*. 2003; 290:1859-1867, attached as Exhibit 24).

Increasing transit and traffic control measures can provide distinct health benefits.

Another study in the Journal of American Medical Association found that increasing public transportation along with other traffic control measures during the 1996 Atlanta Olympics reduced ozone concentrations by 28% and acute asthma attacks in children by up to 42%. (Friedman, et al., “Impact of Changes in Transportation and Commuting Behaviors During the 1996 Summer Olympic Games in Atlanta on Air Quality and Childhood Asthma,” *Journal of the American Medical Association*, 2001; 285:897-905, attached as Exhibit 25).

The need to use default assumptions to model ozone impacts does not relieve Mn/DOT or FHWA from the obligation under state and federal law to analyze the increases in ozone precursors and model the likely contribution of increased highway capacity and vehicle traffic to ozone formation. In environmental review, unlike the more quantitative permitting process, the determination that a proposed project would create a likelihood of increased ground-level ozone is a pertinent finding, as would be a finding that transit would mitigate ozone formation and contribute to protection of children’s health.

B. Mobile Source Fine Particle Emissions

An EIS is required to assess the impacts of fine particle pollution, especially adjacent to the proposed I-35W and TH62 project. Fine particle pollution creates a serious public health concern in the specific locale near the project. The fact that, without further analysis, the potential effects of the project are uncertain and somewhat controversial underscores the need for preparation of an EIS.

The EA acknowledges that both the U.S. EPA and the MPCA consider particle pollution a serious human health concern. (EA, pp. 77-78). As referenced from the MPCA’s web site:

Recent data suggests that particles 2.5 microns or smaller may pose the greatest threat to human health because, for the same mass, they absorb more toxic and carcinogenic compounds than larger particles and penetrate more deeply into the lungs. (EA, p, 78)

Both government information and peer-reviewed literature emphasize the degree of risk to human health from fine particle pollution, including fine particle pollution associated with motor vehicle.

- Major sources of the fine particles most dangerous to human health include cars, trucks, and construction equipment as well as coal-fired power plants. (MPCA, *Review of Xcel Energy’s Metropolitan Emission Reduction Proposal*, December 30, 2002, attached as Exhibit 26, p. 29).
- “Fine particles are associated with a range of adverse health effects such as coughing; shortness of breath; aggravation of existing respiratory conditions like asthma and chronic bronchitis; increased susceptibility to respiratory infections; and heightened risk of

premature death from heart attacks and respiratory conditions.” (MPCA, *Review of MERP, supra*, Exhibit 26, p.30).

- The likelihood that the Twin Cities will be found in compliance with federal PM2.5 standards does not mean that fine particles pose no health risk. “Health scientists have studied areas with lower levels of air pollution and have been unable to identify a threshold (a level below which no effect occurs) for some of the more serious health effects of particulate matter. So far, no threshold has been found at ambient levels.” (MPCA, *Review of MERP, supra*, Exhibit 26, p.30).
- In the past four years, the Twin Cities has experienced 34 days where air quality is unhealthy for sensitive individuals due to fine particle pollution. (MPCA, Data from Air Quality Index Chart, Exhibit 27). MPCA staff report that, for more than half of the days, the air quality in the Twin Cities was something less than good.
- Particle pollution from traffic is especially toxic. Researchers have found that “the fine particles from mobile sources were more potent at causing death than equivalent PM2.5 concentrations from power plants.” (MPCA, *Air Quality in Minnesota Problems and Approaches*, 2001 Legislative Report, App. B-32, attached as Exhibit 28).
- A *Journal of American Medical Association* study spanning all 50 states found that each small increase (10 micrograms per square meter) in diesel fine particles caused a measurable increase in lung cancer death and death from heart disease. (Pope et al., “Lung Cancer, Cardiopulmonary Mortality, and Long-term Exposure to Fine Particulate Air Pollution,” *Journal of the American Medical Association*, 2002; 287(92) 1132-1141 attached as Exhibit 29).

Research suggests that the greatest danger from fine and ultrafine particles from vehicle pollution is likely to be near the roadway. The EA cites a study done by Sonoma Technology, Inc. for the Federal Highway Administration in Nevada concluding that fine particle emissions (PM2.5) may be a concern within 100 meters of a roadway (EA, p. 78). Other studies emphasize a range of greatest exposure and greatest concern near high traffic areas.

- Studies conducted in Southern California found that the number of the more dangerous ultra-fine particles in the air was approximately 25 higher near freeways than at other locations and that concentrations of fine particles declined to background levels by 300 meters of the freeway. Motor vehicles were found to be the most significant source of ultrafine particles in the urban environment. (Zhu, et al., “Concentration and Size Distribution of Ultra-fine Particles Near a Major Highway. *Journal of the Air and Waste Management Association*. 2002; 52:1032-1042. and “Study of Ultra-fine Particles Near a Major Highway with Heavy-duty Diesel Traffic, *Atmospheric Environment*. 2002, 36:4323-4335, attached as Exhibits 30 and 31).
- Studies conducted in Minnesota suggest that on-road fine particles are deposited within

a few minutes and that 90 percent of the deposition in an urban area occurs within 100 to 1000 meters of the roadway. Real time research on Minnesota highways also suggests that the number of ultrafine particles thought to be most dangerous to human health, if not the mass of particulate matter, increases with higher speed traffic. (See Kittleson et al., "Nanoparticle Emissions on Minnesota Highways," *Atmospheric Environment*, 2004; 38:9-19, Kittleson, et al. "On-Road Exposure to Highway Aerosols.1. Aerosol and Gas Measurements," *Inhalation Toxicology*, 2004, 16 (suppl.1) 1-9, attached as Exhibits 32 and 33).

- Epidemiology in the United States and Europe has found that there is a statistically significant increase in asthma symptoms in children living near a road with high traffic volumes. (Venn et al., "Living Near a Main Road and the Risk of Wheezing Illness in Children," *Am. J. Respir. Crit. Care Med.*, 2001,164:2177-2180, attached as Exhibit 34). Pediatric hospitalization for asthma is significantly associated with living near roads with high volumes of traffic and living near high levels of truck traffic. (Lin et al, "Childhood Asthma Hospitalization and Residential Exposure to State Route Traffic," *Environmental Research*, 2002; 88 (2) 73-81, attached as Exhibit 35, *see also* Edwards et al. "Hospital Admissions for Asthma in Preschool Children: Relationship to Major Roads in Birmingham, United Kingdom," *Arch. Env. Health* 1994; 49(4) 223-7, abstracted in Sierra Club, *Highway Health Hazards*, attached as Exhibit 36). Two-year old children exposed to higher levels of traffic-related air pollution are more likely to have respiratory illness, including asthma. (Brauer et al., "Air Pollution from Traffic and the Development of Respiratory Infections and Asthmatic and Allergic Symptoms in Children," *Am. J. Respir. & Crit. Care Med.*, 2002; 166:1092-1098, abstracted in Exhibit 36).

There is no justification for failure to analyze the significance of environmental and human health harms resulting from highway expansion and vehicle emissions. Mn/DOT and FHWA admit in the EA that widespread PM2.5 fine particle monitoring has been taking place in Minnesota since 1999. (EA, p. 79). There are have been monitors for PM2.5 in Minneapolis for several years and the capacity for doing comprehensive on-highway measurements has been demonstrated by researchers at the University of Minnesota, whose findings are contained in published literature.

As noted previously, the U.S. EPA has identified approved modeling techniques for fine particle pollution, the MOBILE6.2 model describe above. It is inaccurate to claim that there is no available analysis methodology (EA, p. 79). Fine particle pollution creates a risk of significant environmental effects, requiring an EIS to analyze adverse effects including asthma attacks in children, lung disease and heart attacks.

