Kirby Parkway (Shelby Farms Parkway)

Memphis, Shelby County, Tennessee

Walnut Grove Road to Macon Road

Dispositions to Comments from Section 4(f) Determination presented in the Supplemental Final Environmental Impact Statement and Meeting on May 3, 2012

August 2013

Table of Contents

Attachments*

A SFEIS (signed January 30, 2012)
B April 13, 2011 SFPAT PowerPoint Presentation
C April 13, 2011 SFPAT Meeting Minutes
D 2005 Traffic Forecasts (Used by SFPAT)
E April 26, 2006 Letter
F Public Hearing Notices
G SFPAT Recommendations
H FIRM Mapping
I Weaving Graphics
J Preliminary Field Review Plans
K April and August 2005 PowerPoint Presentations on Traffic for SFPAT
L Memphis Urban Area Long Range Transportation Plan (LRTP)
M 2012 Traffic Forecasts (to be Used in Final Design)
N Comparison of Traffic Analysis from 2005 to 2012
O Roundabout Entering and Circulating Volumes
P Intersection Level of Service Calculations
Q Updated Land Use Map
R Select Link Analysis Summary Report
S Notice of Limitation of Use and Arboretum LWCF Grant

* Attachments are provided electronically upon request.

Introduction

The city of Memphis, in conjunction with the Federal Highway Administration (FHWA) and the Tennessee Department of Transportation (TDOT), is proposing to construct the 2.5-mile Kirby Parkway (Shelby Farms Parkway) from Walnut Grove Road to the intersection of Whitten and Macon Roads in Memphis, Shelby County, Tennessee. The new road design consists of a four-lane, median-divided, access-controlled highway. The entire Kirby Parkway project study area involves a 10-mile-long north-to-south corridor in eastern Shelby County. The new route will facilitate not only through traffic between Interstate 240 (I-240) and I-40, but it will also serve the commuting populations of Bartlett, Germantown, and the surrounding residential areas via improved connectivity.

The National Environmental Policy Act of 1969 (NEPA) applies to this project since federal funds are being utilized; the FHWA oversees the process. This document provides responses from TDOT to comments made regarding the Section 4(f) *de minimis* determination that was presented to the public through the signed Supplemental Final Environmental Impact Statement (SFEIS). A number of NEPA documents have been approved to this point:

- August 1991: Final Environmental Impact Statement
- November 1991: Record of Decision
- March 2001: Environmental Reevaluation
- October 2007: Supplemental Draft Environmental Impact Statement
- January 2012: Supplemental Final Environmental Impact Statement

Numerous NEPA public meetings have been conducted throughout the process to include the public in the decision-making process. A final NEPA Public Hearing will be held in the fall of 2013, where final design plans and an additional Section 4(f) determination will be presented, followed by a 30-day comment period.

Responses to Section 4(f) *de minimis* determination in the Supplemental Final Environmental Impact Statement (SFEIS)	
Name and Address	**Comment/Question** *Disposition in red*
Dan Frazier, AICP Memphis MPO 125 N. Main Street, Room 450 Memphis, TN 38103 (901) 576-7218 Dan.Frazier@memphistn.gov	Requested copy of SFEIS for Metropolitan Planning Organization (MPO) office *Joe Matlock of the Tennessee Department of Transportation (TDOT) sent an e-mail link To Mr. Frazier on 3/27/12*
Lorna Dries ProQuest 620 South Third Street Louisville, KY 40202 (502) 569-1279 Lorna.Dries@proquest.com	Requested copy of SFEIS *Joe Matlock of TDOT sent an e-mail link To Ms. Dries on 3/27/12*
Kim Taylor City of Bartlett ktaylor@cityofbartlett.org	Requested copy of SFEIS *Joe Matlock of TDOT sent an e-mail link To Ms. Taylor on 3/27/12*
Martha Waldron Martha.waldron@gmail.com	Ms. Waldron originally e-mailed Ed Harsson at the Tennessee Wildlife Resources Agency (TWRA) about the project. Mr. Harsson copied TDOT in his response. Ms. Waldron also contacted Donald Davenport at the U.S. Army Corps of Engineers (USACE). Mr. Davenport has not heard of the project. Ms. Waldron's concerns are regarding the 100-year floodplain and breach in the Memphis Aquifer. *Although a Section 404 Individual permit is not required, USACE has commented on the proposed project. USACE submitted comments to TDOT regarding the Supplemental Draft Environmental Impact Statement (SDEIS) on June 4, 2007, to which TDOT responded on July 17, 2007. On October 17, 2007, TDOT submitted an updated, approved version of the SDEIS to USACE for additional comment. The SFEIS has not yet been distributed to USACE for comment.* *See pages 69-73 of the SFEIS in Attachment A of this document. With the application of the aforementioned*

