

PUBLIC MEETING RESPONSE REPORT ON TxDOT IH 10 PROJECT PLAN

June 3, 2003

Comments on the Katy Corridor Coalition (KCC) Concept

Comment #1-1 (Commentors 5, 6, 7, 10, 11, 12, 14, 16, 22, 24, 25, 26, 27, 28, 30, 34, 36, 38, 39, 41, 42, 44, 45, 46, 49, 51, 53, 55, 56, 57, 58, 61, 64, 65, 68, 69, 70, 70, 72, 73, 75, 76, 77, 79, 81, 82, 83, 84, 85, 87, 88, 90, 94, 95, 97, 99, 100, 101, 102, 108, 112, 113, 114, 116, 117, 122, 123, 128, 129, 130, 131, 132, 135, 136, 137, 140, 142, 143, 144, 145, 146, 147, 148, 151, 152, 153, 154, 156, 162, 166, 167, 168, 169, 173, 174, 176, 178, 180, 182, 186, 188, 189, 190, 191, 197, 198, 200, 201, 202, 203, 205, 207, 209, 213, 214, 216, 217, 218, 219, 223, 224, 227, 232, 236, 238, 243, 248, 249, 251, 253, 256, 258, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 273, 274, 275, 278, 279, 281, 284, 285, 287, 288, 289, 292, 294, 295, 296, 297, 299, 300, 301, 302, 304, 306, 307, 309, 310, 312, 314, 315, 316, 317, 319, 320, 321, 322, 324, 326, 329, 330, 332, 334, 335, 337, 338, 339, 341)

I support the Katy Corridor Coalition (KCC) concept as an excellent alternative to the proposed TxDOT IH 10 Project Plan.

Response

The IH 10 preferred alternative was adopted as part of the Major Investment Study (MIS) completed in October 1997. The environmental impacts of the IH 10 preferred alternative were evaluated as part of the Final Environmental Impact Statement (FEIS), which was approved on August 30, 2002. The selection of the preferred alternative was not reconsidered in the FEIS Reevaluation. The KCC concept, which was first presented in January 2003, is not a timely suggestion.

Depressing the freeway under the KCC concept would require significant additional excavation amounting to removal of almost 9 million cubic yards of soil. The massive amount of excavation required by the KCC concept would require an additional three years for construction and would significantly increase air emissions during excavation through additional dust generation and the exhaust emissions of the heavy construction equipment used for excavation and removal of the massive amounts of soil.

The addition of approximately 17.6 miles of concrete retaining walls along the entire length of the project from Beltway 8 to Washington Avenue would require approximately 572,000 additional cubic yards of concrete. Constructing the retaining walls, supported by drilled shafts, would require significant increases in drilled shafts for walls and bridge structures.

Diverting streams below the depressed freeway would require construction of extensive structures and pump stations to meet certain flood events. However, even these complex and expensive potential structures would not necessarily provide protection from all flood events commonly experienced and reasonably anticipated in the Houston area.

To meet these and the other significant changes that would be required under the KCC concept, the cost of the TxDOT IH 10 Project Plan would increase by an estimated \$500 million above the current estimate for the same section of the TxDOT IH 10 Project Plan. Additional right-of-way (ROW), moreover, would need to be acquired under the KCC concept at significant additional cost and impact to the local community.

Implementation of the KCC concept would require that all underground utility (e.g., water lines, sewer lines, electric cables, gas pipelines, telephone cables, etc.) relocations be completed in advance, rather than concurrently as under the TxDOT IH 10 Project Plan. Phasing of construction activities under the KCC concept would also need to be sequential, rather than concurrent as planned

Under the KCC concept, where utility lines cross IH 10, the utility lines would have to be relocated below the depressed roadway. Such relocation would be extremely costly and may require pump stations for gravity dependent systems such as sewer lines. As an alternative, the utilities could be elevated above grade, although this would significantly reduce the possible aesthetic benefits of the KCC concept. See the Response to Comment 1-7.

Because of the significantly increased cost, significant delays, inherent engineering difficulties and the absence of significant benefits (discussed in the Responses to Comments 1-1 through 1-14), TxDOT concludes the KCC concept is not a viable alternative to the TxDOT IH 10 Project Plan. Nor would the KCC concept, because drainage problems make that design inherently flood prone, provide users of IH 10 with a transportation facility that would serve as an accessible hurricane evacuation route.

Comment #1-2 (Commentor 24)

The Katy Corridor Coalition (KCC) concept is superior to the design of the TxDOT IH 10 Project Plan because it will offer significant reductions in urban air pollution.

Response

The proposed project is part of the current-air-quality-standard-conforming Houston Galveston 2022 Metropolitan Transportation Plan (MTP) and Fiscal Year 2002-4 Transportation Improvement Program (TIP). Part of the MTP analysis considered and quantified the impact the TxDOT IH 10 Project Plan will have on air quality in the Houston area. This MTP analysis has determined that the TxDOT IH 10 Project Plan will not produce additional air quality impacts in the Houston area.

In addition, the U. S. Environmental Protection Agency (EPA) reviewed the FEIS for the TxDOT IH 10 Project Plan and had no negative comments regarding the potential impacts to air quality.

The FEIS reevaluation also concludes that there will be no violations of the EPA air quality standard for carbon monoxide or ozone (the only air contaminant for which Houston is currently in nonattainment) as a result of the TxDOT IH 10 Project Plan.

Further, available scientific research indicates that a design which depresses the freeway below grade may not be the best most effective design for reducing the impact of emissions from vehicle traffic using IH 10. At-grade freeways can take advantage of the air flow turbulence created by passing traffic to help disperse emissions from passing vehicles, whereas the beneficial effect of vehicle-produced turbulence can be lost in depressed roadway designs. Depending on wind conditions and design specifics, depression of a highway can create vortices, which can re-circulate and concentrate emissions within the depression, potentially exposing motorists to higher concentrations of pollutants than would have been the case with an at-grade facility design.

Additionally, with a depressed freeway design, emissions would ultimately leave the depressed roadway. As emissions would spill over the top of the freeway depression, the emissions would be dispersed by the existing surface winds. Under this phenomenon, the pattern of air emissions for a depressed structure resembles that of an at-grade structure, except that the depressed structure lacks the otherwise beneficial effect of the vehicle-induced turbulence. See *Modifications of Highway Air Pollution Models for Complex Site Geometries, Volume I, Data Analysis and Model Development, FHWA RD-02-036 2002; Modifications of Highway Air Pollution Models for Complex Site Geometries, Volume II, Wind Tunnel Test Program, FHWA RD-02-037 2002; and Traffic Pollution Effects of Elevated, Depressed, and At-Grade Level Freeways in Texas, Texas Transportation Institute, Research Report 1327-4 1997.*

Neither the Commentor nor the KCC concept offers any specific explanation as to how the depressed design will result in a reduction of urban air pollution. Nor is there any explanation offered under the KCC concept as to the ultimate dispersion, disposal or other disposition of any contaminants, assuming any would be trapped by vegetation in the right-of-way.

Regarding impacts of vegetation in the right-of-way on air pollution, neither the Commentor nor the KCC concept offers any quantification of the air pollutants that will be deposited on the leaves of vegetation, nor any explanation of the volume and type of vegetation required. Nor is there any explanation offered under the KCC concept as to the ultimate dispersion, disposal or other disposition of any contaminants, assuming any would be trapped by vegetation in the right-

of-way. TxDOT is not aware of any widely-accepted, peer-tested scientific methodology for determining whether the claimed air pollution reduction benefits of vegetation will be realized.

The right-of-way of the Katy Freeway currently is, and under both the TxDOT IH 10 Project Plan and the KCC concept will continue to be, subject to a variety of utility easements and will be crowded with underground utilities. Because planting of trees is not feasible in areas where underground utilities are present, the full benefits for any reduction in air emissions from right-of-way vegetation claimed (without any current scientific predicate) under the KCC concept could not be realized.

Assuming for purposes of this Response (again, without any current scientific predicate) that there would be significant air emissions reduction benefits from right-of-way vegetation, most or all of the benefits claimed under the KCC concept would also be realized under the TxDOT IH 10 Project Plan. The TxDOT Plan will plant more than 28,000 trees between Beltway 8 and IH 610 for aesthetic purposes under the TxDOT Houston District Green Ribbon Master Plan.

Refer to the Responses to Comments 2-1 through 2-9 for more information regarding air quality.

Comment #1-3 (Commentor 24)

Under the Katy Corridor Coalition (KCC) concept, the depressed freeway will contain pollutants within the right-of-way.

Response

Refer to the Response to Comment 1-2 regarding the possibility that the depressed freeway structure under the KCC concept will contain pollutants within the right-of-way. Refer to the Responses to Comments 2-1 through 2-9 for more information regarding air quality.

Comment #1-4 (Commentors 24, 25, 91, 249)

Under the Katy Corridor Coalition (KCC) concept, vegetation planted in the right-of-way will absorb or form a depositional surface for particulate air pollution, thereby reducing air pollution.

Response

Refer to the Response to Comment 1-2 regarding the possibility that the depressed freeway structure under the KCC concept will contain pollutants within the right-of-way and the role that vegetation might play in producing this effect. Refer to the Responses to Comments 2-1 through 2-9 for more information regarding air quality.

Comment #1-5 (Commentors 24, 205, 278)

Under the Katy Coalition Corridor (KCC) concept, depressing the freeway will abate noise in a uniform manner that fully addresses the potential for harm from noise.

Response

Refer to the Response to Comment 3-1.

Comment #1-6 (Commentor 24)

Under the Katy Corridor Coalition (KCC) concept, the depressed freeway will be much better aesthetically because the right-of-way for the depressed freeway is less than the proposed IH 10 right-of-way.

Response

The current TxDOT IH 10 Project Plan and the KCC concept are both 18 thru-lane designs. TxDOT's evaluation of the KCC concept indicates that the depressed roadway would require the same right-of-way as will be acquired for the TxDOT IH 10 Project Plan. The KCC concept, moreover, because of its depressed freeway, would appear to require additional right-of-way for additional surface detention ponds to store, and for pumping stations to move, water collected in the depressed structure. TxDOT concludes that the KCC concept would not improve aesthetics nor reduce the required right-of-way.

Comment #1-7 (Commentor 24)

Under the Katy Corridor Coalition (KCC) concept, the depressed freeway will be much better aesthetically because it will be out of sight and out of hearing.

Response

A depressed freeway may be more aesthetically pleasing to some people by virtue of being less visually obvious from eye level. However, given the increased costs, longer construction schedule, and engineering difficulties associated with the KCC concept and discussed in Response to Comment 1-0, 1-8, 1-9, 1-10, 1-12, 1-13, and 1-14, TxDOT concludes that the limited benefits of aesthetic improvement would be far outweighed by the other limitations. Refer to the Responses to Comments 3-1 through 3-37 for more information regarding noise issues and the Responses to Comments 12-11 through 12-12 for more information regarding aesthetics.

Comment #1-8 (Commentors 24, 95, 251, 318)

Under the Katy Corridor Coalition (KCC) concept, mobility will be improved because the roller coaster effect of overpasses is eliminated, thereby creating an excellent field of vision.

Response

The TxDOT IH 10 Project Plan meets all applicable federal and state design requirements and will operate safely and effectively. These design requirements

call for much better roadway geometries than the current facility provides. If IH 10 were placed on a uniform grade, mainlane operation and safety might be somewhat improved due to increased sight distance. However, the potential modest benefits in operation and safety would be far outweighed by the increased costs, longer construction schedule, and engineering difficulties associated with the KCC concept. Refer to the Response to Comment 1-1.

Comment #1-9 (Commentors 24, 269)

Under the Katy Corridor Coalition (KCC) concept, mobility will be improved through the addition of local throughfare lanes.

Response

The current TxDOT IH 10 Project Plan meets all applicable federal and state design requirements and will operate safely and effectively. The additional of throughfare lanes might take some frontage road through traffic out of intersections and somewhat improve local travel. However, the potential modest benefits to local travel would be far outweighed by the increased costs, longer construction schedule, and engineering difficulties associated with the KCC concept. Refer to the Response to Comment 1-1.

Comment #1-10(Commentors 24, 269)

Under the Katy Corridor Coalition (KCC) concept, mobility will be improved through a slightly different treatment of feeder roads eliminating the direct turning function into parking lots.

Response

The current TxDOT IH 10 Project Plan meets all applicable federal and state design requirements and will operate safely and effectively. Restricting turns from frontage roads into parking lots might improve traffic flow on frontage roads. However, the potential modest benefits to local travel would be far outweighed by the increased costs, longer construction schedule, and engineering difficulties associated with the KCC concept. Refer to the Response to Comment 1-1.

In addition, there could be significant adverse financial consequences to existing businesses under the KCC concept due to the disruption of existing patterns of egress and ingress to their facilities from the frontage roads.

Comment #1-11 (Commentor 24)

Under the Katy Corridor Coalition (KCC) concept, there is greater flexibility with regard to the mass transit alternative by setting aside a swath of land for future right-of-way.

Response

Refer to the Response to Comment 4-1.

Comment #1-12 (Commentors 24, 42, 197, 288, 292)

Under Katy Corridor Coalition (KCC) concept, any drainage problems relating to draining the large volumes of water that would collect in the depressed freeway are simply a matter of pumping capacity, redundancy and back-up power.

Response

The KCC concept is not sufficiently detailed to permit TxDOT to determine whether all the concept's inherent drainage problems could be addressed by adding pumping capacity, adding redundancy of the additional pumping capacity and adding back-up power for the additional pumping capacity. It is, however, clear that substantial additional pumping capacity would have to be added, that the additional pumping capacity would have to be made redundant and that backup power sources for the additional pumping capacity would have to be added under the KCC concept. Additional right-of-way would be needed to site these additional and redundant pumping facilities and their back-up power sources. Further additional right-of-way of substantial but unknown quantities would be required for more detention facilities for the additional storm water associated with the depressed freeway concept.

Regardless of the detailed design of the depressed freeway under the KCC concept, the freeway would inevitably be more prone to flooding during extraordinary weather events. Given the inherent increased risk of flooding and given the increased costs and engineering difficulties associated with the drainage problems associated with KCC concept, TxDOT concludes that any claimed benefits associated with this aspect of the KCC concept would be outweighed by the additional right-of-way, costs and project delays.