The failure to analyze any of the impacts of fine and ultrafine particle pollution adjacent to the proposed project are most troubling since several portions of the corridor have high concentrations of low-income and/or minority populations (See EA, pp. 140-152 and

discussion in Section 5 below) as well as schools, churches and a crisis nursery. Compliance with Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” (attached as Exhibit 49) requires that an EIS evaluate whether the project creates or avoids disproportionately high and adverse human health effects on low-income and/or minority populations, including effects from fine and ultrafine particle pollution.

C. Mobile Source Air Toxics

An EIS is also required to analyze the human health impacts of the proposed I-35W and TH62 expansion due to emissions of mobile source air toxics. Mobile source air toxics are recognized carcinogens that create a serious human health concern in the locale near roadways. To determine the scope and significance of this impact, as well as its implication for environmental justice, requires analysis available U.S. EPA approved modeling.

Since March 2001, the U.S. EPA has classified “mobile source air toxics” as a serious health risk, identifying 21 compounds emitted from motor vehicles that are known or suspected to cause cancer. *See Control of Emissions of Hazardous Air Pollutants From Mobile Sources*, 66 Fed. Reg. 17230-17273 (Mar. 29, 2001). (Excerpt attached as Exhibit 37). The U.S. EPA has determined that “motor vehicles are significant contributors to national emissions of several hazardous air pollutants, notably benzene, formaldehyde, 1,3-butadiene, acetaldehyde, and diesel particulate matter and diesel exhaust gases.” *Id.* at 17230. Nationally, mobile sources account for 76 percent of benzene, 49 percent of formaldehyde, 60 percent of 1,3-butadiene, 70 percent of acetaldehyde, 39 percent of acrolein and almost all diesel particle emissions. *Id.* at 17239. According to the U.S. EPA, these emissions are “likely to present the highest risks to public health and welfare.” *Id.* at 17257

Data and findings in Minnesota, as well as the national peer-reviewed literature, suggest that air toxics from the proposed project could have a significant adverse impact on human health, particularly various forms of cancer. Pertinent data and findings include the following:

- Mobile sources contribute 53 percent of the estimated excess cancer risks from toxic air pollutants in Minnesota. (MPCA, *Health Effects of Motor Vehicle Pollution*, March 2000, attached as Exhibit 38, p. 2). In Minnesota, mobile sources contribute 58 percent of the formaldehyde and 67 percent of the benzene, both air toxics known to cause cancer. (MPCA, *Air Quality in Minnesota Problems and Approaches*, 2001 Legislative Report, App. D-7, attached in Exhibit 39).
- Although benzene levels are decreasing due to fuel reformulation, in Minneapolis and other parts of the Twin Cities, monitored and modeled ambient levels of benzene and formaldehyde exceed Minnesota State health benchmarks. (MPCA, *Air Quality in*

Minnesota, 2001 Legislative Report, *supra*, App. D, Exhibit 39).

- Minnesota studies measuring children's personal exposures to a wide range of carcinogenic chemicals in Minneapolis and other cities demonstrate that benzene is the worst chemical to which children are exposed in the environment, in some cases increasing the risk of cancer more than 30 times the acceptable risk allowed under Minnesota health standards. (Minnesota Department of Health, *Comparative Risks of Multiple Chemical Exposures*, July 2000, excerpts attached as Exhibit 40, p. 18).
- The MPCA has determined that "the greatest impact of many HAPs, like benzene, is local." In other words, the pollutant concentration is greatest within very short distances (feet to miles) of the source rather than hundreds of miles from the source." (MPCA Staff Report, *Stage One Vapor Control in Minnesota*, September 19, 2001, attached as Exhibit 41, p. 1).
- Literature has linked residence near high traffic roadways to increased rates of cancer, particularly leukemia and other childhood cancers. A Denver study shows children living within 250 yards of busy roads are 6-8 times more likely to develop leukemia and other forms of cancer. (Pearson, et al., "Distance-weighted Traffic Density in Proximity to a Home is a Risk Factor for Leukemia and Other Childhood Cancers. *Journal of Air and Waste Management Association*, 2000; 50:175-180, attached as Exhibit 42). German researchers found that blood levels of benzene, a risk factor for leukemia, were 71 percent higher in children living in high traffic areas than in children living in low traffic areas. A recent Italian study found that the risk of childhood leukemia was almost four times higher in high trafficked areas with greater benzene exposures. (See Hajimiragha et al., "Exposure of Children to Benzene and Other Motor Vehicle Emissions," *Zentralblatt fur Hygiene and Umweltmedizin*, 1989; 189:50-61 and Crosignani et al., "Childhood Leukemia and Road Traffic A Population-Based Case-Control Study," *Int. J. Cancer*, 2004,108: 596-599 abstracted in Sierra Club, *Highway Health Hazards*, *supra*, attached as Exhibit 36).
- Research in Southern California has found that the highest concentrations of motor vehicle derived air toxics are concentrated along the major high traffic freeway corridors. The conclusion of the study was that the aggregate cancer risk in the Los Angeles basin was 1 in 710. Of the total cancer risk, 90 percent was contributed by emissions from all mobile sources and 50 percent by on-road vehicles. Therefore, the cancer risk attributable to on-road vehicles was approximately 1 in 1400. (See *MATES II*, Executive Summary, Exhibit 43; Resource Systems Group, *Review of Exposure to Toxic Air Pollutants from Mobile Sources and the Impact of the Expansion on US 95 in Las Vegas, Nevada*, December 21, 2001, Exhibit 44). This risk attributable to on-road vehicles is far above the 1 in 100,000 level of public health concern set for cancer in Minnesota. Minn. R. 4717.7300.

Statements in the EA that "there is no valid methodology to perform a meaningful

project-level analysis of air toxics impacts” based on a February 2002 FHWA memorandum (EA, p., 81) are out-of-date and inconsistent with current policy guidance from the U.S. EPA. As described previously in these Comments, the current U.S. EPA MOBILE6.1 model provides a method of analysis for air toxics, including the mobile source air toxics deemed of greatest risk by the U.S. EPA.

For the proposed I-35W and TH62 expansion project in Minnesota, the need to conduct this analysis is particularly compelling. Unlike many other jurisdictions, Minnesota spent several years in rulemaking to determine health risk benchmarks for air pollutants, above which adverse health risks are of concern to the state. *See* Minn. R., Ch. 4717.8000 – 8600. Minnesota has set chronic health risk values for key mobile source air toxics having “cancer” as the endpoint of concern, including benzene (71-43-2) with a chronic HRV level of 1.3-4.5 µg/m³ and formaldehyde (50-00-0) with a chronic HRV level of 0.8 µg/m³. As noted above, both U.S. EPA modeling and MPCA monitoring have found that the levels of these mobile source air toxics exceeded State benchmark health levels in the City of Minneapolis. In addition to ambient air quality monitoring, Minnesota has also conducted more detailed, individualized monitoring, identifying benzene as the single chemical creating the highest risk of cancer in children, including those in Minneapolis. These specific State findings, as well as the environmental justice concerns detailed below for persons living near the roadways require an EIS to analyze the impacts of the I-35W and TH62 highway expansions on air toxics emissions, childhood cancer and other adverse human health and environmental impacts.