Martha Waldron Martha.waldron@gmail.com	*commitments and other mitigation measures, it is not expected that the construction or maintenance and operations of Kirby Parkway through Shelby Farms will negatively impact the Memphis aquifer or its water quality. According to Dr. Jerry Anderson of the Groundwater Institute, reports have indicated that the groundwater supply most susceptible to contamination is the Sheahan well field, which is five miles away and downgradient of Shelby Farms.* *See page 54 of the SFEIS. Minimal clearing of trees and vegetation cover within the floodplains and zero-bank clearing at streams would reduce floodplain and water quality impacts. Every action will be executed to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains.* *The project will not result in a significant increase in flooding in the Wolf River floodplain. The guidelines of the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (42 USC 50) will be met. The project will also be consistent with requirements of floodplain management guidelines for implementing Executive Order 11988 and Federal Highway Administration (FHWA) guidelines in 23 CFR 650A. Any hydraulic structures will be sized according to TDOT's policies in the TDOT Drainage Manual (http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm) or the TDOT Design Procedures for Hydraulic Structures (http://www.tdot.state.tn.us/chief_engineer/assistant_engineer_design/structures/thmall.pdf) during the design phase of the project. Structures will be sized to pass the appropriate flood flows in a riverine environment, and the floodplain connection will be maintained with three box culverts for flow equalization purposes. Water surface elevations are specified in hundredths of a foot, so an accurate numerical estimation cannot be provided until the hydraulic design is complete.* *See page 79 of the SFEIS. The Shelby Farms Parkway Advisory Team (SFPAT) on January 11, 2006, wanted to have the proposed parkway as far west as possible to avoid any impacts to the park area. In addition, this alternative avoids impacts to the potential breach of the aquifer. The preliminary design of the interchange at Walnut Grove Road includes the construction of detention ponds within the interchange, which will slow the conveyance of stormwater from the road. The stormwater runoff should not affect the aquifer because the water will be forced to flow past the area of concern and into the Wolf River.*
Dennis Lynch dmlynch@gmail.com	Mr. Lynch originally asked if the SFEIS was available online, to which Joe Matlock of TDOT responded with a link to the project's web site. Mr. Lynch e-mailed again. *Joe Matlock of TDOT sent an e-mail link to Mr. Lynch on 3/27/12*

Dennis Lynch dmlynch@gmail.com	His specific questions: What are the forecasted traffic flows for the Kirby Parkway? *As shown in Attachment D of this document, the forecasted daily trips for the proposed Parkway from the 2005 forecasts used by the SFPAT ranged from 32,700 average daily traffic (ADT) near Walnut Grove Road to 13,600 ADT near Macon Road in the design year 2026. The 2012 forecasts developed for use in final design for the project increase to 37,400 ADT near Walnut Grove and to 24,400 ADT near Macon Rd in the updated design year 2040. See Attachment M for updated 2012 forecasts.* What is the trip-type distribution (HBW, HBSchool, HBShop, etc.)? *The trip distribution was based on the Memphis MPO model, which uses productions and attractions including Home Base Work (HBW), Home Base Other (HBO), and Non-Home Base (NHB). This data was not modified and was used to develop the passenger car equivalents. This data is available through the Memphis MPO. Their Web site is www.memphismpo.org, and the point of contact is Pragati Srivastava, Administrator, at (901) 576-7190.* What is the time of day distribution? *The model-generated daily trips and existing counts were used to factor the hourly volumes and north-south directional percentages. The existing AM and PM counts were the basis for developing the peak hour turns. The AM peak was generally a 52/48 split and the PM Peak was generally a 45/55 split with the daily trip being a 50/50 split.* What are the primary O-D pairs of the projected trips over the Parkway? *For the record, Origin-Destination (O-D) studies are done to determine the number of vehicles traveling to and from different zones, or pairs, within a transportation network.* *A select link analysis was performed utilizing both the sub-area model developed for the original project forecasts and the current MPO travel demand model. All of the projects in the TIP and LRTP were included in the select link analysis. The top ten O-D pairs with the highest traffic volumes using the proposed parkway are tabulated in Section 2.2 of the Summary Report (Attachment R of this document). Because the travel demand model has more than 1,200 Traffic Analysis Zones (TAZs), the trip patterns were also examined at*