Comment #1-13 (Commentor 24)

Under the Katy Corridor Coalition (KCC) concept, any problems relating to the difficulty in moving water from the north side of the depressed freeway to the south can be addressed by siphoning.

Response

The KCC concept is not sufficiently detailed to permit TxDOT to determine whether all the concept's inherent problems with sheet flow runoff from the north side of the freeway to the south side could be addressed by adding siphoning capacity, adding redundancy of the additional siphoning capacity and adding back-up power for the additional siphoning capacity. It is, however, clear that substantial culvert and pumping capacity would have to be added, that the additional pumping capacity would have to be made redundant and that backup power sources for the additional pumping capacity would have to be added under the KCC concept. Additional right-of-way would be needed to site the additional detention ponds required to accommodate the culvert overflow and redundant pumping facilities and their back-up power sources. Given the increased costs and engineering difficulties associated with the sheet flow problems associated with KCC concept, TxDOT concludes that any benefits associated with this

aspect of the concept would be outweighed by the additional right-of-way, costs and project delays.

Comment #1-14 (Commentors 24, 309)

The Katy Corridor Coalition (KCC) concept could be adopted and implemented with little or no delay to the overall project.

Response

The KCC concept would delay the date of completion of the TxDOT IH 10 Project Plan by three years due to the additional time required to relocate all utilities in advance, the additional time required to implement changes in the construction phasing, to the additional time required to excavate almost 9 million cubic yards of soil, and the additional time to construct the additional 17.6 miles of retaining walls.

Air Pollution

Comment #2-1 (Commentors 14, 16, 24, 33, 172, 233)

The Final Environmental Impact Statement (FEIS) and the FEIS Reevaluation Report state that air quality will improve due to the proposed expansion project since traffic congestion will be reduced. However, these reports fail to address the air quality impacts of the increased traffic that will be using the freeway due to the increase capacity, bringing with them more pollutants. Increased traffic volume will create increased pollutant emissions that were never evaluated in the FEIS or the Reevaluation Report. These impacts must be analyzed.

Response

Both the Major Investment Study (MIS) and the Final Environmental Impact Statement (FEIS) rely on evidence that population and employment growth in the West Houston area is expected to remain robust through 2020. Population is expected to increase 42 percent and employment growth is expected to increase by 44 percent from 1990 through 2020. The FEIS looked at several ways to address this anticipated growth and consequential increase in traffic within the IH 10 corridor.

Increased roadway usage, which will occur either under the no-build scenario or the TxDOT IH 10 Project Plan, however, will not necessarily lead to increases in harmful emissions (nitrogen oxides (NOx), volatile organic compounds (VOCs), PM, and air toxics). Such emissions from vehicles are expected to continue the current dramatic pattern of decrease, even with continuing increases in vehicle miles of travel (VMT), for several reasons. See Regulatory Impact Analysis (Chapter II: Health and Welfare Concerns and Emissions Benefits from Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements EPA420-R-00-026 January 2001; and Regulatory Impact Analysis from Control of Air Pollution

from New Motor Vehicles: Tier II/Gasoline Sulfur EPA 420-R-99-023, December 22, 1999 National Air Quality and Trends Report, and Texas Commission on Environmental Quality VMT offset SIP, 1997). Technology is improving at a pace that exceeds the effect of increased VMT.

First, automotive design technology continues to improve. Older, more polluting vehicles continue to be retired and replaced with newer, cleaner vehicles.

Second, newer technology vehicles are getting cleaner with each subsequent model year. See EPA's Tier II/gasoline sulfur regulations and EPA's heavy-duty on-highway/diesel fuel regulations.

Third, fuels are improving and continue to improve (see 1990 CAAA re: RFG and lower toxic requirements, low RVP gasolines, EPA's 1993 500 ppm on-road diesel fuel regulations, Tier II, HDDV and low sulfur diesel). Reformulated gasoline (RFG), in use in the Houston area since 1995, has produced reductions in air toxics. Low sulfur gasoline enables better emission controls, and can lead to further emission reductions from today's catalyst-equipped fleet (see EPA's Fuel Sulfur Effects on Exhaust Emissions, 1999), and low sulfur diesel will enable new diesel emission reduction technology. See the regulatory impact statement, and other related documents for EPA's HDDV on-highway rule making.

Over the period 2007-2010, the EPA's light-duty Tier II emission and fuel standards will be fully implemented. VMT increases were modeled by the EPA for light-duty vehicles as 1.7 percent per year from 2007 through 2030 (Tier II RIA). The EPA further estimated increases in heavy-duty diesel VMT of almost 50 percent between 2000 and 2030 (see HDDV RIA, May 2000).

Evidence indicates that PM₁₀ levels in the Houston area will decline during the project period. See Particulate Concentrations, Compositions, and Sources in Southeast Texas, Dr. David Allen, December 2002, in which Dr. Allen argues that "On average sulfate accounts for approximately 40 percent of fine particulate mass..." Under new regulations, the EPA will be reducing emissions of sulfur compounds from both gasoline and diesel powered equipment. See EPA rules for gasoline sulfur, on-road diesel sulfur, and off-road diesel sulfur. For these and other reasons, other researchers have found levels of PM_{2.5} decreasing. See Lipfert 1998, as cited in the EPA's Air Quality for Particulate Matter, April 2003, who found PM_{2.5} decreasing about five percent per year (1970-1990) in urban areas.

Fourth, emissions from heavy-duty on-highway vehicles are expected to decrease. The EPA has evaluated the following gaseous air toxics from heavy-duty on-highway vehicles: benzene, formaldehyde, acetaldehyde, 1,3 butadiene, acrolein, and dioxin. The EPA has also evaluated PM from these vehicles. The EPA modeled various urban areas including the Houston area, and concluded that as a result of their heavy-duty on-highway regulations, air toxics will be reduced by

1/3 (see December 2000 HDDV RIA p. II-124). PM emissions reductions will start with in 2006, due to the reduction of sulfur in diesel fuel, going from 500 ppm to 15 ppm. Changes in the fuel mix are estimated by the EPA to reduce diesel PM emissions by 90 percent in 2030 from today's emission levels.

Fifth, emission from light-duty on-highway vehicles are expected to decrease. Light duty vehicle emissions will show steady decreases in NOx emissions from a nine percent reduction in 2004 to a 76 percent reduction by 2030 (see Table III.A.3, RIA Tier II). The EPA has concluded that nitrogen oxides can be a precursor to fine particulate matter. The same RIA indicates a reduction of light duty PM₁₀ emission starting with a 36 percent reduction in 2004 to an 80 percent reduction by 2030 (see Table III.A-15).

This same RIA modeled ambient levels of air toxics (benzene, 1,3 butadiene, formaldehyde, acetaldehyde, and diesel PM) in several large cities including Houston. This analysis concluded that toxic air emissions from light-duty vehicles will continue the downward trend.

Sixth, current traffic in the IH 10 corridor is highly congested at times, and future traffic would be anticipated to increase this congestion under the no-build scenario. Congested roadways with increased individual vehicle starts and stops typically produce high per vehicle emission rates. While the traffic volume on IH 10 will increase whether or not capacity is increased, what will specifically occur as a result of the TxDOT IH 10 Project Plan is a decrease in congestion as the increased volume of traffic is distributed across an increased number of lanes. Decreasing congestion under the TxDOT IH 10 Project Plan will reduce emissions from individual vehicles.

Comment #2-2 (Commentors 3, 33, 69, 84, 91, 95, 192, 198, 201, 288, 309)

Of concern to a number of citizens was the potential of increased particulate matter and the impact of that particulate matter on the lives of area residents and their children.

Response

Six pollutants are of concern with regards to air quality in urban areas including: ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, particulate matter, and lead. The U.S. Environmental Protection Agency (EPA) establishes National Ambient Air Quality Standards (NAAQS) for these identified air pollutants that represent exposure levels where potential threats to human health occur. The Houston-Galveston area (Harris County and the surrounding seven counties) is in non-attainment only for ozone.

There are two types of particulate matter (PM) for which the EPA has set national standards for: PM₁₀ and PM_{2.5} which are respectively defined as particles with an aerodynamic diameter less than or equal to a nominal 10 and 2.5 micrometers. The particulate matter NAAQS reflect values the EPA deems safe for both the

general population and sensitive populations (young, old, pulmonary impaired, etc.). These standards also have an additional margin of safety built into them.

The health risk from potential air pollutants is generally determined on a regional basis with the EPA designating areas where the potential for threat to human health exists as nonattainment areas for specific air pollutants. The EPA, however, has not designated the Houston-Galveston area as a nonattainment area for either PM₁₀ or PM_{2.5}. Nonattainment designation, moreover, is neither contemplated nor imminent for the Houston-Galveston area. For this reason, the Federal Highway Administration does not require evaluation of the potential impacts of PM₁₀ or PM_{2.5} for the TxDOT IH 10 Project Plan.

TxDOT is confident that the standards EPA has set for PM₁₀ and PM_{2.5} are adequate and, since the Houston-Galveston area remains in attainment for PM₁₀ and PM_{2.5}, that the public health is being adequately protected.

The EPA, moreover, predicts significant future air emission reductions as the agency's new light-duty and heavy-duty on-highway fuel and vehicle rules come into effect (Tier II, light-duty vehicle standard, Heavy-Duty Diesel Vehicle and (HDDV) standards and low sulfur diesel fuel, and EPA's proposed Off-Road Diesel Engine and Fuel Standard). Refer to the discussion of the future effect of new EPA fuel/vehicle regulations in the Response to Comment 2-1. These projected air emissions reductions will be realized even with the predicted continued growth in vehicle miles traveled (VMT). See Tier II RIA and HDDV RIA. See Regulatory Impact Analysis (Chapter II: Health and Welfare Concerns and Emissions Benefits from Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements EPA420-R-00-026 January 2001; and Regulatory Impact Analysis from Control of Air Pollution from New Motor Vehicles: Tier II/Gasoline Sulfur EPA 420-R-99-023, December 22, 1999 National Air Quality and Trends Report, and Texas Commission on Environmental Quality VMT offset SIP, 1997).

Several Commentors have cited studies of the health effects of particulate matter and air toxic emissions in arguing that TxDOT has failed adequately to consider the health effects of air emissions associated with the TxDOT IH 10 Project Plan. TXDOT's consideration of these published studies is summarized below. These studies were reviewed by TxDOT in following three contexts.

First, the TxDOT IH 10 Project Plan will be completed in 2009, at which time, as discussed in the Response to Comment 2-1, the technology of the vehicular mix utilizing the IH 10 facility will be significantly different than it was at the time of the studies cited by the Commentors, and significantly different than the technology today.

Second, the vehicular fuels utilized at the time of the studies cited by the Commentors are significantly different from that in use today, and significantly different from the mix that will be in use in 2009 when the TxDOT IH 10 Project Plan will be completed.

Third, with regard to the studies from other countries, the emissions profile and gasoline/diesel mix of the vehicular fleet in the United States are today, and likely will continue to be in 2009, significantly different from any other place in the world.

The following is a synopsis of TxDOT's review of the specific studies cited by Commentors:

A. Excerpts from U.S. EPA Air Quality Criteria for Particulate Matter (Second External Review Draft March 2001).

This report was in draft format. A later draft exists dated April of 2002. Both drafts were reviewed. These reports are extensive and do conclude that PM emissions can be harmful to human health. However, the reports do not indicate that PM emissions are steadily increasing in urban areas in the United States, while other published studies report PM emissions decreasing and EPA's own Air Quality Trends Reports on PM indicates general improvements in PM levels across the U.S.

B. Sonoma Technology, Inc. Assessment of Health Benefits of Improving Air Quality in Houston, Texas.

This study is based on data collected from the late 1990s. The report concludes that there are significant health benefits of reducing PM emissions. One of the strategies the report recommends pursuing is the use of cleaner diesel fuel. The EPA, since the study, has promulgated rules (discussed in the Response to Comment 2-1) improving on and off-road diesel fuel and applying equally stringent emission standards for on and off-highway diesel-powered equipment.

C. Letter from Dr. Matt Fraser

This letter acknowledges that the current Houston PM fine network is monitoring attainment with the PM fine standard. The EPA Air Quality Trends Reports, as well as other research indicate that PM pollution continues to improve across the country, including in Southeast Texas.

Dr. Fraser states that in connection with his modeling PM emissions from another project in Texas that "...you cannot extrapolate increases in fine particle concentrations from one proposed project to another" and goes on to say that "...without appropriate dispersion calculations, one cannot accurately compare alternative proposals which may lessen the environmental impact of the project."

This calls into question any claims of health benefits from a depressed freeway design without adequate modeling. Dr. Fraser, in fact, states it cannot be determined which alternative freeway design proposal will lessen environmental impacts.

Dr. Fraser uses the CALPUFF model for his modeling. However, the EPA concludes that: "...CALPUFF in its current configuration is suitable for regulatory use [only] for long range transport, and on a case-by-case basis for complex wind situations" (See Federal Register Vol. 68, No. 72 pp. 18441, April 15, 2003). There are other potentially more suitable models available for determining the dispersion of emissions from line sources. See Modifications of Highway Air Pollution Models for Complex Site Geometries, Volume I, Data Analysis and Model Development, FHWA RD-02-036 2002; Modifications of Highway Air Pollution Models for Complex Site Geometries, Volume II, Wind Tunnel Test Program, FHWA RD-02-037 2002; and Traffic Pollution Effects of Elevated, Depressed, and At-Grade Level Freeways in Texas, Texas Transportation Institute, Research Report 1327-4 1997. It is unclear why Dr. Fraser implies it would be appropriate to use CALPUFF for evaluating a potential impact on nearby neighborhoods along the IH 10 corridor, when EPA recommends CALPUFF's use for "...sulfur dioxide and particulate matter ambient air quality standards and PSD incremental impact analysis involving...transport greater than 50km from one or several closely spaced sources..." (p. 18444).