5. An EIS is Required because the Project has the Potential to Cause Disproportionate Adverse Effects on in Low-income and Minority Populations

Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” dated February 1, 1994, requires that environmental justice be addressed in all federal planning and programming. The purpose of this Executive Order is to identify, address and avoid disproportionately high and adverse human health and environmental effects of programs, policies and activities on minority and low-income populations. Since the proposed project has federal permit requirements and may receive federal funding, is it considered a federal project for the purpose of compliance with Executive Order 12898. (EA, p. 140, see also Executive Order 12898, attached as Exhibit 49). The protections of Title VI of the Civil Rights Act prevent federal funds from being spent in a way that has the effect of discrimination on the basis of race, color or national origin. Title VI, 42 U.S. C. 2000d *et seq.*

Even with the crude and minimal analysis provided, the EA acknowledges, “Based

on the available data, low-income and/or minority populations are located in several portions of the corridor. The proposed project has the potential for disproportionately high and adverse human health or environmental effects on these populations.” (EA, p. 152).

However, the analysis provided in the EA is inadequate to determine disparate health and environmental impacts on minority and low-income people. First, the use of census tract data is too crude an analysis over too large an area (EA, pp. 140-149) and may, in fact, dilute the disproportionate impacts of the proposed project on low-income and minority persons. Noise, adverse visual impacts, motor vehicle fine particle pollution and mobile source air toxics, will all be experienced more intensely within a few hundred meters of the roadway. An EIS is needed to evaluate whether the persons in the zone of greatest exposure and greatest risk are disproportionately from low income and minority communities.

Second, an EIS is needed to analyze the impacts of vehicle emissions on persons living near the proposed highway expansion, including low income persons and persons of color. The statement by Mn/DOT and FHWA that the project “will not result in exceedance of air quality standards” (EA, p. 152) provides no meaningful protection for low income or minority persons and may be misleading.

As described above, it is recognized both by the MPCA and in the peer-reviewed literature that fine particle pollution increases risks of adverse health effects even in areas that have not violated federal standards. The MPCA has repeatedly called “air alert” days in Minneapolis when particle pollution is unhealthy for sensitive persons without a finding of statutory violation. The effects of fine particle pollution on acute and chronic respiratory and cardiovascular disease have been shown to be significant at concentrations of PM_{2.5} that are likely to be routinely exceeded by emissions from motor vehicles within 300 meters of heavily-trafficked roadways. (See Environmental Health & Engineering, *Preliminary Toxicological Review of Roadway Traffic Pollution*,” EG&E Report #11988, May 11, 2001, attached as Exhibit 47, at 4.1).

The reassurance in the EA may even be misleading with respect to mobile source air toxics. There are no federal ambient air quality standards for any of the mobile source air toxics identified by the U.S. EPA as carcinogens, so the absence of a federal standards violation is meaningless. In the case of state law, although Minnesota health risk values do not prescribe enforceable standards, they do set levels believed by state experts to protect human health. Based on available information, it is quite likely that the proposed project will result in exceedances of Minnesota health risk values for mobile source air toxics, particularly for persons living nearest the roadway. An EIS is needed to ascertain the levels of emissions, potential exceedances and whether the adverse human health risks associated with the

emissions disproportionately burden low income persons and persons from minority racial and ethnic communities.

The weight of evidence and, in fact, the EA itself suggest that the greatest impacts of air pollution from highway traffic are within a relatively short distance of the roadway. The FHWA's study in Nevada suggests that the distance in which localized impacts are found is 100 meters (EA, p. 78), while other studies suggest a range of distances of most likely health impacts from pollution, generally from 100 meters to 300 meters. The following table summarizes some of this literature (see EA, p. 78 and Exhibits 42, 35, 46, 30, 34).

Location of Study	Roadway Distance	Health/Emissions Impact	Journal/Source
Denver Ass'n.	250 yards 2000	Childhood Cancer Leukemia	J. of Air & Waste Mgt.
Erie County, NY Research	200 meters 2002	Childhood Asthma	Environmental
Los Angeles Perspectives	228 meters 2002	Premature Birth Low Birth Weight	Env. Health
Southern California Ass'n.	300 meters 2002	Ultrafine particles	J. of Air & Waste Mgt.
Nevada Study	100 meters 2003	Fine particles	Sonoma Tech. US 95
England Care Med.	90 meters 2001	Childhood asthma	Am. J. Resp. & Crit.

In the City of Minneapolis, people live, work, go to school and worship within this zone of greatest exposure, not just to noise and the aesthetic impacts of the expanded roadway, but to air toxics that increase cancer risks and fine particle pollution that increases the risk of asthma and heart attacks.

Based on a rough geographical information system (GIS) survey, there are 1115 residential properties in zoning classifications R1 through R6 within 100 meters of the proposed expanded roadway. Within 300 meters of the proposed highway expansion there are 2992 residential properties in zoning classifications R1 through R6. Estimating from Minneapolis census data, the number of people living within 100 meters of the expanded highway system could be between 1354 and 3780 residents. Between 1554 and 4278 Minneapolis citizens may live within 300 meters of the expanded roadway system. (See *Estimates of Population and Land Use Within Specified Distances of I-35W and TH62 Expansion Project*, August 2004, Exhibit 50) For purposes of Executive Order No. 12898 and Title VI of the Civil Rights Act, additional analysis of the demographics of this group of most highly exposed persons must be done.

Within this zone of greatest exposure, for example, are the apartments known as City Limits, (125 59th St E, adjacent to I-35W) Windom Gables (Wentworth Court, adjacent to TH62) and Wexford (208-62nd Street West, adjacent to TH62). It is likely that these apartments have a disproportionate number of low-income tenants and tenants from communities of color. Many residents of City Limits are from African, African-American and Hispanic communities. All three apartments accept federal Section 8 certificates for low-income people.

Several of the salient community land uses identified on pages 139-140 of the EA lie within 100 meters or 300 meters of the expanded I-35W and TH62 roadway. Of the two house of worship within 100 meters of the roadway, New Beginnings Baptist Church is one of ten American Baptist Black Church Ministries in Minnesota. (See web page attached as Exhibit 51). The following chart is based on the land use designations in the EA: Minneapolis Properties identified on pages 139-140 of I-35W/TH62 Environmental Assessment that lie within a 300-Meter Area. Those highlighted also lie within 100 Meters

Site	Address
St. Thomas Episcopal Church	4400 4th Ave S
Church of St. Joan of Arc	4537 3rd Ave S
New Beginnings Baptist Church	4301 1st Ave S
St. John's Lutheran Church Washburn Park	4840 Nicollet Ave
Mayflower Congregational Church	106 E Diamond Lake Rd
Bethel Assemblies of God Church	10 57th St W
Martin Luther King Park	4111 Nicollet Ave
Diamond Lake Park	5600 Portland Ave

Ramsey Junior High
Grace House
Parents in Community Action
Temple Israel Cemetery
Nursing Home
Minneapolis Fire Station

1 49th St W
4447 3rd Ave S
4225 3rd Ave S
4153 3rd Ave S
4540 4th Ave S
5410 Nicollet Ave S

Minneapolis representatives suggest that this description of land uses should be updated. Ramsey Junior High has become Ramsey International Fine Arts Center, teaching children as young as kindergarten. A shelter for the Minneapolis Crisis Nursery is now located at 4255 Third Avenue South, serving high-risk infants and children who are disproportionately from low-income and minority families. It is clear that within the 300-meter zone where ultrafine particles and cancer risks may be concentrated, are churches and parks, a school for young children, a crisis nursery and a residential facility for persons with AIDS, many of which may serve a high proportion of low-income and minority persons. When what is at stake is greater risk of childhood cancer, increased asthma in children, lung disease and heart attacks for adults with impaired immune systems, a much more rigorous analysis of impacts is required to comply with state and federal law and policy preventing environmental injustice and discrimination.