Dennis Lynch dmlynch@gmail.com	*an aggregate level, in the form of 14 super districts identified within the region. The results from this analysis are presented in Section 2.3 of the Summary Report.* *To address the potential differences between the current MPO model and the sub-area model developed for the project in 2005, a second select link analysis was performed using the 2005 sub-area model; those results are presented in Section 3.0 of the Summary Report. While the volumes were different between the models, the results indicate that the highest numbers of trips using the Parkway are between TAZs adjacent to the Parkway. A direct comparison of trips between TAZs of the two separate models could not be done, as the TAZs of each model are different sizes.* What are the volumes of trips on those O-D pairs? *The volumes of the O-D pairs are identified in the Summary Report (Attachment R of this document) as discussed in the above response.* What alternative routes are there for those trips? *Vehicles can use the existing roadways such as Farm Road, Germantown Rd, Whitten Rd, I-240, and Sycamore View as alternative North-South routes. Further data is available through the Memphis MPO. Their Web site is www.memphismpo.org, and the point of contact is Pragati Srivastava, Administrator, at (901) 576-7190.* What is the source survey for the travel data? *See the two PowerPoint presentations shown to the SFPAT in April and August 2005, located in Attachment K. These PowerPoint presentations describe the process of developing traffic forecasts using the Memphis MPO model and the results of those forecasts. The SFPAT used the data to select design criteria such as number of lanes, design speed, and intersection/interchange types. The volumes were developed using the Memphis MPO TransCAD model and travel time data and vehicle turning movement counts were gathered in the field. The Memphis MPO Model was refined in the study area to replicate the existing volumes and provide a calibrated model for the future year projections. The turning movement counts were gathered over a 12-hour period and used to refine the model output. Travel time data was gathered by the Project Team for calibration of the microsimulation during the AM and PM peak hours. Further data is available through the Memphis MPO. Their Web site is www.memphismpo.org, and the point of contact is Pragati*

Dennis Lynch dmlynch@gmail.com	*Srivastava, Administrator, at (901) 576-7190. The Memphis MPO model is described in Chapter 9 and Appendix G of the LRTP (see Attachment L of this document).* How was it factored up for the study time period? *Based on socioeconomic and employment data for Memphis, the Memphis MPO TransCAD model projected future year traffic volumes for each leg. The growth varied for each leg. The existing hourly and daily traffic volumes were used as the basis for factoring the daily model output. The existing directional distribution was determined based on the existing counts and historical trends in the Shelby Farms study area. The volumes were adjusted to provide for a balanced network. Updated traffic forecasts to be used in final design were developed in 2012 and are included in Attachment M. Further data is available through the Memphis MPO. Their Web site is www.memphismpo.org, and the point of contact is Pragati Srivastava, Administrator, at (901) 576-7190. The Memphis MPO model is described in Chapter 9 and Appendix G of the LRTP (see Attachment L of this document).* Can I have access to that data? *Please see the traffic data developed for the 2005 SFPAT Meetings in Attachment D and updated forecasts for final design in Attachment M. Further data is available through the Memphis MPO. Their Web site is www.memphismpo.org, and the point of contact is Pragati Srivastava, Administrator, at (901) 576-7190. The Memphis MPO model is described in Chapter 9 and Appendix G of the LRTP (see Attachment L of this document).* Is it available to the public? *Traffic simulations were shown at the 2007 Public Hearing. Please see the traffic data developed for the 2005 SFPAT Meetings in Attachment D and updated forecasts for final design in Attachment M. Further data is available through the Memphis MPO. Their Web site is www.memphismpo.org, and the point of contact is Pragati Srivastava, Administrator, at (901) 576-7190. The Memphis MPO model is described in Chapter 9 and Appendix G of the LRTP (see Attachment L of this document).* Do the models which forecast the traffic flows over Kirby Parkway take into consideration some or all of the planned and proposed roads east of Shelby Farms, plus upgrades to I-40 & I-240?