Lastly, in modeling air emissions associated with another highway in Texas, Dr. Fraser estimated particulate emissions from diesel-powered trucks at 0.11g/km. In looking at the impacts of a potential future improvement of a highway, it is advisable to look at the emissions from the vehicles using the highway in the future. EPA has rules in place, discussed in the Response to Comment 2-1, which will reduce PM emissions from diesel-powered vehicles by 90 percent. The emission factor used by Dr. Fraser in his modeling fails to consider the impacts of these rules when the TxDOT IH 10 Project Plan is completed in 2009.

D. Expert Report of Dr. Michael Kleinman

Dr. Kleinman reports that there is an association between adverse health effects and living near heavily-trafficked roadways. The studies cited by Dr. Kleinman, however, all look backwards in time. These studies do not speculate on what effect long-term downward trends in PM and air toxic emissions in the United States may have on future populations. The EPA, in contrast, does attempt to both quantify the level of decreased cancer risk and other acute and chronic impacts anticipated emissions decreases may have on a future U.S. population. The EPA finds almost universality positive benefits on future urban populations. See RIA for Tier II, HDDV standards, Off-road proposed standards. See Regulatory Impact Analysis (Chapter II: Health and Welfare Concerns and Emissions Benefits from Control of Air Pollution from New Motor Vehicles:

Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements EPA420-R-00-026 January 2001; and Regulatory Impact Analysis from Control of Air Pollution from New Motor Vehicles: Tier II/Gasoline Sulfur EPA 420-R-99-023, December 22, 1999 National Air Quality and Trends Report, and Texas Commission on Environmental Quality VMT offset SIP, 1997).

E. Summaries of health studies reporting on health effects associated with living near heavily-trafficked areas.

1. Bruekreef, et al.

This study was conducted in the Netherlands during 1995. The differences between the fuel used for motor transport between the United States and Western Europe are significant. The U.S. vehicle fleet includes significantly more gasoline-powered vehicles than the European fleet, where they use significantly more diesel fuel. The U.S. Department of Energy (DOE) statistics for the output of refined products by country provides a rough estimate of the differences. In 2000, the United States used diesel fuel for about 33 percent of its surface transportation needs. Western Europe, in contrast, used about 60 percent diesel fuel for its surface transportation needs or roughly twice as much. The Netherlands specifically used 57 percent diesel fuel for surface transportation. As another indicator of the relative popularity of diesel power in Europe, The Diesel Technology Forum estimated that just light duty diesel sales in Europe were 14 percent of the light-duty market in 1990, climbed to 22 percent in 1995, and today represents 33 percent. The U.S. market for light-duty diesels is less than one percent of total vehicle sales. See Demand for Diesels the European Experience, The Diesel Technology Forum 2001. Thus, whatever the reliability of this study looking backwards, its relevance to a future U.S. fleet is problematic.

2. Buckeridge, et al.

This study looked at hospital admissions between 1990 and 1992 in Southeast Toronto, Canada. Although Canada has automotive technology similar to the United States, Canada does not completely match the stringency of U.S. standards. Canadian fuel is also somewhat different from that used in the United States. The usefulness of the study is limited, moreover, because of the time the data was collected, where it was collected, and the differences in technologies and fuel used in Canada in early 1990s vs. what will be used in the United States in 2009, the estimated completion date of the TxDOT IH 10 Project Plan.

3. Kristiina, et al.

This study looked at school children in Helsinki, Finland during 1991. As in the studies considered above, it is inherently problematic to assess the potential

impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

4. Steerenberg, et al.

The authors evaluated the impact of traffic-related pollutants (nitric oxide, nitrogen dioxide, carbon monoxide and black smoke) on respiratory symptoms in Germany based on data collected during the late 1990s. The study is not reflective of what emissions may be seen along a future roadway in the United States, with a heavily-regulated U.S. fleet of cars and trucks and the low sulfur U.S. gasoline and diesel fuel that will be in use by 2009.

5. Vliet, et al.

This study was also study conducted in Western European (the Netherlands) in the 1990s. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix

6. Wjst, et al.

This study was conducted in Munich, Germany in the late 1980s and early 1990s. Germany's diesel fuel use is on average higher than that of other Western European countries, with roughly 2/3 of its surface transportation fleet fueled by diesel. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

7. Dejmek et al.

This study was conducted in Northern Bohemia based on data collected during the years 1994-1998. Emissions of particulates, and other pollutants were assumed to come from "chemical industry, surface mining, and large coal power plants". The study was not relevant to the TxDOT IH 10 Project Plan, because the species of PM emissions studied (coal plant emissions, industrial emissions, and crustal material from mining operations) are significantly different from potential emissions from mobile sources. The levels of PM emissions experienced by this population were considerably higher, and of much longer term, than would be anticipated for a population living near a modern highway in the United States in 2009.

8. Dejmek et al.

This was a follow up to the previous study of the same population looking more closely at polycyclic aromatic hydrocarbons sometimes found in association with particulate matter. Again, this study suffers from the same deficiencies as the

previous study with regard to its predictive power in determining the health effects on a 2009 U.S. vehicle and fuel mix.

9. Ritz, et al.

This study was conducted in California between 1987 and 1993. The study concludes that "...certain fetal heart phenotypes may be susceptible to the adverse effects of two ambient pollutants, carbon monoxide and ozone." The analysis in the IH 10 FEIS specifically concluded there would be no violations of the carbon monoxide or ozone National Ambient Air Quality Standards (NAAQS). This study is not relevant because the TxDOT IH 10 Project Plan is not estimated to increase either of these pollutants.

10. Edwards, et al.

This study was conducted in Birmingham England based on data collected between 1988 and 1991. The study looked at the relationship between proximity to major roadways and hospital emissions for asthma in children younger than five years. As discussed above, the differences between the fuel used for motor transport between the United States and Western Europe were, and are likely to remain, significantly different. The United States uses significantly more gasoline-fueled vehicles than Europe, where they use significantly more diesel fuel. The DOE statistics for the output of refined products by country provide a rough estimate of the differences. In 2000, the United States used diesel fuel for about 33 percent of its surface transportation needs. Western Europe, in contrast, used about 60 percent diesel fuel for its surface transportation needs or roughly twice as much. The United Kingdom specifically used 50 percent diesel fuel for surface transportation. Thus, whatever the reliability of this study looking backwards, its relevance to a future U.S. fleet is questionable. Also, regarding asthma, The American Lung Association reported in March of 2003 for the US, the "...mortality and hospital discharge estimates [for asthma] continue to decline. The number of deaths due to asthma in 2000 was approximately four percent lower than the number of deaths seen in 1999. The hospital discharge rate has declined 14 percent since it peaked...in 1995".

11. Guo, et al.

This study was conducted in Taiwan, China in the 1990s. Asia/Oceania is very similar to Western Europe in its vehicle/fuel mix. Sixty percent to 2/3 of surface transportation uses diesel fuel. In Taiwan specifically, about 50 percent of the fuel used for transportation is diesel fuel. The U.S. uses less, at about 1/3 of all surface transportation. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Asia/Oceania vehicle and fuel mix.

12. Studnicka, et al

This four-year study was conducted in Lower Austria in the early 1990s regarding asthma and other respiratory symptoms. The study does not reflect a comparable traffic mix (gasoline vs. diesel vehicles) or an appropriate vehicle mix (2009 U.S.-certified technologies), nor does the study mirror the fuels that will be used in the United States. All of these factors make this study of little utility in considering potential impacts associated with TxDOT IH 10 Project Plan.

13. Wyler, et al.

This study was conducted in Basel, Switzerland in the late 1990s. The study concludes: “These results suggest that living on busy roads is associated with a higher risk for a sensitization to pollen and could possibly be interpreted as an indication for interactions between pollen and air pollutants”. As a study primarily of the effects of pollen, it is of limited utility in assessing the health impacts of PM emissions. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

14. A la Tertre, et al

This study looked at hospital admissions in Barcelona Spain, Birmingham and London England, Milan Italy, Amsterdam Netherlands, Paris France, Rome Italy, and Stockholm Sweden in the 1990s. The study concludes that cardiac conditions may be associated with exposure to diesel exhaust. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

15. Hoek, et al.

This study was conducted in the Netherlands in 1986. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix

16. Knox, et al.

This study looked at childhood cancers in Great Britain between 1953 and 1980. Great Britain used very large amounts of coal in the years after the Second World War. These coal-sourced PM emissions are somewhat different than those produced by a modern gasoline and diesel-powered vehicle fleet. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

17. Pearson, et al.

This study was conducted in Denver in 1980 and looked at exposure to benzene. Since the 1990 Clean Air Act Amendments, benzene reduction from mobile sources has achieved remarkable success in the United States, especially in reformulated gasoline (RFG) areas like Houston. Houston has used RFG since 1995. The EPA in their Air Quality Trends Report on air toxics indicates that: "Measurements (of benzene) taken at these sites show, on average, a 47 percent drop in benzene levels from 1994 to 2000. During this period, EPA phased in new (so-called "Tier 1") car emission standards; required many cities to begin using cleaner burning gasoline; and set standards that required significant reductions in benzene and other pollutants emitted from oil refineries and chemical processes. The EPA estimates that, nationwide, benzene emissions from all sources dropped 20 percent from 1990 to 1996." With Tier II standards and the EPA's new on-road HDDV standards, this reduction trend in ambient levels of benzene is expected to continue.

18. Raaschou-Nielsen, et al.

This study was conducted in Denmark based on data collected between 1968 and 1991. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

19. U.S. Health Assessment Document for Diesel Exhaust.

This study suffers from a fundamental infirmity in that it was based on a review of outmoded technology: "The assessment's health hazard conclusions are based on exposure to exhaust from diesel engines built prior to the mid-1990s." The report elaborates: "As new diesel engines with cleaner exhaust emission replace existing engines, the applicability of the conclusions in this Health Assessment Document will need to be reevaluated." The study further articulates its own limitations: "A notable uncertainty of this assessment is whether the health hazards identified from studies using emissions from older engines can be applied to present-day environmental emissions...[or the future IH 10 vehicle and fuel mix]...as some physical and chemical characteristics of the emissions from certain sources have changed over time." As the study's authors suggest, the study may have very little relevance at the time the TxDOT IH 10 Project Plan is completed

One of the conclusions of this study was: "The assessment concludes that long-term (i.e. chronic) inhalation exposure is likely to pose a lung cancer hazard to humans..." However, the study does not consider whether levels of exposure in 2009, anticipated to be lower than today's levels, would produce the same effects.

The study, moreover, found toxic effects at levels higher and in some cases much higher than actual exposure levels near freeways: "...the national average diesel exhaust exposure from on-road engines.... 0.5 to 0.8 micrograms per cubic meter

of inhaled air in many rural and urban areas...For localized urban areas...may range up to 4.0 micrograms per cubic meter..." One reference exposure level looked at for chronic effects in the study were 5.0 micrograms per cubic meter. These authors, however, had to employ higher exposure levels, in some cases 10 times higher, in order to find long-term health impacts, and caution that: "Other uncertainties include the assumptions that health effects observed at high doses may be applicable to low doses, and that toxicologic findings in laboratory animals generally are predictive of human responses".

Refer to the Response to Comment 2-1 regarding the effects of the TxDOT IH 10 Project Plan on the volume of air emissions.

Comment #2-3 (Commentor 201)

There are super-sized ionizers used in Mexico City to mitigate air pollution. Could this be a solution to the pollution problem?

Response

An air quality analysis was performed in compliance with all applicable rules and guidelines for the proposed project. Based on the results of the air quality analysis, there will be no violations of the Environmental Protection Agency (EPA) air quality standard for carbon monoxide (CO) as a result of implementing the proposed project and, thus, no impacts. The proposed project is part of the current-air-quality-standard-conforming Houston Galveston 2022 Metropolitan Transportation Plan and Fiscal Year 2002 – 4 Transportation Improvement Program. Therefore, TxDOT is not required to mitigate, but certainly supports any initiative that improves air quality.

Comment #2-4 (Commentors 95, 223)

How does TxDOT plan to mitigate air pollution with their design, especially in the area between Wirt and Bingle?

Response

Refer to the Response to Comment 2-1.

Comment #2-5 (Commentor 286)

TxDOT claims that it is not adding capacity to IH 10 therefore is in compliance with the Clean Air Act. Technically, this is correct, but practically, increased ramp lengths (especially at IH 610) constitute the addition of lanes.

Response

Adding capacity is defined as adding additional thru-lanes. TxDOT is adding capacity to IH 10 and has never claimed otherwise since the preferred alternative was selected. Furthermore, the TxDOT IH 10 Project Plan, with additional capacity, is in compliance with the Clean Air Act. Increasing ramp lengths alone,

does not constitute the addition of thru-lanes and therefore, does not constitute adding capacity.

Comment #2-6 (Commentors 189, 197, 317)

Toll roads increase pollution. HOV lanes reduce pollution. How can we replace lanes dedicated to reducing pollution with lanes that increase pollution?

Response

Toll roads do not merely by virtue of their design increase pollution.

In addition, High Occupancy Vehicle (HOV) lanes are not necessarily being replaced under the TxDOT IH 10 Project Plan. The proposed variable-priced toll operation of the managed lanes will function, in part, as HOV lanes because HOVs will be allowed on the toll lanes. Furthermore, HOVs with three or more passengers (HOV3) will be able to use the toll lanes free of charge from 6:00 a.m. to 11:00 a.m. eastbound and from 2:00 p.m. to 8:00 p.m. westbound, everyday. METRO buses will be allowed to use the managed lanes for free. Therefore, the toll lanes should have no affect on the number of HOV3s using the facility during peak travel periods. Single Occupancy Vehicles (SOVs) and HOVs with two passengers (HOV2) will pay tolls at all times. By maximizing the use of spare capacity, the managed lanes can reduce congestion on general-purpose lanes. With such pricing, TxDOT anticipates that commuters would shift to other modes of transportation and increase carpooling, thereby reducing emissions.

Refer to the Response to Comment 2-1 regarding the effects of the TxDOT IH 10 Project Plan on the volume of air emissions.

Comment #2-7 (Commentors 8, 24, 192, 197, 317, 332)

The Reevaluation Report does not include an analysis of health effects associated with freeways.

Response

Refer to the Responses to Comments 2-2, 2-3, 2-8, and 12-1 regarding air quality and health effects.