The benefits of increasing roadway capacity will be broadly distributed to urban and suburban residents. However, the burdens of the project in adverse health effects will be borne disproportionately by persons who live, work, study and worship near the expanded roadway. The U.S. EPA Office of Transportation and Air Quality has just recently released a Bibliography of Near Roadway Health Effects and Exposure Studies more than twenty pages long, attached as Exhibit 48. This bibliography of epidemiology, toxicology, occupational and human exposure studies demonstrates the overwhelming evidence persons living near roadways bear a higher risk of adverse health effects due to exposure to vehicle emissions.

An EIS is required to determine whether the burdens of roadway health effects resulting from the proposed project will be borne disproportionately by low-income persons, persons who are members of racial and ethnic minorities and children - the most vulnerable persons - and whether additional mitigation of noise and air pollution is needed to prevent environmental injustice and discrimination.

6. An EIS is Needed Due to the Potential for Significant Environmental Impacts Related to Water Quality and Wetlands Destruction

A. Impairment of Water Quality by Storm Water Runoff

The EA acknowledges that the project will increase impervious surface by 57.5 acres, an increase of 58 percent in the described project area. (EA, p. 59, p. 60, Table 11). The EA

also acknowledges (p. 64) the widely recognized impacts on water quality of increased impervious surface:

The most common waterborne pollutants associated with highway runoff include: heavy metals (paint, atmospheric deposition, brake wear and rust); nutrients (fertilizers, leaf litter, and atmospheric deposit of organic matter); chlorides (winter deicing); and particulates (sediment from erosion and winter sanding). Nutrients of particular concern in runoff are nitrogen and phosphorus as byproducts of combustion and from atmospheric deposition, in precipitation or dust.

However, at no point in the EA is any effort made to quantify either the amount of runoff or the amount of any of the critical pollutants that will be released due to increased impervious surface. The EA also fails to mention that both Diamond Lake and the Mississippi River, which will be receiving waters for increased runoff under the proposed highway expansion, have been classified as “impaired waters” due to *excessive nutrients* in the case of Diamond Lake and *fecal coliform* in the case of the Mississippi River. (See MPCA, 2002 303(d) Impaired List, Diamond Lake and Mississippi River, attached as Exhibit 52). The EA proposes settling ponds and grit chambers as the means to control pollution from stormwater to receiving waters. But, no effort is made to quantify how effective these treatment strategies will be in preventing waterborne pollutants from affecting the quality of receiving waters.

Sampling in other jurisdictions confirms that wide range of contaminants, including fecal coliform, phosphorous, nitrates and nitrites as well as suspended solids, dissolved solids and heavy metals are found in runoff from highway construction sites and stormwater from highway facilities. (Kayhanian et al., *Characteristics of Stormwater Runoff from Highway Construction Sites in California*, presented in Transportation Research Record 1743, Paper No. 01-3181, National Academy Press, attached as Exhibit 53; Kayhanian et al., *Characteristics of Stormwater Runoff from Caltrans Facilities*, Presented at Transportation Research Board 81st Annual Conference, Washington, D.C. January 2002, attached as Exhibit 54). An EIS is needed to perform a more comprehensive analysis of storm water impacts on water quality, particularly the additional loading of impaired waters, and to develop mitigation strategies to reduce water pollution.

The proposed grit chamber systems treat for Total Suspended Solids (TSS) without specifications for treatment volume or removal of other pollutants (Lenhart, *Methods of Sizing Water Quality Facilities*, Stormwater, July/August 2004, p. 4-7, attached as Exhibit 55). Even with respect to sediment, the project layout and EA descriptions are insufficient to determine the degree to which suspended solids will be controlled. Unless grit chambers are accessible and well-maintained, they provide minimal (and in some severely mismanaged

cases contribute to the impairment of waters) treatment of storm waters. (See C. Brzozowski, "Maintenance Goes Underground," *Stormwater*, July/August 2004, attached as Exhibit 56). The layout doesn't describe the location of or access to grit chambers or the maintenance schedule in sufficient detail to determine that the grit chambers will serve the function of reducing sediment, pollutants, mosquito management or waterborne disease. No monitoring is proposed to determine if pollutant removal objectives will be met either during construction or post-construction.

The I-35W and TH62 expansion project proposes to convert wetlands to ponds, posing additional water quality concerns. Pond design is site specific and dependent on the permanent pool or Hydraulic Residence Time (HRT). Converting to ponds may reduce the efficiency of treatment to mitigate pollutant impacts by binding to sediments or biological-uptake by plants and bacteria of the existing wetlands. In order to prevent environmental degradation, ponds must incorporate multiple design-storms and safely accommodate the 100-year storm event (*EPA Storm Water Technology: Wet Detention Ponds*, U.S. EPA 832-F-99-048, September 1999, attached as Exhibit 57).

Neither the EA nor the Municipal Consent Report identify a specific detention pond type, pollutant removal goals, mosquito management, a maintenance schedule to ensure the proper operation of the pond or a program for testing and performance monitoring. Metropolitan Mosquito Control District personnel should be involved in the design and maintenance of storm water treatment proposals that include a permanent source of standing water (M. Metzger, Vector-Borne Disease Section, CA Dept of Health Services, *Managing Mosquitoes in Stormwater Treatment Devices*, Pub. 8125, 2004, attached as Exhibit 58). An EIS should be prepared to provide quantitative information pertaining to runoff, waterborne pollution and mosquito control and to specify design, maintenance and testing to assure performance of water treatment that protects receiving waters from further impairment.

B. Flooding

An EIS is also required to address concerns regarding flooding issues in the I-35W corridor. Flooding, resulting from stormwater runoff during the 1997 season, impacted I-35W freeway surfaces and nearby neighborhoods, resulting in geysers in excess of 50 feet in height at the I-35W tunnel. The City is concerned that standing water on the freeway and associated neighborhood flooding may both be exacerbated by the additional impervious surface inherent in the I-35W and TH62 expansion and that the EA has failed to evaluate this flooding risk and appropriately provide for its mitigation.

Although the increase of impervious surface of over 58 acres is acknowledged in the EA (p. 60), Mn/DOT and FHWA make no effort to calculate the volumes of increased

stormwater runoff represented by this increased surface under various conditions or to estimate what volume of increased runoff could be accommodated under various ponding scenarios. Mn/DOT only recently convened (July 13, 2004) stakeholders to discuss alternatives to address flooding at the I-35W Tunnel and St. Mary's Tunnel and continued Task Force study of this issue is projected to occur through at least April 2005. (See I35W Tunnel and St Mary's Tunnel Study Task Force 7/13/04 Memo, Exhibit 59).

There is little indication in either the EA or the municipal consent submission that funds to provide the best alternative in preventing freeway or neighborhood flooding exist. Vague references to a "study to identify solutions to capacity issues" with "designs to current highway standards and evaluated for larger storm events to prevent flooding" and "other flood protection measures evaluated during final design" that "will be completed in 2005" (EA, p. 61) are insufficient to provide the "hard look" at flooding issues required in environmental review. An EIS is needed to analyze the impacts of increased surface on flooding and arrive at a mitigation strategy to ensure that increased runoff from the proposed highway expansion project does not exacerbate flooding and water quality impairment during heavy rains.

C. Impacts from Hazardous Waste Sites

The EA identified a number of hazardous sites that will be impacted by Crosstown Commons construction and identifies several of them as "high risk" sites. (EA, p. 43, Table 7). Yet, neither the EA nor the municipal consent proposal provide any due diligence investigation pertaining to what may be needed to remediate these sites and avoid impacts on residents, surface water and groundwater quality.