Dennis Lynch dmlynch@gmail.com	*The Memphis MPO Model includes improvements to the roads surrounding the park, including the improvement at I-40 and I-240. The model is based on the Long Range Transportation Plan (LRTP) that the MPO developed and approved. The current LRTP is included in Attachment L and can be viewed on the Memphis Urban Area's Web site:* http://memphismpo.org/index.php?option=com_content&view=article&id=116&Itemid=413. *Both the 2005 and 2012 traffic forecasts are based on the approved model at that time, which includes the proposed projects in the LRTP.* Which roads are included and which are not? *The model includes the major roadways in the Shelby Farms area. Those included in the study area were Farm Road, Mullins Station Road, Sycamore View Road, Macon Road, Whitten Road, Raleigh-Lagrange Road, Appling Road, Germantown Road, and Century-Centre Parkway. Roads into neighborhoods were not included.* In a subsequent e-mail, Mr. Lynch again asked to review the traffic forecasts. *Please see the traffic data developed for the 2005 SFPAT Meetings in Attachment D and updated forecasts for final design in Attachment M.*
Art Wolff bertwolff@aol.com	Mr. Wolff originally e-mailed Jason Baker of TDOT. Mr. Baker copied Joe Matlock of TDOT in his response. In addition, Mr. Wolff emailed his original Public Hearing summary with certain passages underlined and a note mentioning the omission of any reference to an aquifer. His specific comments/questions: Would you please give me an updated status of the project? Would you please provide me with a copy of the Final Environmental Document? *(Palmer Engineering mailed Mr. Wolff a copy on February 27, 2012.)* Would you please provide me with contact information for the proper division of the FHWA so that I might contact them? Mr. Wolff feels the traffic counts are misleading and inaccurate. Mr. Wolff sent an e-mail to Mr. Baker on January 16, 2012. Mr. Wolff said he had not received a response. In the e-mail, Mr. Wolff asked Mr. Baker to comment on all the potential environmental dangers (potential disasters) in placing this roadway in this location, particularly to drinking water. Mr. Wolff asked if he could help in the investigation of an alternative location. *Please see pages 69-73 of the SFEIS (Attachment A of this document). With the application of the aforementioned commitments and other mitigation measures, it is not expected that the construction or*

Art Wolff bertwolff@aol.com	*maintenance and operations of Kirby Parkway through Shelby Farms will negatively impact the Memphis aquifer or its water quality. According to Dr. Jerry Anderson of the Groundwater Institute, reports have indicated that the groundwater supply most susceptible to contamination is the Sheahan well field, which is five miles away and downgradient of Shelby Farms.* *Minimal clearing of trees and vegetation cover within the floodplains and zero-bank clearing at streams would reduce floodplain and water quality impacts. Floodplain encroachment was avoided largely by designing the roadway as far away from the floodplain as possible while steering clear of the Shelby Farms recreational facilities located to the east; floodplain risk was minimized by designing the roadway at a higher elevation than ground-level (while maintaining at-grade). However, the new roadway location will increase the storm event runoff (creating impervious surfaces and loss of forested areas). Increased flow during storm events must be partially stored on the floodplains to prevent excessive damage to downstream, areas that may result in erosion, substrate scouring and aquatic habitat alterations. Since the Selected Alternative is designed for at-grade construction through Shelby Farms, direct floodplain impacts (short- and long-term) may be greatly reduced by implementing drainage structures, where possible. The project will be completed in accordance with Executive Order 11988. Minimizing impacts to the Wolf River floodplain would be of particular importance to protect the natural area and the aquatic fauna. The Shelby County Forest Management Plan does not include the proposed construction of Kirby Parkway. Minimal clearing of trees and vegetation cover within the floodplains and zero-bank clearing at streams would reduce floodplain and water quality impacts.* *The project will not result in a significant increase in flooding in the Wolf River floodplain. The guidelines of FEMA's National Flood Insurance Program (42 USC 50) will be met. They will also be consistent with requirements of floodplain management guidelines for implementing Executive Order 11988 and FHWA guidelines in 23 CFR 650A. Any hydraulic structures will be sized according to TDOT's policies in the TDOT Drainage Manual (http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm) or the TDOT Design Procedures for Hydraulic Structures (http://www.tdot.state.tn.us/chief_engineer/assistant_engineer_design/structures/thmall.pdf) during the design phase of the project. Structures will be sized to pass the appropriate flood flows in a riverine environment, and the floodplain connection will be maintained with three box culverts for flow equalization purposes. Water surface elevations are specified in hundredths of a foot, so an accurate numerical estimation cannot be provided until the hydraulic design is complete.*