Comment #2-8 (Commentors 24, 192)

The Reevaluation Report does not discuss health effects of diesel carcinogens.

Response

There are and will be diesel emissions from vehicular traffic utilizing IH 10. However, as discussed in the Response to Comment 2-1, the TxDOT IH 10 Project Plan is anticipated to decrease traffic congestion resulting in fewer air pollutants from vehicular sources. Moreover, as discussed in the Response to Comment 2-1, diesel emissions in the IH 10 corridor will be reduced significantly by future changes in automotive and fuel technology mandated by EPA regulation. Finally, as discussed in the Response to Comment 2-2, there is

currently no scientific basis for assuming adverse health effect from particulate matter (PM) exhaust from diesel-powered vehicles utilizing IH 10. Therefore, there is no basis for concluding that diesel emissions from vehicles utilizing an expanded IH 10 will adversely impact proximate human populations.

Moreover, the environmental impacts of air pollutants typically are not assessed on the basis of categories of generator sources such as vehicle diesel exhaust, but rather on the basis of concentrations of air pollutants such as ozone, hydrocarbons, nitrogen oxide, carbon monoxide, PM₁₀ and PM_{2.5}. Thus, there is no basis for evaluating the potential affects on human populations proximate to the IH 10 project from emissions from diesel-powered vehicles *per se*. The environmental effects of two potential air pollutants related to diesel exhaust, PM₁₀ and PM_{2.5}, are discussed in the Response to Comment 2-2.

Comment #2-9 (Commentor 24)

It is impossible to determine if the Reevaluation Report conducted an analysis of the differential impacts of HOV lanes and toll lanes on air emissions required under federal law.

Response

The effect on air quality of the design change to incorporate toll lane operations was considered in assessing the environmental impacts of the change in the Reevaluation Report. The TxDOT IH 10 Project Plan is part of the current-air-quality-standard-conforming Houston Galveston 2022 Metropolitan Transportation Plan (MTP) and Fiscal Year 2002-2004 Transportation Improvement Program (TIP).

Noise Impacts

Comment #3-1 (Commentors 3, 8, 13, 197, 233, 237)

Many issues were raised concerning the potential noise impacts of the proposed project. Many commentors advocated the use of a depressed highway section as a means of reducing noise impacts.

Response

Noise impacts have been addressed in the Final Environmental Impact Statement (FEIS) and in the FEIS Reevaluation. The Federal Highway Administration (FHWA) Traffic Noise Model was used to analyze existing (2001) and predicted (2021) noise levels. If a receiver will be impacted by noise, noise mitigation has been considered. The construction of noise abatement barriers has been proposed in areas where the construction of these barriers would be both reasonable and feasible. TxDOT is mitigating noise impacts through the cost-effective use of noise abatement barriers.

Comment #3-2 (Commentor 185)

Would property owners be required to donate land for the construction of noise barriers?

Response

If the proposed noise barrier were to be located along the right-of-way, no private property would be required. However, some noise barriers have been proposed beyond the right-of-way line. These barriers would require the donation of property or easements in order to be constructed. Property owners, however, will not under any circumstances be forced to donate property. Refer to the Responses to Comments 3-7 and 3-27 for additional information.

Comment #3-3 (Commentor 163)

Why do some streets have to be closed for the construction of noise barriers?

Response

In some locations, proposed noise barriers do not meet the cost-effectiveness criteria if the barriers were to be broken to allow passage of a street. Closure of the street is the only way to block enough noise to make the proposed barriers cost-effective. However, it is not TxDOT policy to eliminate existing street access. The City of Spring Valley and Afton Village subdivision proposed street closures in the proposed design when no other alternative for noise mitigation was possible.

Comment #3-4 (Commentor 163)

Could noise barriers be constructed on top of the existing concrete traffic barriers instead of being constructed at the right-of-way line?

Response

Noise barriers installed atop existing concrete traffic barriers were modeled as part of the noise analysis but were not cost-effective. However, the noise abatement barriers are effective at the edge of the right-of-way where they can block the noise from both the mainlanes and frontage roads.

Comment #3-5 (Commentors 14, 245, 278)

The prevailing winds seem to cause an increase in traffic noise. Is wind considered as a factor in the noise modeling analysis?

Response

Wind is not considered as a factor in the noise modeling analysis. The Federal Highway Administration (FHWA) Traffic Noise Model program was written to use a standardized set of weather conditions in all noise models. Temperature and humidity are the only weather conditions that can be customized in the model.

Comment #3-6 (Commentors 245, 246, 290)

Have the noise impacts of elevated structures been considered and could effective noise barriers be constructed on elevated sections of the roadway?

Response

Elevated portions of IH 10, such as bridges, overpasses, and direct connectors between IH 10 and IH 610 and Beltway 8, have been incorporated into the noise models. Noise barriers along elevated structures were not as effective as barriers along the right-of-way line. However, concrete traffic barriers located along the edges of elevated lanes would function to mitigate some sound from these elevated structures.

Comment #3-7 (Commentors 46, 163, 169, 184, 185, 197, 298)

Could noise barriers be constructed between abutting businesses and residential property?

Response

This option is being investigated where the circumstances of a particular situation merit study. In those situations, the city or county would have to obtain, in fee or easement, the property for the noise abatement barrier, pay for adjustment of the utilities, and maintain the barrier in perpetuity. If a noise barrier is proposed and is approved by the property owners, TxDOT is responsible for the construction. Refer to the Responses to Comments 3-2 and 3-27 for additional information.

Comment #3-8 (Commentors 68, 81)

Could landscaping be used instead of noise barriers to mitigate noise impacts?

Response

Studies have shown that while landscaping can have a small mitigative effect on noise impacts, landscaping by itself is not an effective means of reducing noise levels. Noise barriers are much more effective at achieving noise reductions. Landscaping is included in the proposed project to enhance the aesthetics of the proposed facility.

Comment #3-9 (Commentors 23, 95, 311)

The proposed plan does not call for a noise barrier on the north side of IH 10 between Bingle and Wirt Roads. The noise level is already too high. Please consider appropriate revisions.

Response

Noise Barrier #13 has been proposed to the immediate west of Wirt Road. Elsewhere along the north side of IH 10 between Bingle Road and Wirt Road, properties adjacent to the highway are either commercial or currently undeveloped. The homes in this area do not abut IH 10 and are far enough off of IH 10 that noise levels do not approach, equal or exceed the noise abatement criteria for residences. Therefore, the homes in the area are not impacted by noise and TxDOT does not propose a noise abatement barrier.

Comment #3-10(Commentor 298)

I would like to see a better noise abatement plan on the south side between Kirkwood and Wilcrest.

Response

Noise Barrier #22 has been proposed at the Lafayette West Apartments, to the immediate west of West Forest Drive. Residences south of IH 10 between Kirkwood and Wilcrest were modeled. However, the residences of the Nottingham neighborhood did not approach, equal, or exceed the Noise Abatement Criteria for residences and are not impacted. Therefore, a noise barrier is not proposed in this location. These residences are approximately 300 feet from IH 10.

Comment #3-11 (Commentor 121)

Please include a sound wall across the Spring Valley parkland east of Bingle in the expansion plans for the freeway.

Response

There is not enough room in this area to construct a feasible and reasonable noise barrier. Bingle Road, Briar Branch and commercial development would require openings in any type of wall proposed. The more openings in a wall, the less effective it is. Please refer to the Response to Comment 3-3 regarding street closures.

Comment #3-12 (Commentor 179)

Barkers Landing needs 20-foot sound barriers on Grisby between Addicks Howell and Keating Street. Receiver 36 exceeds the recommended category of 67 decibels.

Response

Residences within Barker's Landing were modeled. However, the residences along Grisby Street between Addicks Howell Road and Keating Street did not approach, equal, or exceed the Noise Abatement Criteria for residences and are not impacted. Therefore, a noise barrier is not proposed in this location. These residences are approximately 400 feet further away from IH 10 than Receiver CR 36.

Comment #3-13 (Commentor 179)

Excessive vehicle noise along Addicks Howell (between S. Barkers Landing and Memorial) needs to be evaluated and addressed due to the addition of an elevated Tee Ramp on S. Hwy 6.

Response

Please refer to the Responses to Comments 3-12 and 3-6.

Comment #3-14 (Commentor 4)

We have a private school and child development center at 14530 Old Katy Road and are concerned about noise. Please provide necessary noise abatement facilities/equipment so our children at the center are relatively undisturbed during the hours of occupancy (6:30 am – 6:30 p.m.).

Response

This facility was modeled in the noise analysis and the results indicate that interior noise levels would not approach, equal, or exceed the noise abatement criteria. Noise modeling of this facility indicates that a reasonable and feasible noise barrier is not possible at this location.

Comment #3-15 (Commentors 8, 11, 29, 37, 165, 228, 286, 325)

The residents of Lafayette Place Section 3, which abuts N. Post Oak Rd., are concerned about the noise level, pollution and aesthetics of the propose off-ramp from IH 10 south to Memorial and Woodway. You claim you cannot buffer noise from an elevated structure and we strongly urge you to keep the off ramp at ground level past Lafayette Place residences. The modeling done does not represent real world situation. Dr. Silverman took numerous noise readings that exceeded noise abatement criteria.

Response

The Federal Highway Administration (FHWA) Traffic Noise Model incorporates the worst-case scenario for the receivers modeled. Two receivers, BR1B and BR1C were modeled in the vicinity of N. Post Oak Road, neither of which had noise impacts. Elevated lanes in this area will be partially buffered by the presence of concrete traffic barriers, which will shield the area from some noise. Also see the Responses to Comments 2-1 and 2-5 regarding air quality and 12-11 regarding aesthetics.

Comment #3-16 (Commentor 43)

I live at 1101 Ridgeley and the proposed expansion would place the freeway in my backyard, which would lower property values, increase flooding and increase noise impacts.

Response

Review of the TxDOT IH 10 Project Plan schematics and the Harris County Appraisal District maps indicate that your property will be at least 700 feet away from the proposed IH 10 right-of-way. Although 1101 Ridgeley Drive was not specifically modeled as a receiver for the noise analysis, it is located near receivers for which Noise Barrier #13 has been proposed to benefit. The proposed IH 10 configuration includes a 4.5-acre detention basin in the vicinity of your property to help contain floodwaters. Also see Response to Comment 12-2 regarding property values and 7-1 regarding drainage.

Comment #3-17 (Commentors 50, 159)

I represent the owners of Green Trails Subdivision Phase II (located on the south side of IH 10 from west of South Greenhouse to Barker Cypress) and am requesting noise abatement walls along the length of the subdivision. There is undeveloped commercial property between the homes and the freeway.

Response

A noise barrier was modeled in this location and found to be both reasonable and feasible. This barrier is proposed for construction. Please note that at least a portion of this barrier will be constructed away from the IH 10 right-of-way. Please refer to the Responses to Comments 3-2 and 3-7 for more information regarding off-right-of-way barriers.

Comment #3-18 (Commentor 81)

More noise barriers should be constructed and more landscaping efforts should be made to reduce noise levels to below 60 decibels initially as the noise will likely increase with population growth.

Response

Noise barriers have been proposed for those locations in which the Federal Highway Administration (FHWA) Traffic Noise Model identified a reasonable and feasible noise barrier configuration. The state criteria for construction of a noise abatement barrier require that the barrier reduce noise levels by 5 dBA. The noise level may still be over the noise abatement criteria for the benefited receivers after this five-dBA reduction. The noise abatement criteria for most receivers along IH 10 are either 67 or 72 dBA. There are no requirements in law to reduce noise levels below a certain level. That goal may not be obtainable or within reasonable cost for the taxpayers. Refer to Response to Comment 3-8.

Comment #3-19 (Commentor 123)

We experience high noise levels on our property, 1306 Krist Dr., especially when winds are from the south. It appears that the roadway will be elevated at Spring Branch Creek, which runs behind our house, with no provisions for sound barriers. We need sound barriers.

Response

Review of the Harris County Appraisal District maps indicates that 1306 Krist Drive is located at least 2,800 feet from the proposed IH 10 right-of-way. Although your property was not specifically modeled as a receiver, it is located in the vicinity of receivers for which Noise Barrier #13 (located on the north side of IH 10 from Spring Branch to east of Wirt Road) has been proposed.

Comment #3-20 (Commentor 125)

I would like sound/noise readings taken in our neighborhood (Autumn Oaks Subdivision) and a projection of what noise will be after construction. I would also like to know if those readings are above the levels that would qualify for a sound wall.

Response

Receiver CR2 is located in the Autumn Oaks subdivision. The Federal Highway Administration (FHWA) Traffic Noise Model identified an existing (2001) noise level of 73 dBA and a predicted (2021) noise level of 75 decibels for CR2. A noise barrier was modeled in this location and found to be both reasonable and feasible. This barrier is proposed for construction. Please note that this barrier would be constructed away from the IH 10 right-of-way. Refer to Responses to Comments 3-2 and 3-7 for more information regarding off-right-of-way barriers.

Comment #3-21 (Commentors 125, 163, 197)

I'd like to have the "6" foot sound wall on the mainlanes, similar to those installed on IH 610 south near Bellaire to reduce noise and visual pollution. Noise walls on the mainlanes would not require street closures that some of the proposed noise barriers would.

Response

Noise barriers installed along the edge of pavement of the mainlanes have been modeled as part of the noise analysis. However, these configurations were not as effective in reducing noise levels for receivers as the proposed noise barrier configurations were for this project. This is partially because mainlane barriers would not block noise from frontage roads and because they would be farther away from the receivers. Additionally, in some locations, mainlane barriers would have to be broken to allow passage of entry and exit ramps. Therefore, the noise barriers proposed for construction have all been along the edge of right-of-way or edge of residential property. TxDOT has not proposed any road closures in order to mitigate noise. Local citizens or cities have proposed road closures. Refer to the Response to Comment 3-2 for further discussion of roadway closures associated with proposed noise barriers.

Comment #3-22 (Commentor 191)

Living close to IH 10 with a Receiver CR21 reading of 67 decibels, my subdivision exceeds the noise standard. I am opposed to the toll facility and want to see the decibel reading without the toll road component.