The project fails to describe a budget for remediation of the polluted sites or a strategy to prevent groundwater and surface water contamination. In particular, concerns are raised about the 60th Street and 1st Avenue site, which is in the proposed pond expansion area. The implication in the EA that the site can be thoroughly "investigated" by a review of MPCA project files and collection and laboratory analysis of soil and groundwater samples, "if necessary" (EA, p. 44) provides insufficient information to determine the nature of the contamination and the remediation to protect public health and the environment. A thorough investigation of sites and a contingency budget for comprehensive remediation is required before this project can move forward.

D. Risk of Drinking Water Contamination

The EA recognizes that stormwater runoff will be diverted to Legion Lake, (EA, p. 62) but does not mention the fact that the City of Richfield obtains its municipal drinking water from wells at Legion Lake. Based on discussions with the Minnesota Pollution Control

Agency and ongoing responsibilities pertaining to non-point source pollution, the City of Minneapolis believes that a detailed analysis of the risk of drinking water contamination and means by which that contamination will be prevented must be provided before the I-35W and TH62 expansion project moves forward.

E. Wetland Impacts

The EA acknowledges that the I-35W and TH62 expansion project will result in 0.87 acres of wetland impacts, which is equivalent to 17 percent of the wetlands in the project area. (EA, p.52, Table 9). Specific wetlands impacts include excavation of Ferdinand Pond, extension of a pier on the edge of the Minnehaha Creek floodplain and expansion of the bridge over Minnehaha Creek (EA, p. 54). These wetlands include both Type 3 (wetland W-A and Ferdinand Pond) and Type 4 wetlands (wetland W-B) (*see* EA, p. 52) that would fall under the jurisdiction of the Wetland Conservation Act (WCA) and would likely be considered a water of the United States under the jurisdiction of the Corps of Engineers Section 404 regulatory program.

Given the significance of the wetland loss contemplated by the project and the risk of further impairment of receiving waters if wetlands are compromised, further analysis is needed to determine whether wetland loss can be prevented and biofiltration preserved.

7. An EIS is Required to Provide a Thorough Analysis of Other Environmental Impacts and Applicable Mitigation

A. Inadequate Analysis of Noise

The EA acknowledges that state noise standards apply to all roads in Minneapolis and to the I-35W and TH62 in the cities of Richfield and Edina. (EA, p. 94). The EA further acknowledges that “construction of the project will result in increases in noise due to increased traffic, shifting of roadways closer to residences and removal of existing noise walls,” (EA, p. 116) and that “neighborhoods adjacent to the project corridor will be exposed to noise levels that exceed both state standards and federal noise abatement criteria.” (EA, p. 114).

Minnesota Rules prescribe daytime and nighttime noise standards “on the basis of present knowledge for the preservation of public health and welfare.” Minn. R. 7030.0040, Subp. 1. During the day (from 7:00 a.m. to 10:00 p.m.), in residential areas, noise cannot exceed 60 decibels for more than 50 percent of the time or 65 decibels for more than 10 percent of the time. At night (from 10:00 p.m. to 7:00 a.m.) in residential areas, noise cannot exceed 50 decibels for more than 50 percent of the time or 55 decibels for more than 10 percent of the time. Minn. R. 7030.0040, Subp. 2, EA p. 94.

The EA acknowledges that, even with mitigation, the proposed highway expansion will result in daytime noise violations in numerous locations. (EA, pp. 97-100, Table 25).

Interestingly, the EA fails to disclose the nature and extent of violations of State nighttime noise standards that will take place under Build conditions, despite proposed mitigation. (EA, pp. 101-104, Table 26).

It is clear from the EA that, without mitigation, the Full Build project would result in nighttime noise violations at every site monitored. Some of these noise violations could only be characterized as severe. The EA recognizes that an increase of 10 decibels is heard by humans to be twice as loud. (EA, p. 92). Mn/DOT considers an increase of 5 decibels or greater “a substantial noise level increase.” (EA, p. 95). In almost every one of the sites modeled, noise from the 2030 Build project without mitigation would be heard as more than twice the State nighttime noise standard. (EA, pp. 103-104, L10 greater than 65 or L50 greater than 60). In at least 25 of the sites modeled, the increase between existing nighttime noise and nighttime noise under Full Build conditions without mitigation would exceed 5 decibels, causing a “substantial” noise level increase. (EA, pp. 101-104, Table 26).

With these facts of record, it is critical that an EIS analyze in detail the most effective noise mitigation strategies and explain the levels of nighttime noise that will persist despite mitigation to disturb the rest of neighborhood residents. It is a matter of concern to propose doubling perceived nighttime noise in an urban residential neighborhood. An EIS is also needed to ensure that “all reasonably available noise mitigation measures are employed to abate noise,” since highway noise can only be exempted from state agency standards if all such mitigation measures are employed. Minn. Stat. 116.07, subd. 2a.

In analyzing the most effective noise mitigation strategies, Mn/DOT and FHWA should consider both the standards set for design in the I-35W Corridor Aesthetic Design Guide (April 2001) (“Design Guide”) attached as Exhibit 60 and the regional standards set in the Mitigation & Enhancements I-35W Access Project (“Access Project Report”), attached as Exhibit 61, both of which express a preference for concrete over wood noise walls in most applications. Mn/DOT and FHWA should also consider recent research demonstrating that concrete noise walls have a longer service life and require less maintenance to avoid both noise leak functional impairment and aesthetic degradation. Given the service life of materials, Illinois research has demonstrated that the life cycle costs for either material are similar. (See D. Kay, “Service Life of Highway Noise Barriers,” *ASC Proceedings of the 37th Annual Conference*, University of Denver- Denver, Colorado, April 4-7, 2001, pp.179-186, attached as Exhibit 62).

B. Inadequate Analysis of Impacts on Vegetation

According to the EA, the acreage for lawn and landscaping will be reduced by nearly 59.6 acres, representing nearly a 50 percent reduction in this type of ground cover in the area

of the proposed project. (EA, p. 45) Although the EA acknowledges that, “The proposed improvements will result in the removal of existing trees along the corridor,” (EA p. 46) this impact is never quantified. The number, size and location of trees that will be removed by the project is not provided. No estimate is made of the reduction in carbon sequestration that will result from the removal of these trees. No specific tree replacement plan to mitigate the impacts to the environment from the removal of trees is included anywhere in the draft EA. This information should be provided in an EIS both to assess visual impacts of the project and to evaluate impacts on carbon sequestration.

C. Inadequate Analysis of Impact on Park Land

The EA acknowledges that the Minnehaha Parkway Historic District may be adversely affected by the expansion of the I-35W bridge over the Minnehaha Parkway. (EA, p. 119). The project significantly expands the freeway where it crosses Minnehaha Creek Parkway, increasing the number of lanes from 6 to 10. Additional footings will be added to accommodate the wider bridge deck. A much larger area will be put in shade. Existing plant communities may die and thus there is a strong potential for increased erosion next to the Creek especially during flood times. The EA states that Mn/DOT “is consulting” with various parties to determine how to mitigate effects on Minnehaha Parkway, but does not specify what steps will be taken to avoid significant environmental impacts on park resources. A promise of consultation is insufficient to meet the requirements of NEPA or MEPA; an EIS should detail specific actions and investments that will mitigate environmental harm.