Art Wolff bertwolff@aol.com	*The traffic modeling was based on the 2004 Memphis MPO model and is located in Attachment D. An updated forecast prepared in 2012 for final design is located in Attachment M. Joe Matlock of TDOT sent an e-mail link for the SFEIS document to Mr. Wolff on 3/27/12. Mr. Baker of TDOT responded to Mr. Wolff identifying the FHWA contact. Mr. Baker said that the document addresses a wide range of factors, such as alternatives, environmental consequences, traffic, etc. All of these items were included in this document for review and approval. The National Environmental Policy Act (NEPA) process, and associated SFPAT, is the method used to provide an objective, scientific, thorough, and transparent study of this project.*
Cort Percer Peddler Bike Shop 575 South Highland Memphis, TN 38111 cort@peddlerbikeshop.com	How does the completed Shelby Farms Greenline fit into the plan for the proposed extension of Kirby Parkway through Shelby Farms Park? How does the "to be paved" Eastern portion of the Shelby Farms Greenline? *An at-grade intersection with signal protected crosswalks will be constructed initially at Mullins Station Road. Ultimately, provisions for a grade-separated crossing for the Greenline over the Parkway will be constructed. Since final design of the Parkway can't proceed until the Record of Decision (ROD) is completed, specific details of non-vehicular crossings have not been developed. As details are developed, they will be coordinated with the SFPAT.*
Shelby Farms Park Conservancy (SFPC) Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	1. Does the Kirby Parkway between Mullins Station Road and Macon Road provide provisions for bike lanes and bike paths? *See Attachment B of this document for the April 13, 2011 PowerPoint presentation. The segment of the Parkway from Mullins Station to Macon Road includes four-foot bicycle lanes inside the curb and gutter. There will also be a five-foot sidewalk behind the curb and gutter for pedestrians. This sidewalk has been offset an additional six feet from the curb line to create an eight-foot buffer from the road for pedestrians. The typical section in the SFEIS shows an outdated exhibit. Changes will be made in the ROD reflecting the revised typical as shown in the April 13, 2011 PowerPoint presentation.* *TDOT showed conceptual drawings to the SFPAT on April 11, 2011 depicting the existing and proposed paths in the area of the roadway project; these drawings are included in the Appendix B PowerPoint.* 2. Traditional traffic calming measures include reduction in width of traffic lanes. As this parkway is intended to be context-sensitive, could traffic lane width within Shelby Farms Park be reduced from 12 feet to 11 feet? *The SFPAT agreed to the recommendations for 12-foot lanes. The curvature in the roadway is included for*

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*traffic calming; however, 12-foot lanes are considered prudent for safety reasons.* 3. What does the proposed intersection of Kirby Parkway and Mullins Station Road look like and how will it function for bike and pedestrian traffic? Provide rendering. *Bicycle and pedestrian traffic at the intersection will cross Mullins Station at-grade in crosswalks. Further design will continue and the design consultant will provide renderings of the details of bicycle and pedestrian crossings at this intersection at the NEPA Public Hearing in the fall of 2013.* 4. What does the proposed intersection of Kirby Parkway and Park entrance at Sycamore View Road look like and how will it function for vehicular, bike, and pedestrian traffic? Provide rendering. *See Attachment B for the April 13, 2011 Meeting with the SFPC and the SFPAT. Bicycle and pedestrian traffic will cross the Sycamore View Road extension at-grade when that separate project has been constructed. Bicycle and pedestrian traffic crossing the Parkway will be able to either cross at-grade at the signalized intersection or pass through a tunnel to the south or the tunnel to the north near Mullins Station and use other paths provided. Following completion of the ROD, final design will commence and the design consultant will provide renderings of the details of bicycle and pedestrian crossings and vehicle turning lanes at this intersection.* 5. Shelby Farms Park has been the recipient of three Land and Water Conservation Fund Grants (see attached). This appears to suggest 6(f) impacts that have not been addressed in the SFEIS. *We have identified two areas covered by Section 6(f)(3) of the Land and Water Conservation Fund Act (L&WCF)(16 U.S.C. § 460l-4, et. seq. & 36 CFR Part 59): The Wolf River Greenway Connector Trail which connects to Shelby Farms by crossing Walnut Grove Road and the approximately 100 acres surrounding the arboretum in the northwest section of Shelby Farms. The Tennessee Department of Environment and Conservation, Recreation Educational Services Division (TDEC-RES) has confirmed that these are the only two projects within Shelby Farms that are impacted by Section 6(f)(3). The project would not cross the 100 acres associated with the arboretum, and TDEC-RES has confirmed that there is no conversion of land protected by Section 6(f)(3) to other than public outdoor recreation uses. TDEC-RES has also affirmed that there would not be a conversion of the Wolf River Greenway Connector Trail either, because continuity of the trail would be maintained and the new tunnel would enhance safety for trail users.*