Response

The noise level would be similar with or without the toll road operation as the traffic volumes would remain approximately the same. The previous proposal included managed lanes for high occupancy vehicles (HOVs) in the location that variable priced toll operation is currently proposed. Vehicles using the toll lanes will not have to stop and start again at toll plazas because electronic EZ tags will be the only method of payment. Under both the HOV and variable-priced toll proposals, vehicles will be operating in approximately the same manner and noise levels will be similar.

Comment #3-23 (Commentor 285)

I live on the south side of IH 10 between Chimney Rock and Voss. We currently do not have a wall and I'm concerned about noise impacts.

Response

Four noise abatement barriers are being proposed for the south side between Chimney Rock and Voss. Refer to the Responses to Comments 3-2 and 3-7.

Comment #3-24 (Commentor 151)

I'm very concerned about the increased noise levels at Woodsborough Circle subdivision, just north of IH 10 at Bingle road.

Response

Review of noise levels at Woodsborough Circle indicates that these residences will not exceed the noise abatement criteria for residences and will not be impacted.

Comment #3-25 (Commentor 95)

We need noise walls at Brighton Place Subdivision – walls are being placed on the south side of the freeway opposite us and will adversely affect our neighborhood.

Response

Review of the TxDOT IH 10 Project Plan schematics and the Harris County Appraisal District maps indicate that your property would be at least 1,700 feet away from the proposed IH 10 right-of-way. Refer to the Response to Comment 3-9 for a discussion of the noise analysis in this area. The Federal Highway Administration (FHWA) Traffic Noise Model does model the effects of reflections off noise walls; however, in most cases, reflected noise has a negligible effect upon noise levels at receivers opposite the wall.

Comment #3-26 (Commentor 234)

Sound barriers are necessary for Wilchester Elementary and Westchester Academy in addition to the surrounding neighborhood.

Response

The Federal Highway Administration's Traffic Noise Model analysis of Wilchester Elementary and Westchester Academy indicate that utilized portions of these properties are far enough away from IH 10 that they do not approach, equal, or exceed the noise abatement criteria for schools and are not impacted. Therefore, a noise barrier is not proposed in these locations.

Comment #3-27 (Commentor 33)

I live on the south side of IH 10 between Chimney Rock and Voss and the noise walls proposed are not a workable solution. They would require the donation of 5 feet of property and would have to be maintained by the homeowners association or the city.

There is the possibility that utilities could make the walls unconstructable. TxDOT is putting up too many obstacles to the construction of this wall.

Response

Refer to the Responses to Comments 3-2 and 3-7 for information about property donation for noise abatement barriers. In areas where barriers along the right-of-way are not possible due to commercial development, off-right-of-way barriers have been considered. This offers an alternative to not constructing a noise barrier at all. Any utilities that will be impacted by IH 10 expansion or noise barrier construction will need to be relocated. Please note that without unanimous agreement from all property owners adjacent to an off-right-of-way noise wall, the noise wall will not be constructed. Easements necessary for the construction on noise abatement barriers are estimated to be between ten and 15 feet wide.

Comment #3-28 (Commentor 231)

There is at present no noise abatement from Benignus to Attingham to Beltway 8 on the south side of IH 10. We already have excessive noise in this area.

Response

Residences between Benignus and Beltway 8 were modeled. However, these residences did not approach, equal, or exceed the Noise Abatement Criteria for residences and are not impacted. Therefore, a noise barrier is not proposed in this location. These residences are approximately 580 feet from IH 10.

Comment #3-29 (Commentor 238)

We want a noise barrier at Anne Street – the noise is already loud in our neighborhood.

Response

TxDOT is proposing a noise abatement barrier in that location.

Comment #3-30 (Commentor 245)

Sensors (receiver locations) to analyze noise have been strategically located where barriers could be erected. There are no sensors in our residential area at all. (13807 Kingsride)

Response

Receiver locations were chosen to model all front-row residences as well as a representative sample of front-row businesses. Properties adjacent to the south side of IH 10 in the vicinity of Kingsride are occupied by commercial businesses. These residences (within the Nottingham neighborhood) were modeled. However, these residences did not approach, equal, or exceed the Noise Abatement Criteria for residences and are not impacted. Therefore, a noise barrier is not proposed in this location. These residences are approximately 300 feet away from IH 10.

Comment #3-31 (Commentor 247)

A noise barrier is not proposed on the north side of IH 10 between Chimney Rock and Voss. I strongly recommend this area be considered.

Response

Refer to the Response to Comment 3-9 for a discussion of the noise analysis in this area.

Comment #3-32 (Commentor 282)

How high, thick, and deep into the ground are noise barriers?

Response

Most of the proposed noise barriers would be 16 feet tall. Some of the barriers would be taller, though none would exceed 20 feet in height. The proposed noise barriers would be approximately six inches thick. The depth of the proposed foundation would vary with each noise barrier and will be determined during final design of the project. Factors that will influence the depth of the foundation below ground level include, but are not limited to, the length and height of the barriers, the topography of the barrier locations, and the soil types present.

Comment #3-33 (Commentor 282)

What is the timing for noise barrier installation?

Response

Where possible, noise barriers will be constructed prior to reconstruction of IH 10. All barriers will be completed as soon as possible.

Comment #3-34 (Commentor 290)

Barriers should be raised to 25 feet if they can't be installed on elevated overpasses.

Response

The height and placement of noise abatement barriers is dependent on providing a 5-decibel noise reduction at a reasonable cost (up to \$25,000 per benefited receiver). Several barriers were modeled at heights greater than 20 feet tall. None of these configurations were both reasonable and feasible.

Comment #3-35 (Commentor 288)

Construct a high sound barrier from Atkins Road to Wirt Road. Land in this area has the potential to become residential.

Response

TxDOT does account for existing or platted residential developments in the noise analysis and does consider noise abatement where impacts are identified. TxDOT does not mitigate for potential developments that are speculative and not already planned. Under certain circumstances, TxDOT does model noise levels on a

vacant property to determine where impacts may occur so that future development can be planned to avoid impacts. Refer to Response to Comment 3-9 for a discussion of the noise analysis in this particular area.

Comment #3-36 (Commentor 308)

How much will noise change at Voss Road 1 mile south of IH 10? How much at Gessner and IH 10 at the buildings beside the service road? Please provide answer in decibels, before and after, at 5 p.m. on a weekday.

Response

A representative receiver, BR 103 located east of Gessner Road at the Ivy Club Apartments, has an existing (2001) noise level of 71 decibels and a predicted (2021) noise level of 74 dBA. The Federal Highway Administration (FHWA) Traffic Noise Model used peak-hour, the most heavily traveled hour during a typical weekday, traffic volumes operating at the posted speed limit. No receivers as far away from IH 10 as one mile were modeled. Receivers this far away would not be impacted by traffic noise from IH 10.

Comment #3-37 (Commentor 24)

TxDOT has not addressed noise issues related to the IH 610 and IH 10 interchange.

Response

Noise receivers have been modeled at four locations in the vicinity of the IH 610 and IH 10 interchange. However, noise barriers were not reasonable and feasible in the vicinity of the interchange. Refer to the Response to Comment 3-18.

Rail Alternatives

Comment #4-1 (Commentors 1, 9, 13, 14, 16, 25, 36, 40, 45, 49, 52, 57, 63, 67, 69, 78, 92, 108, 109, 111, 113, 119, 120, 123, 127, 130, 135, 136, 146, 149, 160, 163, 164, 172, 175, 177, 181, 187, 192, 198, 200, 204, 216, 222, 223, 231, 233, 237, 243, 244, 248, 249, 250, 262, 269, 275, 276, 285, 288, 305, 312, 317, 318, 327, 328, 331, 332, 333)

Many commentors advocate the dedication of right-of-way for some form of mass transit rail system rather than a toll facility. Proponents of rail claim that benefits of mass transit would be the reduction of the number of single occupancy vehicles on the highway and a related reduction of air pollution and noise impacts.

Response

TxDOT's purpose for the proposed IH 10 Project Plan is to increase facility capacity and address other traffic-related problems and needs of the IH 10 corridor. Traffic on the facility currently exceeds capacity. The proposed action would optimize existing public safety and roadway efficiency, while providing a more stable flow of traffic, reducing traffic congestion, and enhancing mobility. The preferred alternative not only meets the identified needs of the IH 10 facility, but also addresses potential environmental impacts such as air emissions and

noise. The preferred alternative has also been designed to accommodate rail if Houston METRO (METRO) in the future decides to pursue that option.

During the period that the Environmental Impact Statement (EIS) was developed, METRO had no plans for rail transit in the IH 10 corridor. Since that time, METRO has published and endorsed a regional High Capacity Transit Study, although follow up, in-depth studies have not been completed for any of the transportation corridors shown by the regional study to have potential for high capacity transportation. The IH 10 corridor, moreover, is not even among the three specific transportation corridors selected for the initial follow up, in-depth studies.

Funding for mass transit rails systems in the Houston area, moreover, is dependent on the outcome of a rail referendum scheduled for the fall of 2003.

Absent detailed study of the specific suitability of the IH 10 corridor for a mass transit rail system, and absent any current ability of METRO to fund such mass transit rail systems, TxDOT concludes that dedication of right-of-way in the TxDOT IH 10 Project Plan to purely speculative, future mass transit rail would be clearly inappropriate at this time.

Comment #4-2 (Commentor 272, 336)

Why weren't the railroad tracks already in place utilized for a rail system?

Response

The previous Union Pacific (UP) freight railroad track paralleling the Katy Freeway was not in a condition to permit operation by commuter rail or intercity light rail transit vehicles. The prior freight rail line would require rebuilding for either type of rail transit operation. During the prior freeway planning process and at the time the UP track was removed, METRO did not have any plans to consider rail transit in this corridor.

Comment #4-3 (Commentors 1, 107, 161, 195, 222)

Instead of light rail, an elevated guide way transit system should be constructed, preferably on the south side of IH 10.

Response

This comment is being transmitted to METRO for their information and consideration.

Comment #4-4 (Commentor 230)

I am opposed to using trains and would advocate the use of more METRO buses with designated bus lanes.

Response

The TxDOT IH 10 Project Plan will support the addition of express bus service in both directions. This comment is being transmitted to METRO for their information and consideration.

Comment #4-5 (Commentor 245)

Force people living further out to use transit – rail in particular – rather than expanding the freeway.

Response

TxDOT is not aware of, nor would it support, a method by which people living in some specified area could be forced to use a particular transportation mode in a corridor such as the Katy Freeway.

Comment #4-6 (Commentor 245)

Could developers be made to contribute a portion of their profits towards public transportation alternatives?

Response

There is no statutory requirement to make contributions to public transportation. Developer or other parties do have the option of making such contributions voluntarily.

Comment #4-7 (Commentor 136)

I have been paying a tax for rail for many years. Why should I have to pay a toll to use this route?

Response

No user of the Katy Freeway will be mandated to pay a toll to use this route. The proposed plan calls for additional frontage road lanes and added general-purpose lanes, in addition to the tollway. Commuters will be given a choice of which roadway or route they choose to use. Users of the rebuilt Katy Freeway will have the option of driving in the freeway lanes, paying a toll to drive in the less congested tollway lanes, or traveling in buses or HOV vehicles, which will have toll-free use of the tollway lanes.

Comment #4-8 (Commentors 9, 36, 338)

Has high-speed rail or Jet Rail been considered? This would be consistent with Federal Railroad Administrations Gulf Coast Corridor for high-speed rail.

Response

High-speed rail is not consistent with the purpose and need the TxDOT IH 10 Project Plan was intended to meet. The corridor is only 20 miles in length and would not accommodate high-speed rail due to the long distances required for high speed rail service to accelerate up to speed and back down.

Toll Roads

Comment #5-1 (Commentor 199)

I am interested in a public/private collaboration for capital costs for toll lanes. Are you planning to have the costs absorbed by the state and federal government or are you pursuing private investors who could regain their cost through tolls and then future revenues could be used for improvements on the Katy Freeway.

Response

Harris County Toll Road Authority (HCTRA) will issue bonds for the toll lanes and the revenues will be collected until the County is fully repaid or bought out by others (METRO; TxDOT). Revenues will also be used for toll lane operating and maintenance costs.

Comment #5-2 (Commentors 10, 16, 33, 45, 69, 197, 238, 249, 269)

With the proposed managed lanes, it appears that continuing congestion is part of the plan. If the main (free) lanes weren't going to be clogged from the beginning, why build toll lanes? What would be the incentive for people to pay tolls if the free lanes were uncongested?

Response

As related to the TxDOT proposal, METRO buses and High Occupancy Vehicles (HOVs) with three or more occupants (HOV3+) will be allowed to use the managed lanes for free and at a discounted rate. Single Occupancy Vehicles (SOV) and High Occupancy Vehicles with two occupants (HOV2) will pay tolls at all times. The tolls will be collected using electronic toll collection technology. The tolls will vary and may be increased or decreased to ensure that the lanes are fully utilized. By maximizing the use of spare capacity, the managed lanes can reduce congestion on general-purpose lanes. With such pricing, TxDOT anticipates that commuters will shift to other modes and increase carpooling.

Comment #5-3 (Commentors 191, 293)

I don't support the toll concept nor do I think the High Occupancy Vehicle (HOV) lanes would be effective. I would like to see one special use lane for cross-town traffic, especially trucks.

Response

The Houston-Galveston Area Council (H-GAC) mode share model indicates increases in bus and HOV3 usage with the toll road. Research indicates that people are willing to pay a toll and carpool if they have an opportunity to drive on less-congested facilities.

Comment #5-4 (Commentors 19, 197, 269)

How will people without an EZ tag use the tollway?

Response

The toll lanes will only be for EZ Tag users. All others will be directed to the free general-purpose mainlanes.

Comment #5-5 (Commentor 169)

Stop the requirement for three or more people per vehicle in the HOV lanes and go to two or more.

Response

In order to maintain a 50 mph speed or better and to encourage carpooling, the decision was made to allow only vehicles with three or more people free access to the managed toll lanes.

Comment #5-6 (Commentor 169)

We need full-time HOV in both directions with one lane for trucks only.