The EA further states that no Section 4(f) impacts are anticipated due to widening of I-35W because all work will be within Mn/DOT right of way and the project does not affect the park in a manner that substantially interferes with its use. (EA, p. 121). There is no detailed analysis in the EA of either erosion and flooding or of visual impacts to support this assumption. Federal law requires a detailed analysis and specific findings for any project which requires “the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, State or local significance.” *See* 49 U.S.C. 303(c), 23 U.S.C. 138. The expanded bridge deck is a use of park land. This is true, whether or not, the work takes places in existing right of way. The expansion of the freeway is also a constructive use of park land. *See* 23 C.F.R. 771.135. As a result, a finding that there is no prudent and feasible alternative to using the park land is required. Additionally, for the project to move forward, there must be a finding that the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and refuge. An EIS is necessary to provide a factual basis for any such findings.

D. Inadequate Analysis of Impact on Neighborhood Traffic and Access

The EA gives very little consideration of the impacts that I-35W and its expansion have on the movement of persons throughout the Minneapolis community, as pedestrians, cyclists and drivers.

The proposed project has the potential for adverse impacts due to loss of access and increased volumes of automobile traffic on local streets. Expansion to five lanes on I-35W, particularly when there are only 4 lanes north of 42nd Street, has the potential to deny Minneapolis residents reasonable access to northbound I-35W at 46th Street. Under the proposed project, access from Lyndale to I-35W and access from Portland to westbound TH62 and to southbound I-35W would no longer be possible. Some traffic currently on local streets is likely to use the freeway, but travel to and from the 46th Street, Diamond Lake Road, 60th Street and Lyndale Avenue interchanges will increase, potentially creating adverse social and economic impacts. (See Minneapolis Public Works Department, *Receive and File Memo re Mn/DOT I35W "Crosstown" Municipal Consent Submittal and Related Matters*, August 10, 2004, attached as Exhibit 11, p. 3). In other contexts, traffic control devices, parking bays and other devices have been proposed to mitigate the impacts of I-35 traffic on local streets. See Access Project Report, *supra*, Exhibit 61, pp. 3-1 to 3-5. The EIS should evaluate traffic access and traffic management both during the period of construction and once the project has been completed.

The only reference to pedestrian or bicycle travel in the EA is found on page 122, where Mn/DOT and FHWA propose removing the pedestrian walkway over I-35W at 58th Street and suggest that sidewalk widths will be 10 to 12 feet on underpass bridges and 8 feet wide on overpass bridges, except for the 46th Street overpass bridge which will have 10-foot sidewalks. The EA acknowledges that bicycle trails in Richfield will be impacted during construction, but makes no other reference to the need to provide bicycle access. The EA makes no provision for shoulders to permit bicycle traffic to cross over or under the barrier posed by I-35W.

The regional Access Project Report recognized that construction of I-35W had impaired pedestrian and bicycle access throughout Minneapolis and concluded, "Maintaining the pedestrian grid is as essential as maintaining the vehicular grid.. . It is essential that new bridges over and under the freeway encourage pedestrian movement." Access Project Report, *supra*, Exhibit 61 at p. 4-1. The Access Project Report recommended 15-foot sidewalks at bridges over and under I-35W, construction of a new pedestrian bridge over I-35W and amenities including lighting, landscaping, crosswalks and medians to mitigate the impact of I-35W on the pedestrian environment. *Id.*, p. 4-1. The Report also recommended on-street

bicycle routes with exclusive lanes that have been signed and striped. *Id.*, p. 4-4. The EIS for the project should analyze impacts of I-35W on pedestrian and bicycle connections in the community and design to mitigate those impacts.

E. Inadequate Analysis of Visual Impacts

The EA acknowledges that both travelers and neighbors will be affected by the visual impacts of the proposed project. (EA, p. 123). Visual impacts will include reduction in landscaping acreage and trees (EA, pp. 45-46, 124), increase in acreage of paved surface (EA, pp. 59-60), construction of wider and higher bridge decks (e.g. EA, pp. 122,124), construction of retaining walls and noise barriers (EA, p. 124), alteration of ponds and wetlands (EA, pp. 124-125) and location of the roadway closer to residences (EA, p. 116).

The EA fails to identify which “landscaping” will be removed by the project and provides no illustrations or models from which it could be determined the impact of the sheer size of the proposed changes or how that scale of construction would be experienced by residents now in much closer proximity to the highway corridor. An EIS is needed to provide visual representations of the project so that its impacts can be considered and mitigated. It is clear from review of the 2001 Design Guide for the I-35W Corridor, attached as Exhibit 60, that Mn/DOT has the capacity to provide documentation of the visual impacts of the proposed project.

F. Inadequate Provision for Mitigation of Environmental Impacts

It is similarly unclear from the EA what Mn/DOT and FHWA plan to do in order to mitigate the impacts identified above pertaining to noise, traffic, multi-modal access, and adverse aesthetic impacts of the proposed I-35W and TH 62 highway expansion. The EA states that Mn/DOT worked with other stakeholders to develop a Design Guide for the I-35W, which “documents the decisions that Mn/DOT and the public found preferable.” (EA, p. 125). But the EA suggests that the mitigation advised in the Design Guide will only be provided according to Mn/DOT’s cost participation policy. (EA, p. 126, 135).

The Municipal Consent Report submitted by Mn/DOT April 16, 2004 (attached as Exhibit 2) suggests that Mn/DOT’s financial participation in mitigation is likely to be minimal. Mn/DOT’s participation in improvements to mitigate adverse visual impacts of the proposed project are proposed to be limited to the following: 3% for most project items, such as grading, paving, etc.; 4% for noise walls; 5% for retaining walls; 7% for bridges, except the Minnehaha Parkway overpass; 15% for the Minnehaha Parkway overpass. (*Id.*, Exhibit 2, p. 13).

There is no applicable law suggesting that a state transportation department can propose a federal-aid highway project and then leave it up to the local jurisdiction to mitigate

its harms, 23 U.S. C.109 (h) states that adverse economic, social and environmental effects in federal-aid highway projects should be “fully considered” and that final decision on such projects should be made “in the best overall public interest” taking into consideration, among other interests “the costs of eliminating or minimizing such adverse effects.” To the extent that various design elements: including traffic management on local streets, pedestrian and bicycle access, noise walls and retaining walls of appropriate heights and materials, landscaping, bridge and tunnel engineering and design amenities are needed to eliminate or mitigate adverse effects of traffic, constraints on access, noise and visual impacts, those design elements should be detailed and budgeted for as part of the I-35W and TH62 expansion project. In the EIS for the project, Mn/DOT and FHWA should include a description and visual depiction of the measures proposed to eliminate or minimize adverse impacts, including visual impacts of the project.

8. Further Environmental Review and Public Comment is Required Due to Inadequacies of the “Open House” Hearing Process.

Minneapolis personnel received complaints about the “open house” on July 22, 2004 from citizens who stated that this hearing format provided them with no opportunity to learn of concerns others might have about the project and no real hearing for them to voice their concerns and influence a decision.

Title 23 U.S. C. §128, requires that any State transportation department which submits plans for an Interstate System project passing through any city, must certify that “it has held public hearings at a convenient location” or has afforded the opportunity for such hearings and has filed a transcript of such “hearings.”

In the recent Nevada case pertaining to expansion of U.S. 95, the District Court allowed FHWA substantial latitude to decide what constitutes a public hearing and did not invalidate the process. However, the Court’s critique suggests that the “open house” procedure may not serve the legislative purpose of 23 U.S.C. § 128:

[T]he legislative history and the purposes underlying §128 raise serious questions as to whether “open house” style meetings give full force to the purposes underlying §128’s public hearing requirement. Legislative history suggests Congress had a preference for “quasi-legislative” and “town hall” formats under §128. H.R. Rep. No. 91-1554 (1970), *reprinted in* 1970 U.S. C. C. A. N. 5392, 5395-5397; *see also Lathan*, 506 F. 2d at 691, (quoting H.R. Rep. No. 91-1554). . .