Response

High Occupancy Vehicles with three or more passengers (HOV3s) will be able to use the toll lanes free of charge from 6:00 a.m. to 11:00 a.m. eastbound and from 2:00 p.m. to 8:00 p.m. westbound, everyday. Refer to the Responses to Comments 5-3 and 10-8.

Comment #5-7 (Commentor 150)

The report presents no alternative analysis or cost/benefit analysis for the Toll Road Proposal. Why is the current toll road plan better than the original plan? Can't the objective of utilizing surplus space in the HOV lanes be accomplished more quickly and at lower cost by having Metro or TxDOT administer the program, rather than introduce another government entity? How do you justify replacing a federal/state grant for the construction with county bonds that have to be repaid with interest?

Response

The TxDOT IH 10 Project Plan, which includes the toll road, allows for greater transportation alternatives while still providing for buses and High Occupancy Vehicles (HOVs). The Harris County Toll Road Authority (HCTRA) can issue bonds. These bonds will allow funding for local transportation improvements. In this case, HCTRA is the best choice to administer the toll road program.

Matching federal grant money would not be replaced or lost. HCTRA funds can be used by TxDOT as part of its matching portion to the federal funds and will be repaid by user fees (tolls).

Comment #5-8 (Commentor 150)

Page 24, ES13, of the document notes, "The environmental documentation for this Proposal has been reviewed, and it has been determined that the proposed design refinements and proposed Toll Facility operation have no effects that would warrant additional analysis." This makes the heroic assumption that there will be no switching

from HOV3 or mass transit in the HOV lanes to SOVs. What is the basis for this assumption and are there any surveys or empirical evidence to support it?

Response

Refer to the Response to Comment 5-3.

Comment #5-9 (Commentor 150)

The current toll road proposal requires a 180-degree reversal in the state's traffic forecast for the HOV lanes. In a November 19, 1999, public meeting, Jim Darden, Director of Project Development, justified the four HOV lanes with the comment, "Darden said the ISTEA model shows there is a need for four HOV lanes, and they have to provide them before providing for single-occupancy lanes under the requirements of the federal Clean Air Act. 'It is a very complex problem,' he said, 'You have to balance the needs of traffic and air quality' " *Houston Chronicle*, October 21, 1999. Now the state is taking the position that there is space in the HOV lanes for large numbers of SOVs for 20 to 30 years to support the debt service and operating costs of the toll road proposal (otherwise it will be a burden to the taxpayers.)

Response

More recent studies show that TxDOT will be able to meet both the transportation needs and the air quality requirements with the managed lanes and prescribed single occupancy vehicle (SOV) lanes.

Comment #5-10 (Commentor 150)

The reevaluation report reviews and updates a number of aspects of the original FEIS. However, the state continues to rely on a 1995 rail study for the Katy corridor that is badly outdated. The rail option (alternate V-3 in the MIS) needs to be updated to reflect the current assumptions on demographics, economics, and ridership being used in all the other corridor studies now underway. On page 10, ES 6.2, of the reevaluation report the comment is made that guidelines for a MIS do not allow for the assumption of a regional rail system without a firm commitment by the local transit authority. While the state may not wish to speculate on a regional rail system, they need to update their assessment of rail to include connecting a Katy rail line to the rail system now under construction.

Response

TxDOT has made provisions to accommodate rail if in the future METRO wishes to pursue this option. See the Response to Comment 5-18.

Comment #5-11 (Commentor 150)

The reevaluation seems premature in that the MOU for the toll road indicates that a number of additional agreements will be concluded between TxDOT, Harris County and METRO. These agreements have material effect on the impact of the toll road on the community. Do you plan further reevaluation reports once these agreements are in place?

Response

The environmental impacts related to the mainlanes and value-pricing strategy have been analyzed in the Final Environmental Impact Statement (FEIS) and the FEIS Reevaluation. The agreements referenced in the comment would not have environmental impacts and further environmental analysis is not required.

Comment #5-12 (Commentor 150)

The last paragraph of page 2 of the MOU states that METRO will be limited to 25% of the capacity of the present HOV/Toll facility. How does TxDot justify increasing congestion by substituting lower occupancy vehicles for higher occupancy vehicles, as this clause requires? Shouldn't this be a risk factor for Harris County, rather than a penalty for drivers on the freeway? Aren't low-income drivers disproportionately hurt with this clause? How does TxDot square this clause with the CAA, which according to the previously quoted comments from the TxDot executive requires HOVs be given priority over SOVs?

Response

Goals of the TxDOT IH 10 Project Plan include maintenance of a 50 mph speed or better, maximization of toll revenue, and an increase in carpooling and transit use. The 25 percent clause sets a threshold at which adjustments to the operation of the toll lanes would be made in order to reduce congestion and maintain a 50 mph speed. Maintaining this speed is done primarily to ensure the uncongested flow of toll-free buses. The use of the toll-free mainlanes is available to all. See Response to Comment 5-9.

Comment #5-13 (Commentor 150)

One of the eligibility criteria given in the TEA Fact Sheet for Interstate Toll Pilot programs is: "an analysis demonstrating that the Interstate facility cannot be maintained or improved from current and future funding to be received under TEA-21 or from other sources without toll revenues." I do not believe that the IH 10 West expansion meets this requirement. No public official has taken the position that the toll road is necessary for funding the expansion. In fact, the toll road was not included in the project until 2001. By that time, funding using a combination of federal/state grants was already in place and TxDot had already filed the DEIS, hired consultants, submitted a schematic to the Federal Highway Administration, and set a construction start date of 2003.

Response

The Federal Highway Administration (FHWA) approved the inclusion of the toll lanes under the Value Pricing Pilot Program, Section 1216(a) of TEA-21, not the Interstate Toll Pilot program.

Comment #5-14 (Commentor 150)

Our Congressman, Rep John Culberson, has been a strong supporter of the toll road. His justification for the toll road in numerous public statements and reports to constituents has been to shorten the construction time of the expansion, not provide essential funding. Revenues from the toll road would only be used to maintain the toll facility, as required

by the Toll Pilot Program. No revenues would go to maintain the free lanes of the project, so the toll road cannot be justified for maintenance of the Interstate facility. It should also be noted that Metro charges HOV2 vehicles tolls in some of their HOV facilities now with the revenues going toward maintaining the facility. Therefore, Harris County's participation is not required to get this benefit.

Response

Refer to the Response to Comment 5-13 for information on the Value Pricing Pilot Program. HCTRA's participation is paying for the construction of the managed lanes, which will be operated as a variable-priced toll facility.

Comment #5-15 (Commentors 197, 300)

Carpooling with 2 or more people should be allowed for free on the tollways.

Response

Refer to the Response to Comment 5-5.

Comment #5-16 (Commentors 208, 293)

We've already paid taxes to build the road and I'm against having to pay money to use the road.

Response

Refer to the Response to Comment 4-7.

Comment #5-17 (Commentors 24, 45, 197, 332)

The decision to adopt a toll road is an illegal alternative under federal law because there was no prior analysis of the effect of toll road on low-income drivers.

Response

The Major Investment Study (MIS) that was conducted for the IH 10 facility recommended incorporating the managed lane option. That managed lane option could embrace a number of methods to "manage" the traffic flow, including express lanes, High Occupancy Toll (HOT) lanes, High Occupancy Vehicle (HOV) lanes, a combination of the two, or exclusive truck lanes. This managed lane option was carried forward in the environmental impact studies for the TxDOT IH 10 Project Plan. The Final Environmental Impact Statement (FEIS), for example, specifically states that the term Managed Lanes collectively refers to HOT, HOV, Special Use Lanes (SUL), and Diamond Lanes (DL).

The decision to implement tolling, which is a managed lane concept, was not made until after the Record of Decision (ROD) was approved and signed. The reevaluation was developed in part to look at the specific effects of tolling and other design changes to see if they were significant enough to warrant a Supplemental EIS.

The issue of whether low-income drivers would be disproportionately affected by tolling was addressed in the reevaluation. A low-income driver could be disproportionately affected if a highway were to be converted from a free facility to a fully-tolled facility, if this conversion were to cause low-income drivers to greatly increase their drive time or distance to reach their destinations. That is not the case for the TxDOT IH 10 Project Plan. Only the managed lanes are proposed to be tolled, not the entire facility. Low-income drivers will continue to have use of a free facility, a facility that will have an additional unrestricted mainlane in each direction and additional frontage road lanes throughout most of the project, resulting in better conditions than currently exist.

Additionally, with the TxDOT IH 10 Project Plan, Houston METRO (METRO) can operate, on a toll-free basis, 65 buses per hour, in each direction, 24 hours per day, seven days per week. METRO can also operate METROLift vehicles on the same basis as buses. This benefit is currently not available to METRO. TxDOT concludes that these improvements in mass transit service will increase commuter choice and encourage even more commuters to abandon their cars, leading to even greater traffic reduction and cleaner air. In addition, this improved transit service will benefit low-income travelers.

In view of the continued availability of a free facility, the added capacity of the general-purpose lanes and frontage roads, and the improved mass transit service benefiting low-income travelers, TxDOT concludes that further analysis of the impact of the TxDOT IH 10 Project Plan on low-income individuals is not warranted.

Comment #5-18 (Commentors 24, 197, 317)

The substitution of toll lanes for some of the HOV lanes under the TxDOT IH 10 Project Plan will make it impossible to substitute future rail facility for the toll lanes because METRO will be unable to retire the bonded debt necessary to finance the toll lanes.

Response

During the period that the Environmental Impact Statement (EIS) was developed, Houston Metropolitan Transit Authority (METRO) had no plans for rail transit in the IH 10 corridor. Since that time, METRO has published and endorsed a regional High Capacity Transit Study, although follow up, in-depth studies have not been completed for any of the transportation corridors shown by the regional study to have potential for high capacity transportation. For further information, please refer to METRO's draft "METRO Solutions."

Funding for mass transit rails systems in the Houston area, moreover, is dependent on the outcome of a rail referendum scheduled for the fall of 2003.

Absent detailed study of the specific suitability of the IH 10 corridor for a mass transit rail system, and absent any current ability of METRO to fund such mass

transit rail systems, TxDOT concludes that dedication of right-of-way in the TxDOT IH 10 Project Plan to purely speculative.

Managed/High Occupancy Vehicle (HOV) Lanes

Comment #6-1 (Commentor 74)

A few more HOV lanes and a toll lane are too many special interest lanes on a highway that not only takes Houstonians back and forth, but also is part of the main Southern Interstate Highway from Florida to California. Why not plan for the most lanes for all taxpayers to use and give METRO lanes on the feeder roads?

Response

The majority of traffic is local travelers who are commuters during peak rush hour periods. Starting in 1984, a High Occupancy Vehicle (HOV) lane was added to the Katy Freeway because more commuters could be moved in buses, vanpools and carpools than in single automobiles. Each bus has the capability of handling 50 commuters, which in turn, can remove up to 50 cars from the freeway during periods of highest demand. Currently, this single lane moves more people than in 1.5 to 2 adjacent freeway lanes. Dedicating space in a high-speed lane to METRO is a more efficient and effective use of limited pavement capacity.

Comment #6-2 (Commentor 74)

Why are the HOV lanes closed for two hours during midday? Why does it take 2 hours to change direction of an enclosed lane?

Response

Currently, the IH 10 High Occupancy Vehicle (HOV) lane is reversible, operating inbound in the morning and outbound in the afternoon. For safety reasons, a period of time must be set aside each day to close one direction of operation and reverse it for the opposing direction. During this reversal process, gates have to be closed and cones placed over each of the entrances, stalled vehicles and any debris removed, opposing direction gates checked and opened and the lane traversed by operations deployment personnel to ensure that the lane is safe for travel. Due to the extensive length of the reversible lane (over 12 miles) and number of access openings (five inbound and five outbound), this process can take up to two hours. The scheduled closure period is timed during typical hours when mid-day use of the freeway is typically lighter than the extended peak periods.

Comment #6-3 (Commentor 74)

Why aren't there more HOV entrances and exits?

Response

The current High Occupancy Vehicle (HOV) lane is intended to serve long-distance commute and transit trips, not trips shorter than five miles in length. The

access locations for the current facility were located to best serve METRO transit needs and connect to major transit routes, park & ride lots and transit centers. One of the frequent comments raised in earlier planning for the proposed improvements to the Katy Freeway was to make the HOV lane entrances and exits more accessible to other users, and this need would be addressed in the new Katy Freeway plan. Future entrance and exit ramps with the inner tollway lanes will be more frequent with the general freeway lanes, and most types of vehicles may take them.

Comment #6-4 (Commentor 229)

HOV lanes should be separated from SOV lanes by barriers – too many people break the rules west of SH 6 where there are no barriers.

Response

The managed lanes (toll and High Occupancy Vehicle (HOV)) will be separated from the general-purpose lanes by “candlestick” barriers.

Comment #6-5 (Commentors 9, 40)

HOV lanes should not have concrete barriers and be closed half the time. Run HOV lanes both directions with no walls.

Response

Refer to the Response to Comment 6-4. The managed lanes (toll and High Occupancy Vehicle (HOV)) will be open at all times. HOVs with three or more passengers will be able to utilize the managed lanes for free during certain hours of the day. Refer to the Response to Comment 5-6.

Comment #6-6 (Commentor 136)

Instead of HOV lanes, two contraflow lanes would make the expansion unnecessary if properly implemented.

Response

Traffic projections indicate that this corridor is not suitable for contraflow operations.

Drainage

Comment #7-1 (Commentors 43, 63, 91, 122, 160, 189, 192, 197, 198, 234, 237, 253, 282, 290)

Drainage is a big concern of residents along the IH 10 corridor. Many are concerned that the proposed roadway facility would increase the potential for flooding in their neighborhoods. Many advocate the use of the depressed roadway section and have voiced the opinion that they would rather have a freeway that flooded than neighborhoods that flood.

Response

TxDOT has considered how to mitigate the potential adverse impacts of the TxDOT IH 10 Project Plan on drainage in the IH 10 corridor. The TxDOT IH 10 Project Plan, moreover, complies with all applicable regulations regarding drainage and would not increase the potential for flooding in areas adjacent to the project. TxDOT is required by federal rule to maintain existing drainage patterns on every project. Federal rules require interstate highway mainlanes to be designed not to flood for a 50-year frequency flood event. In addition, federal rules require that the highways be designed to remain passable for a 100-year storm event. The need for maintaining uninterrupted passage along IH 10 for national security and emergency evacuation is of utmost importance; therefore, allowing the highway to flood on a regular basis is not included in the current improvement program.

Refer to comment 1-1 for further information on the drainage effects of a depressed freeway structure.

Comment #7-2 (Commentor 290)

Please provide the details of the total size of stormwater detention systems and their location.

Response

Section	Detention Basin Location	Estimated Detention	
		Storage Volume (ac-ft)	Surface Area (ac)
1 & 2	Northwest quadrant of IH 10 / IH 610 interchange	2.3	0.6
	Northeast quadrant of IH 10 / IH 610 interchange	21.0	3.0
	Southeast quadrant of IH 10 / IH 610 interchange	3.2	0.8
3	Near Sta. 1833+00 (S. of IH 10, West of Niemann Branch)	2.2	0.7
	Near Sta. 1835+00 (S. of IH 10, East of Niemann Branch)	6.9	1.2
4	West of Spring Branch, N. of IH 10	14.0	2.0
5	Near Rummel Creek (North of IH 10, West of BW 8)	102.0	5.6
	Near Rummel Creek (South of IH 10, West of BW 8)	99.0	10.5
	(Storage may be adjusted upon completion of Mitigation Study)		
6	West of Turkey Creek near Dairy Ashford (S. of IH 10)	16.3	1.8
7	Approx. 600 ft West of Langham Creek (N. of IH 10)	42.5	5.3
	Under SH 6 Overpass, S. of IH 10	1.6	1.0
8	Near Cypress Run (S. of IH10)	73.9	8.5
	Near Barker Cypress (S. of IH10)	19.5	3.1
	Near Park Ten (S. of IH 10)	54.0	6.1
9	Near Mason Rd., S. of IH 10	13.0	2.8
	Near Fry Rd., S. of IH 10	18.0	4.0
10	Near Pin Oak Rd., N. of IH 10	21.4	2.9
TOTAL		510.8	60.0

Comment #7-3 (Commentor 19)

I'm told all retention ponds are open to the top. Some cities cover them and use the space for businesses or parking.

Response

As currently planned, all detention ponds are open-topped. Preliminary discussions have been held with METRO regarding constructing a parking lot over the large detention pond proposed in the Southwest quadrant of the Beltway 8 interchange.

Comment #7-4 (Commentor 269)

If SH 6 can be used as a detention pond, why can't IH 10?

Response

The portion of SH 6 that experiences periodic flooding is the portion of the highway that is within the limits of the Addicks Flood Control Reservoir. Unlike IH 10, which is a major interstate highway that is designed as a route for national security and emergency evacuation, a minor portion of SH 6 lies within the Addicks Reservoir.

Comment #7-5 (Commentor 136)

What is the date of the 100-year flood plan map used?

Response

100-year flood plain elevations were based upon 1999 updates to the existing flood plain maps and studies.

Comment #7-6 (Commentor 272)

None of the maps or diagrams show Barker Dam, Addicks Dam or the fault line running NE to SW at about the Beltway 8 intersection. How do you plan to avoid these potential problems?

Response

No proposed construction is planned in the reservoir areas. The final design includes provisions for spanning the fault lines in the vicinity of Beltway 8 and IH 610 interchanges.

Comment #7-7 (Commentor 118)

The KCC proposes lowering the freeway and pumping floodwater to retention areas. Where would these areas be? Could the water be pumped to the Addicks Flood Control Basin?

Response

The KCC concept does not identify the details of the retention ponds. The shifting of stormwater flows to another drainage basin is not allowed under federal and state law.

Refer to the Response to Comment 7-1

Comment #7-8 (Commentors 205, 249)

A depressed freeway will help serve as drainage and retainage (in lieu of our neighborhoods) when the future brings more torrential rains and associated flooding.

Response

Refer to the Response to Comment 7-1

Comment #7-9 (Commentor 197)

Why are there no new detention ponds on the north side of IH 10 between the Beltway and Wirt Road?

Response

The detention requirements at the Beltway 8 interchange will be accommodated in the two new ponds immediately southwest and northwest of the interchange. The detention requirements between Beltway 8 and Bunker Hill will be accommodated with subsurface detention basins in large storm sewers under the frontage roads. The detention requirements between Bunker Hill and Wirt Road will be accommodated in the proposed detention basin on the west bank of Spring Branch Creek, immediately north of IH 10 and just west of Wirt Road. This basin will prevent drainage impacts to Spring Branch. The proposed storm sewer along the north side of IH 10 from Campbell to Briar Branch and from Briar Branch to Spring Branch will facilitate drainage of this section and prevent impacts to Hunters Creek Branch or Briar Branch. Refer to the Response to Comment 7-2.

Comment #7-10 (Commentor 24)

There is a substantial difference between the storm water mitigation conclusion of the Final Environmental Impact Statement (FEIS), which cites zero impact on floodway and floodplain elevation, and the Reevaluation Report, which cites minimal impact.

Response

The FEIS concludes that none of the evaluated alternatives would increase the base flood elevation to a level that would violate applicable floodplain regulations and ordinances. The FEIS Reevaluation restates the same conclusion.

Comments in Favor

Comment #8-1 (Commentors 21, 31, 35, 54, 59, 62, 66, 80, 86, 93, 103, 106, 134, 138, 141, 171, 183, 193, 206, 212, 215, 220, 221, 225, 226, 235, 252, 254, 255, 291, 298, 303, 323, 340, 342)

A number of commentors expressed frustration regarding the current congestion on the Katy Freeway and believe that all efforts should be made to expand the Katy Freeway as soon as possible.

Response

TxDOT will proceed with this project as soon as possible.

Comment #8-2 (Commentors 15, 26, 115, 219)

The information provided at the public meeting, including the exhibits and slide presentation, was clear and effective.

Response

Comment noted.

Comment #8-3 (Commentors 96, 98, 104, 252, 254, 257, 291)

I support TxDOT's plan as presented.

Response

Comment noted.

Comment #8-4 (Commentors 17, 33, 110, 126, 133, 240, 251, 290, 313)

Please make this expansion a showpiece for the rest of the nation and stay away from pressure to follow any design that doesn't meet our needs. Be certain the IH 10 plan is a sound one for the long term with the complete consideration of pollution, noise, aesthetics and flooding issues. Take this opportunity to do the right thing for the cars and the people of Houston.

Response

This is, and continues to be, TxDOT's goal.

Comments Opposed to Major Roadway Expansion

Comment #9-1 (Commentors 89, 111, 210)

I am opposed to the planned expansion of IH 10.

Response

Comment noted.

Comment #9-2 (Commentor 155)

The whole thing should be squashed in light of world events.

Response

Comment noted.

Operational Comments

Comment #10-1 (Commentors 16, 69)

The highway is now terribly overcrowded and adding lanes will not relieve the congestion, but increases it in the relatively short term. With increased congestion will come increased air pollution and environmental degradation.

Response

TxDOT studies indicate that the proposed improvement will provide relief in the form of improved mobility and incentive for carpooling and transit. In addition, the proposed improvement as well as other transportation improvements are part of the current-air-quality-standard-conforming Houston Galveston 2022 Metropolitan Transportation Plan and Fiscal Year 2002 – 2004 Transportation Improvement Program. Refer to the Responses to Comments 2-1 through 2-9 for more information regarding air quality.

Comment #10-2 (Commentors 16, 69, 81, 82, 180, 197, 241, 251, 280)

There are too many access and egress points along the highway. Local traffic should be separated from through traffic. The new design does not resolve this and wider frontage roads will encourage more commercial development and more local traffic. People get on at one entrance ramp and off at the next just to avoid a stoplight.

Response

The freeway has been designed to maximize freeway operations and to encourage use of the frontage roads for distribution.

Comment #10-3 (Commentor 219)

The construction of a frontage road along IH 10 between Washington and Shepherd is unnecessary. Construction would destroy trees; create additional noise and excessive lighting.

Response

Frontage roads are necessary to provide for local traffic distribution as an alternative to having local traffic on the mainlanes. This proposed frontage road is being constructed within the existing right-of-way and the environmental impacts have been assessed. The trees that are being impacted are within the TxDOT right-of-way and appropriate replacement landscaping will be provided. Noise barriers will be provided if reasonable and feasible.

Comment #10-4 (Commentors 20, 60, 148, 158)

Current plans eliminate the Silber exit going west on IH 10 and require a westward trip on the service roads to Wirt to go back east in order to gain access to the north or south loop 610. The removal of this exit will cause detrimental congestion on the frontage roads and communities east of Wirt Road. Why would TxDOT create permanent major traffic congestion from the west loop to Wirt and in the communities both north and south of IH 10? Suggestions to resolve this issue accompany the comment.

Response

For safety reasons, the westbound Silber exit had to be eliminated. The current plan includes a new ramp to Old Katy Road east of IH 610 interchange. This ramp will serve as the replacement for the existing Silber ramp and provide improved access to places such as the new entertainment center located in the Silber area. The suggestions provided with the Comment were examined, but due to design standards could not be incorporated.

Comment #10-5 (Commentors 20, 158)

There is no provision in the current plan for traffic from North Silber to get onto IH 610 without going west on IH 10 service roads and u-turning at Wirt/Chimney Rock. This circulating traffic will load down the service roads. Suggestions to resolve the issue accompany the comment.

Response

For safety reasons and because the current configuration does not meet roadway geometry standards, the existing eastbound Silber entrance ramp had to be eliminated. Users can still access IH 610 via Post Oak Road to the IH 610 southbound frontage road and via Post Oak Road and Old Katy Road to the IH 610 northbound frontage road.

Comment #10-6 (Commentors 160, 211)

How many lanes will the freeway have (HOV included)?

Response

The facility will have at least nine lanes (four mainlanes, two toll/High Occupancy Vehicle (HOV) and three frontage roads) in each direction plus ramps and auxiliary lanes. The exact number of lanes depends upon the location.

Comment #10-7 (Commentor 293)

I would like to see a raised highway over Westheimer into Galleria and Downtown.

Response

The suggested work is outside the scope of the TxDOT IH 10 Project Plan.

Comment #10-8 (Commentors 9, 81, 82)

Trucks should be made to use the right hand lane.

Response

A pilot program, initiated by the City of Houston on restricting truck travel to specific lanes along IH 10, east of the City, has taken place. The results of this pilot program are being reviewed by TxDOT and Texas Transportation Institute (A&M).

Comment #10-9 (Commentor 124)

We need two right turn lanes on southbound Wirt Road at IH 10.

Response

The traffic volume modeling projections for this intersection do not warrant two right-turn lanes.

Comment #10-10 (Commentors 169, 326)

The facility should have 18 lanes maximum.

Response

The basic facility has 18 lanes. However, designing for safe transitions at access points (on and off ramps) requires additional lanes, called auxiliary lanes. Refer to the Response to Comment 10-6.

Comment #10-11 (Commentor 223)

The expansion of the Katy Freeway into a twenty-lane thoroughfare will bump into 610. How will these lanes full of traffic integrate into the 610 system or Beltway 8? Does this mean that we will be rebuilding the adjacent loops that criss cross the Katy to 20-something lane freeways also?

Response

The highway connections to IH 610 and Beltway 8 have taken into consideration a projected growth in travel demand. Provisions are underway for expansion of the Beltway with one additional lane in each direction. Refer to Responses to Comments 10-6 and 10-10.

Comment #10-12 (Commentor 318)

Signage should be improved on IH 10 – it's too faded and poorly placed currently. Drivers need a large sign across the freeway several hundred feet before they need to make lane decisions.

Response

The project will include total replacement and upgrade of the signage to meet current state and federal requirements.

Comment #10-13 (Commentors 229, 269)

SH 6 needs direct connector ramps towards downtown due to congestion. SH 6 is a bottleneck.

Response

The current plan for improving SH 6 includes an IH 10 grade separation for SH 6 north-south through-traffic. The current design addresses the congestion.

Comment #10-14 (Commentors 230, 241)

IH 10 should have designated truck lanes, cross-country toll lanes, and lanes for the general public.

Response

The TxDOT IH 10 Project Plan provides for toll lanes and general-purpose lanes. Trucks may be allowed to operate in the managed lanes as a toll user. Refer to Response to Comment 10-8.

Comment #10-15 (Commentor 237)

There are too many grade-level changes – freeway should be more level.

Response

Refer to Response to Comment 1-8.

Comment #10-16 (Commentor 254)

The right hand turn lane from S. Dairy Ashford to eastbound IH 10 appears to be too short and should be lengthened. This should occur at other intersections as well.

Response

The analysis of turning movements at all intersections is included in the TxDOT design process. Turning lanes are designed to accommodate projected traffic volumes and meet all applicable design standards.

Comment #10-17 (Commentor 164)

Eighteen-wheelers should be restricted from using IH 10 and 610 except during the hours from 9 p.m. to 5 a.m.

Response

Such a restriction would have to be legislated at the federal level before it could be implemented and enforced.

Comment #10-18 (Commentor 105)

I have concerns with traffic operations at Katy Fort Bend Road. The state design can accommodate a dedicated right turn lane at Katy Fort Bend Road. The exit ramp design in the proposed plan reduces all traffic to one single lane headed toward Katy Mill Mall. Will this single lane be able to accommodate the heavy traffic? Especially during the holidays?

Response

The current state design meets all applicable standards. The Katy Mill Mall will be accessible by three successive westbound exit ramps.

Comment #10-19 (Commentor 105)

I'm concerned with adequate signage and exit/entrance ramps to Katy Mill Mall.

Response

The TxDOT IH 10 Project Plan signage complies with the TxDOT Texas Manual of Uniform Traffic Control Devices standards. TxDOT is working with local officials to explore the options that could be accommodated under these standards.

Comment #10-20 (Commentor 105)

I'm concerned that the Grand Parkway fly over ramp design will cause bottlenecks similar to those at Beltway 8. Traffic is being reduced to one lane, which could cause traffic flow problems during peak traffic hours and the holiday shopping season.