Congress enacted §128 “primarily for the benefit of the local residents whose homes and lives may be affected by a national highway construction project.” *D.C. Fed’n of Civic Ass’ns, Inc. v. Volpe*, 434 F. 2d 436, 440 (D. C. Cir. 1970). Public hearings fulfill two major congressional goals. First, the hearings

are designed to make sure that state planning officials are apprised of the nature and depth of local residents' feelings about the wisdom of a particular project." *D.C. Fed'n*, 434 F. 2d at 440, *see also* H.R. Rep. No. 91-1554 (1970), *reprinted in* 1970 U.S. C. C. A. N. 5392, 5396. . Second the hearings "provide a formal means of documenting, ascertaining, testing and filtering all possible environmental, community, and transportation elements" related to highway projects to ensure effective agency decision-making. . H.R. Rep. No. 91-1554 (1970), *reprinted in* 1970 U.S. C. C. A. N. 5392, 5395.

The open house format dilutes the achievement of both of these objectives. FHWA's open house format limits the opportunity for citizens to "directly and publicly" confront agency decision-makers with opposing views. *D.C. Fed'n*, 434 F. 2d at 441. (emphasis added). Open houses diffuse the "public" character of the hearings, producing instead many private meetings between agency representatives and individual member of the public. Citizens do not hear every question, comment, or concern voiced by other citizens, nor do they hear the agency's response. Consequently, concerned citizens lose the ability to inform and influence their fellow citizens' views. Additionally, the open house format diffuses the pressure that comes from a direct and public challenge to the agency from a live audience member.

In the Court's view, the purpose of providing a record from which informed agency decision making can be made is weakened by the open house format. No verbatim record of the proceedings is made under this procedure. Consequently, neither the public nor agency decisionmakers acquire a complete picture of the interaction between the public and the agency. Moreover without a verbatim transcript, agency decision-makers are ill equipped to ensure state transportation agencies fulfill their statutory duty to "consider the environmental, economic, and social effects of the project on the selected location." 23 U.S.C. §128(a). . .

Sierra Club v. USDOT, *supra*, 310 F. Supp. at 1208-1209

CONCLUSION

The EA approved by Mn/DOT and FHWA for the proposed expansion of I-35W and TH62 provides an inadequate analysis of alternatives and discloses the potential for significant environmental and human health impacts, requiring the analysis of harms and mitigation provided by an EIS. An EIS is needed to accomplish the following:

1. Provide a fully-developed Build Alternative with Bus Rapid Transit in keeping with Minnesota legislation, policy and mitigation of air emissions impacts.
2. Analyze I-35W expansion plans as a connected whole through downtown Minneapolis.

3. Analyze congestion reduction benefits and externalities costs of the project using modeling that includes induced travel effects.
4. Analyze mobile source air emissions from the project based on increased VMT and current U.S EPA- approved MOBILE6.1 and MOBILE6.2 emissions models.
5. Analyze mobile source air emissions in terms of regional ozone and in terms of fine particle and mobile source air toxics impacts adjacent to the proposed highway expansion.
6. Analyze whether vehicle fine particle emissions and mobile source air toxics have a disproportionate adverse impact on low-income and minority populations living, studying and worshipping adjacent to the proposed highway expansion.
7. Analyze impacts of the proposed project on surface, ground and drinking water quality, flooding and wetlands preservation and develop strategies to mitigate these impacts.
8. Analyze noise, traffic, multi-modal access and aesthetic impacts of the project and means to avoid environmental injustice and provide for mitigation of harms within the scope of any proposed project.
9. Provide an opportunity for citizens to express their concerns and apprise agency officials about their views pertaining to the proposed federal highway project.

The City of Minneapolis respectfully requests that a finding be made under applicable state and federal law that an Environmental Impact Statement is required.

Respectfully Submitted,

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EXHIBITS TO COMMENTS OF THE CITY OF MINNEAPOLIS – 8/16/04
ENVIRONMENTAL ASSESSMENT
Interstate 35W and Highway 62
State Project: 2782-281
Minnesota Project: IM 0353(287)

PROJECT FILE

- Exhibit 1 April 16 letter from P. Hughes, Mn/DOT to K. Fabry, Minneapolis Department of Public Works.
- Exhibit 2 I-35W & HWY 62 Crosstown Commons Reconstruction Municipal Consent Report.
- Exhibit 3 Layouts and profiles submitted with Municipal Consent Report
- Exhibit 4 Task I Report, Recommended BRT Configuration for the 35W/Highway 62 Interchange, Submitted to Mn/DOT by the URS Consulting Team April 2004
- Exhibit 5 Minneapolis City Council Resolution 2004R-035, January 30, 2004
- Exhibit 6 April 15, 2004 City letter from Mayor R.T. Rybak and City Council Members to Commissioner C. Molnau.
- Exhibit 7 May 3, 2004 letter from Commissioner C. Molnau to Mayor R.T. Rybak and City Council Members.
- Exhibit 8 May 19, 2004 letter from P. Ginder, Office of the Minneapolis City Attorney to J. Griffith, Mn/DOT re Draft Environmental Assessment.
- Exhibit 9 June 28, 2004 letter from P. Ginder, Office of the Minneapolis City Attorney to T. O’Keefe, Mn/DOT re Municipal Consent.
- Exhibit 10 July 20, 2004 letter from T.O’Keefe, Mn/DOT to P. Ginder, Office of the Minneapolis City Attorney re Municipal Consent.
- Exhibit 11 Minneapolis Public Works Department, Receive and File Memo re Mn/DOT I35W “Crosstown” Municipal Consent Submittal and Related Matters, August 10, 2004
- Exhibit 12 Excerpt from Mn/DOT and FHWA, *Final Environmental Impact Statement for I-35W “Preferred Project,”* approved January 19, 1995.
- Exhibit 13 Excerpt from Mn/DOT and FHWA, *I-35W “Deferred Project” Addendum to the Final Environmental Impact Statement,* December 1996.
- Exhibit 14 Moratorium on “Deferred Project,” Minn. Session Laws 2001, Ch. 8, Sec. 2.
- Exhibit 15 Legislation Requiring BRT Study, Minn. Session Laws 2003, Ch. 19, Art. 2, Sec. 71.

MODELING

- Exhibit 16 Fulton, et al., *A Statistical Analysis of Induced Travel Effects in the U.S. Mid-Atlantic Region,* presented at the 79th Annual Meeting of the Transportation Research Board, January 2000, Paper no. 00-1289.
- Exhibit 17 Noland, Cowart, *Analysis of Metropolitan Highway Capacity and the Growth in Vehicle Miles of Travel,* presented at the 79th Annual Meeting of

- the Transportation Research Board, January 2000, Paper no. 00-1288
- Exhibit 18 Noland, *Relationships Between Highway Capacity and Induced Vehicle Travel*, accepted for presentation at the 78th Annual Meeting of the Transportation research Board, January 1999, Paper no. 991069.
- Exhibit 19 USEPA, *Induced Travel: A Review of Recent Literature with a Discussion of Policy Issues*, <http://www.epa.gov/otaq/transp/intrav13.pdf>
- Exhibit 20 DeCorla-Souza and Cohen, *Accounting for Induced Travel in Evaluation of Urban Highway Expansion*, FHWA web site White Paper abridged from a paper presented for the 77th Meeting of the Transportation Research Board in January 1998, Paper no. 980132.
- Exhibit 21 U.S. EPA February 24 Memorandum, "Policy Guidance on the Use of MOBILE6.2 and the December 2003 AP-42 Method for Re-Entrained Road Dust for SIP Development and Transportation Conformity," excerpt.
- Exhibit 22 U.S. EPA, *User's Guide to MOBILE6.1 and MOBILE6.2 Mobile Source Emission Factor Model*, August 2003, excerpt.

AIR QUALITY

- Exhibit 23 Sonoma Technology, Inc. *Preliminary Assessment of Ozone Air Quality Issues in the Minneapolis/St. Paul Region*, October 10, 2002, excerpts.
- Exhibit 24 Gent, et al, "Association of Low-Level Ozone and Fine Particles With Respiratory Symptoms in Children With Asthma," *Journal of the American Medical Association*. 2003; 290:1859-1867.
- Exhibit 25 Friedman, et al., "Impact of Changes in Transportation and Commuting Behaviors During the 1996 Summer Olympic Games in Atlanta on Air Quality and Childhood Asthma," *Journal of the American Medical Association*, 2001; 285:897-905
- Exhibit 26 MPCA, *Review of Xcel Energy's Metropolitan Emission Reduction Proposal*, December 30, 2002
- Exhibit 27 Data from Air Quality Index Summarized by Minnesota Pollution Control Agency, June 2004.
- Exhibit 28 MPCA, *Air Quality in Minnesota Problems and Approaches*, 2001 Legislative Report, App. B excerpt.
- Exhibit 29 Pope et al., "Lung Cancer, Cardiopulmonary Mortality, and Long-term Exposure to Fine Particulate Air Pollution," *Journal of the American Medical Association*, 2002; 287(92) 1132-1141
- Exhibit 30 Zhu, et al., "Concentration and Size Distribution of Ultra-fine Particles Near a Major Highway. *Journal of the Air and Waste Management Association*. 2002; 52:1032-1042.
- Exhibit 31 Zhu, et al., "Study of Ultra-fine Particles Near a Major Highway with Heavy-duty Diesel Traffic, *Atmospheric Environment*. 2002, 36:4323-4335.
- Exhibit 32 Kittleson et al., "Nanoparticle Emissions on Minnesota Highways," *Atmospheric Environment*, 2004; 38:9-19.

- Exhibit 33 Kittleson, et al. "On-Road Exposure to Highway Aerosols.1. Aerosol and Gas Measurements," *Inhalation Toxicology*, 2004, 16 (suppl.1) 1-9.
- Exhibit 34 Venn et al., "Living Near a Main Road and the Risk of Wheezing Illness in Children," *Am. J. Respir. Crit. Care Med.*, 2001,164:2177-2180.
- Exhibit 35 Lin et al, "Childhood Asthma Hospitalization and Residential Exposure to State Route Traffic," *Environmental Research*, 2002; 88 (2) 73-81.
- Exhibit 36 Sierra Club, *Highway Health Hazards*, 2004.
- Exhibit 37 *Control of Emissions of Hazardous Air Pollutants From Mobile Sources*, 66 Fed. Reg. 17230-17273 (Mar. 29, 2001) excerpt.
- Exhibit 38 MPCA, *Health Effects of Motor Vehicle Pollution*, March 2000.
- Exhibit 39 MPCA, *Air Quality in Minnesota Problems and Approaches*, 2001 Legislative Report, App. D, excerpt.
- Exhibit 40 Minnesota Department of Health, *Comparative Risks of Multiple Chemical Exposures*, July 2000, excerpt.
- Exhibit 41 MPCA Staff Report, *Stage One Vapor Control in Minnesota*, September 19, 2001.
- Exhibit 42 Pearson, et al., "Distance-weighted Traffic Density in Proximity to a Home is a Risk Factor for Leukemia and Other Childhood Cancers. *Journal of Air and Waste Management Association*, 2000; 50:175-180.
- Exhibit 43 California *MATES II*, Executive Summary, <http://www.aqmd.gov/matesiidf/matesoc.htm>
- Exhibit 44 Resource Systems Group, *Review of Exposure to Toxic Air Pollutants from Mobile Sources and the Impact of the Expansion on US 95 in Las Vegas, Nevada*, December 21, 2001.
- Exhibit 45 Knox et al., "Hazard Proximities of Childhood Cancers in Great Britain from 1953-1980, *J. Epidemiol. Community Health* 1997; 51(2):151-9.
- Exhibit 46 Ritz, "Residential Proximity to Traffic and Adverse birth Outcomes in Los Angeles County, California, 1994-1996," *Environ. Health Perspect.* 2003, 111(2)207-16.
- Exhibit 47 Environmental Health & Engineering, *Preliminary Toxicological Review of Roadway Traffic Pollution*," EG&E Report #11988, May 11, 2001.
- Exhibit 48 U.S. EPA Office of Transportation and Air Quality, *Bibliography of Near Roadway Health Effects and Exposure Studies*, August 2004.

ENVIRONMENTAL JUSTICE

- Exhibit 49 Executive Order 12888 Environmental Justice of February 11, 1994
- Exhibit 50 Estimates of Population and Land Use Within Specified Distances of I-35W and TH62 Expansion Project, City of Minneapolis, August 2004
- Exhibit 51 Black Church Ministries web page

WATER QUALITY

- Exhibit 52 MPCA 2002 303(d) Impaired List, Diamond Lake and Mississippi River
- Exhibit 53 Kayhanian et al., *Characteristics of Stormwater Runoff from Highway Construction Sites in California*, presented in Transportation Research Record 1743, Paper No. 01-3181, National Academy Press.

- Exhibit 54 Kayhanian et al., *Characteristics of Stormwater Runoff from Caltrans Facilities*, Presented at Transportation Research Board 81st Annual Conference, Washington, D.C. January 2002.
- Exhibit 55 Lenhart, "Methods of Sizing Water Quality Facilities," *Stormwater*, July/August 2004.
- Exhibit 56 C. Brzozowski, "Maintenance Goes Underground," *Stormwater*, July/August 2004.
- Exhibit 57 U.S.EPA, *Storm Water Technology: Wet Detention Ponds*, EPA 832-F-99-048. (September 1999)
- Exhibit 58 M. Metzger, Vector-borne Disease Section, Cal. Dept. of Health Services, *Managing Mosquitoes in Stormwater Treatment Devices*, Pub. 8125 (2004)
- Exhibit 59 I35W Tunnel and St Mary's Tunnel Study Task Force 7/13/04 Memo.

DESIGN & MITIGATION

- Exhibit 60 I-35W Corridor Aesthetic Design Guide between I-494 and 42nd Streets in Richfield and Minneapolis (April 2001)
- Exhibit 61 Mitigation & Enhancements I-35W Access Project (November 2002)
- Exhibit 62 D. Kay, "Service Life of Highway Noise Barriers," *ASC Proceedings of the 37th Annual Conference*, University of Denver- Denver, Colorado, April 4-7, 2001, pp. 179-186

U.S. 95 CASE

- Exhibit 63 *Sierra Club v. Federal Highway Administration et al.*, (9th Cir. No. 04-16155) Order filed July 27, 2004
- Exhibit 64 *Sierra Club v. United States Department of Transportation*, 310 F. Supp. 2d 1168 (D. C. Nev. 2004)
- Exhibit 65 Letter of D. James, U.S. EPA Region IX to Nevada Department of Transportation dated January 3, 2000, in Vol. 33 of Administrative Record, *Sierra Club v. USDOT* (U.S.D. C. Nev.) No. CV-S-02-0578-PMP-RJJ.