Response

The Grand Parkway fly over ramps are not part of this program and are currently still in the planning stages for future implementation. Improvements to the ramp concepts can only begin after the design is developed and refined.

Comment #10-21 (Commentor 105)

Why can't drivers continue on a straight path through Katy Fort Bend Road, heading west?

Response

The frontage road improvements and the new US 90 grade separation being made require that the US 90 alignment be altered in this area.

Comment #10-22 (Commentor 197)

The IH 10 eastbound mainlane entrance ramp should be moved westward to prevent motorist from cutting through our subdivision and using Benignus Road to access the freeway instead of going through the Gessner intersection. This is a very dangerous situation.

Response

The design of the various ramps in this area meets all current and applicable design standards. There is not sufficient separation between the ramps in this area to move the entrance further west. This comment is more appropriately directed to the local authorities of the City of Houston.

Construction

Comment #11-1 (Commentor 171)

Expansion of the section between Beltway 8 and the 610 loop should occur first to reduce bottlenecks further west.

Response

The schedule for construction of this portion of the TxDOT IH 10 Project Plan is determined by the schedule for acquisition of property and relocation of utilities to clear the right-of-way for highway construction. Construction is scheduled to commence as soon as practical.

Comment #11-2 (Commentor 95)

Expansion of the section from Beltway 8 west should occur first to allow time for redesign on the section from the Beltway to the Loop.

Response

Refer to the Response to Comment 11-1.

Comment #11-3 (Commentors 47, 63)

When the project is under construction, what alternative routes will be available to commuters who usually travel IH 10? What studies have taken place to reroute the traffic flow into and from Katy? How was the study conducted? What governmental agencies participated in the study? What is the projected number of commuters that is anticipated during each year of the expansion and how will the increase be dealt with? What are the results of the study? Will there be any truck lane restrictions during construction and after?

Response

Based on the proposed traffic control plan for construction sequencing, the available number of lanes will remain the same during construction as before construction. TxDOT has evaluated and coordinated with other agencies to explore other thoroughfare options parallel to IH 10 such as Clay Road, FM 529, FM 1093, Park Row, Westview and others. In addition, TxDOT is continuing to evaluate major intersections where minor improvements may be warranted. No truck lane restrictions are proposed.

Comment #11-4 (Commentor 139)

During construction, the State requires the construction contractors to maintain at least the same number of freeway and HOV lanes open during the peak periods that were in operation prior to construction. What is the definition of peak periods?

Response

Peak periods are defined as from 5:30 a.m. to 9:30 a.m. and from 3:00 p.m. to 7:00 p.m. The corridor does experience other peak hours, especially during the lunch hour.

Comment #11-5 (Commentors 47, 160)

What is the construction schedule for the project? I'd like a detailed plan laying out the dates certain parts of the freeway will be under construction.

Response

The current schedule has been posted on the Project Website (www.Katyfreeway.org). If more detailed information is required, an appointment can be made to visit the Program Office, located at 11757 Katy Freeway, Suite 1100.

Comment #11-6 (Commentor 32)

I strongly suggest using transverse contraction joints placed at a slight diagonal (1:10 to 1:12) across the lanes to improve load transfer, reduce pavement joint edge failure, reduce soil pumping from under the joint and reduce noise as tires cross at an angle.

Response

The current design meets TxDOT standards.

Comment #11-7 (Commentor 18)

I don't understand why construction has to take 10 years (excluding the tollway funding which apparently reduces that time to 6 years). Why can't funds be allocated over a six-year period (and leave out the tollway)?

Response

The current schedule has highway construction commencing in 2003 and the anticipated completion in early 2009.

General Comments

Comment #12-1 (Commentors 3, 42, 53)

I live adjacent to the highway and have children who play outside on a daily basis. What kind of health risks will they face with the expanded facility? Will they be safe living so close to the freeway?

Response

Based on the air quality analysis in the Final Environmental Impact Statement (FEIS), the expanded facility is not expected to increase health risks. Six pollutants are of concern with regards to air quality in urban areas including: ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, particulate matter, and lead. The Houston-Galveston area (Harris County and the surrounding seven

counties) currently exceeds federal requirements for ozone only. Based on the results of the air quality analysis, no violations of the federal air quality standards are expected as a result of implementing the proposed project. Refer to the Responses to Comments 2-1 through 2-9 for more information regarding air quality.

In addition, as currently planned, the expanded facility should reduce safety risks. The design calls for provisions that more safely serve pedestrians and pedestrian movement along and across the freeway. All cross-street intersections will have sidewalks and pedestrian crossings and will be in compliance with the Americans with Disabilities Act (ADA). In general, continuous sidewalks will also be constructed alongside each frontage road.

Comment #12-2 (Commentors 43, 53, 233)

How will the proposed project affect my property values? TxDOT pays for property that has to be vacated for highway expansion. Why doesn't TxDOT pay people who have to live with extra pollution, extra flooding and extra health and security risks?

Response

TxDOT does not predict how reconstruction of IH 10 or any other roadway project will affect adjacent property values. The state is required by law to compensate property owners for property that is acquired for any transportation project. The state is not permitted to pay for property that is not required for the construction and/or operation of any roadway facility. However, all reasonable and feasible efforts are made to mitigate adverse environmental impacts.

Comment #12-3 (Commentors 24, 227)

I'm concerned about the potential impact of traffic expansion plans on Memorial Park. I encourage TxDOT to avoid any loss or impact to Memorial Park.

Response

No property will be required from Memorial Park along IH 10 in connection with the TxDOT IH 10 Project Plan. But, there is a possibility that a very small area of Memorial Park alongside the IH 610 frontage road will be required for the separate highway project involving the renovation of IH 610. If a portion of the parkland is needed, TxDOT will donate to the City of Houston, for inclusion into Memorial Park, a parcel of adjacent land larger than that taken for the IH 610 project. For additional information on the possible impact of the IH 610 project on Memorial Park, please see the IH 610 Environmental Assessment which is available from the TxDOT Houston District Office.

Comment #12-4 (Commentor 90)

I understand that feeder lanes of the IH 10 extension/610 loop will impact adversely on Herman Park facilities.

Response

No property will be required from Herman Park under the TxDOT IH 10 Project Plan.

Comment #12-5 (Commentors 48, 95, 137, 157, 160, 173, 239, 242, 278, 309, 317)
A media advisory was issued by the office of Congressman John Culberson announcing that a tri-party agreement between FHWA, TxDOT and Harris County regarding IH 10 will be signed on March 14, 2003. By sending this advisory prior to the end of the public meeting comment period, these entities are 1) deceiving the public, 2) influencing public response to the reevaluation and 3) totally undermining the public participation process.

Response

The tri-party agreement between FHWA, TxDOT and Harris County regarding IH 10 was signed on March 14, 2003. The tri-party agreement, however, relates only to the manner in which the work on IH 10 is to be financed. The tri-party agreement does not commit the state to the TxDOT IH 10 Project Plan, nor does it affect the public involvement process. Financing arrangements are routinely executed before final project approvals. Failure to establish such agreements prior to commencement of construction would be irresponsible. All comments received during the official comment period have been reviewed and the responses are included in this report.

Comment #12-6 (Commentor 96)

I question the traffic volumes at Antoine, particularly the northbound peak hour through volume of 1100. Since Antoine dead ends at Memorial, I do not see how 1500 northbound vehicles are generated. In addition, the westbound Antoine exit volume appears high at 1800 vehicles. This may have been an existing condition of the facility as vehicles traveled the frontage road from Silber to Beltway 8 to avoid mainlane congestion, but with 2 additional lanes, I don't believe that 1800 cars will be exiting and that two exit lanes are warranted.

Response

Forecast traffic volumes were generated from traffic data provided by the Houston-Galveston Area Council (HGAC), a regional multi-governmental body responsible for tracking and providing traffic forecasts based on past and current trends in growth. The forecasts used were calibrated from prior traffic growth for this intersection and this part of the corridor as part of the corridor analysis performed by TxDOT.

Comment #12-7 (Commentors 157, 165, 283)

No work should be done at IH 10 and 610 until further debate clarifies what should be done.

Response

Construction will not begin until approval of the project design and the environmental analysis (Final Environmental Impact Statement (FEIS) Reevaluation) is received from the Federal Highway Administration (FHWA).

Comment #12-8 (Commentor 259)

Reevaluation of the Final Environmental Impact Statement is a violation of every aspect of public participation and the commenting process.

Response

A reevaluation of a transportation project and its associated environmental document is undertaken when substantial changes to the project design or changes in the environmental impacts have occurred since the previous environmental approval or when major steps to advance the action have not occurred within three years of the previous approval. (A Supplemental Environmental Impact Statement (SEIS) is required only when substantial changes in a project are determined to have significant environmental impacts.) The Record of Decision (ROD) for the Final Environmental Impact Statement (FEIS) for the TxDOT IH 10 Project Plan was issued on August 30, 2002. Since then, a number of design and operational refinements were made during the detailed design efforts of the project that were addressed in a reevaluation. The reevaluation also addresses certain issues developed in more detail since the FEIS relating to noise, air quality and drainage. Although not required, a public meeting was held to inform the public of these project design refinements and to solicit input. TxDOT has followed the rules and regulations governing the environmental process throughout the TxDOT IH 10 Project Plan history.

Comment #12-9 (Commentors 23, 187)

What is the fate of the office building on the northwest corner of Wirt and the access road?

Response

This office building will be acquired and then demolished. It will be replaced with green space and a noise abatement barrier is proposed along the TxDOT right-of-way line in this area.

Comment #12-10 (Commentor 170)

I know that you will take into consideration the safety and well being of the 500 elementary school students (school off of IH 10 at 502 Addicks Howell Road) as you plan for the actual groundbreaking and on-going construction.

Response

There may be localized effects to air quality levels (e.g., increase in dust) in the area immediately surrounding the project site during construction; however, these effects will be temporary. Measures to control dust will be considered and incorporated into the final project design and construction specifications.

Comment #12-11 (Commentors 16, 197, 204, 233)

The proposed design looks like a 1950's design and possibly uglier. Have aesthetics been considered?

Response

Aesthetics were considered in the IH 10 design and have influenced such design elements as bridges, walls, noise barriers, surface pavement, signage, and landscaping plans. Detailed design guidelines have been established to ensure consistency and harmony among the design elements and with an attention to selection of pleasing shapes, sizes, colors, patterns and proportions among these elements.

The goal is to add certain architectural improvements to the planned highway so that the highway will be an asset to the communities through which it runs. In addition, the local communities are encouraged to incorporate similar elements into their own common areas and individual properties.

Comment #12-12 (Commentor 82)

A budget of more than 1% of construction costs must be considered to provide noise abatement, environmental protection and aesthetics.

Response

TxDOT has a Construction Landscape Program that authorizes one percent of a TxDOT District's entire added capacity project budget to be spent on landscaping. This program does not restrict expenditures for noise abatement, environmental protection or aesthetics. As part of the TxDOT Houston District's Green Ribbon Master Plan, landscaping is an integral part of the TxDOT IH 10 Project Plan. The landscaping money has already been allocated.

Comment #12-13 (Commentors 11, 175, 197, 204)

We need to plant more trees between the mainlanes and the feeders.

Response

The TxDOT IH 10 Project Plan calls for more landscaping along the Katy Freeway corridor, including planting approximately 28,000 trees between Beltway 8 and IH 610. TxDOT estimates that approximately 99,000 trees will be planted along the length of the entire project corridor. The safety of the traveling public and the location of underground utilities are major concerns with regard to planting trees adjacent to or in between roadways. Trees are not typically planted in utility easements so that vegetation would not have to be removed or damaged during utility upgrades or relocations. The landscaping design is also developed to minimize the hazards to a driver who accidentally leaves the roadway.

Comment #12-14 (Commentor 196)

I request that the 5-foot sidewalks planned on the north side of IH 10 between North Post Oak Blvd and Beltway 8 be widened to 6-10 feet wide to provide safer and more spacious pedestrian access.

Response

The current plan meets all design and safety standards for sidewalks including, among other things, the Americans with Disabilities Act (ADA).

Comment #12-15 (Commentor 277)

I'm concerned about the impacts on the smaller commercial properties along IH 10. Has an analysis been done to determine how they will be impacted?

Response

TxDOT has not undertaken a specific and separate socio-economic analysis to determine the impacts to small commercial properties along the IH 10 corridor. However, the socio-economic analyses completed in the Final Environmental Impact Statement (FEIS) and the reevaluation demonstrates that the proposed project will not have long-term adverse impacts to neighborhoods or community cohesion.

Comment 12-16 (Commentor 24)

The Final Environmental Impact Statement (FEIS) and Reevaluation Report consideration of the no build alternative was invalid because it was based the same assumptions regarding land, population and employment forecasts as the build alternative.

Response

The Houston-Galveston Area Council (HGAC) is responsible for the development of the regional land use and population figures. The FEIS and the Reevaluation Report were predicated on information from HGAC that the increase in capacity of IH 10 due to the TxDOT IH 10 Project Plan will decrease current traffic congestion but will not increase traffic volume beyond currently forecasted levels. TxDOT has concluded that the same evolutions of land use, population change and employment levels will occur in the area of IH 10 regardless of whether IH 10 capacity is increased or not and whether IH 10 congestion is decreased or not.

Comment #12-17 (Commentors 10, 24, 197, 259)

Public comments submitted on the Reevaluation Report will not be considered before a final decision is made.

Response

TxDOT and the Federal Highway Administration (FHWA) will consider all timely public comments before a final decision on how to proceed with the TxDOT IH 10 Project Plan is made.

Comment #12-18 (Commentor 204)

Billboards should not be allowed along the freeway.

Response

Neither TxDOT nor the Federal Highway Administration (FHWA) has the power to ban outdoor advertising that is beyond the IH 10 right-of-way. Outdoor advertising beyond the right-of-way is subject to limited restrictions under both federal and state law and also under the various municipalities' local ordinances. The decision on restricting any of the outdoor advertising is primarily vested in the municipalities through which the IH 10 project passes and your comment would be more appropriately directed to those local authorities. TxDOT will ensure that all outdoor advertising along the IH 10 corridor that lies within its jurisdiction fully complies with all applicable federal and state laws.