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*The Notice of Limitation of Use for the Wolf River Greenway Connector Trail and the Land and Water Conservation Fund (LWCF) grant agreement for the arboretum are located in Attachment S to this comment disposition document. Copies of the agreements can be obtained by contacting Robert Richards, Tennessee Greenways and Trails Coordinator at TDEC-RES, at Robert.richards@tn.gov.* 6. Trails funded through the Transportation Enhancement (TE) grant have been adjusted to accommodate the delay in constructing Kirby Parkway. Confirm that the trails listed as being funded through TE are correct and that they can be constructed in advance of the Parkway construction in order to fall within the grant construction deadlines. *See Appendix A in the SFEIS (Attachment A of this document) for the March 27, 2009 TE grant. As final design commences, TDOT will coordinate with the SFPC and the SFPAT to ensure that any trails constructed prior to the Parkway construction are compatible with the ultimate Parkway construction. TE funds for these trails must be obligated for construction by August 31, 2013 and construction of the trails must be completed no later than August 31, 2015.* 7. What is the population change in Shelby County since 2000 and how might lower population projections affect traffic projections in horizon year 2030? *Population has increased in the region. The total population in 2000 was 897,472 and increased by 3.4% to 927,644 in 2010, according to US Census data. Upward projection for future years is expected according to the historic trends.* *Changes in population have made some difference in traffic projections for the Parkway (see Attachment D for 2005 forecasts with a design year of 2026 and Attachment M for updated 2012 forecasts with a design year of 2040). Measures of Effectiveness used by the SFPAT to provide recommendations were updated for the new 2012 forecasts. Attachment N shows a comparison of traffic analysis done during the CSS process using the 2005 forecasts (2026 design year) as compared to revised analysis using updated 2012 forecasts (2040 design year). Alternatives L and Q are scenarios with a trumpet interchange as ultimately recommended. Alternatives M and R utilized a two-phase signalized intersection with a fly-over ramp provided for eastbound to northbound movements.* *Synchro traffic simulations were prepared and travel times were compared for both northbound and southbound movements between Humphreys Blvd and Macon Road. The nodes are Humphreys Boulevard*

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*(1), Walnut Grove Road Interchange (2), Sycamore View Road/Park Entrance (3), Mullins Station Road (4), and Macon Road (5).* 8. How will visual impact of trumpet-shaped, grade-separated interchange at Walnut Grove Road and Kirby Parkway be mitigated? What is the design of the interchange and how do design and materials relate to the Shelby Farms Park Master Plan design standards? Provide current rendering of this intersection. *Conceptual designs were shown in the April 13, 2011 meeting. No specific design has been developed for bridge elements or any entrance feature to the park. The city is committed to mitigating impacts to the park through landscaping. When the ROD has been completed and final design is authorized, TDOT and the design consultant will coordinate with the SFPC on implementation of and compatibility with Master Plan concepts in final design. See attached PowerPoint in Attachment B.* 9. How will the project "create the opportunity for vehicular and non-vehicular crossing of the corridor including access for the physically challenged" (page 13)? *Vehicular traffic will be able to cross the corridor on Walnut Grove Road through an interchange, on Sycamore View Road through an at-grade signalized intersection, on Mullins Station Road through an at-grade signalized intersection, and on Macon Road through an at-grade intersection. In addition, side streets along Whitten Road will be reconnected to allow for vehicular crossing from one side to the other at non-signalized intersections.* *Non-vehicular crossing (including for the physically challenged) will occur both through the tunnels located between Walnut Grove and the Sycamore View Road Extension East and the Sycamore View Road Extension East and Mullins Station Road. Signalized at-grade intersections at the Sycamore View Road Extension, Mullins Station Road, and Macon Road will also provide opportunities for non-vehicular traffic (including the physically challenged) to cross during protected phases. The details regarding the use of countdown crosswalk signals will be developed in final design. All designs will be American Disabilities Act (ADA)-compliant.* 10. How is bike/pedestrian access to the Shelby Farms Greenline provided? *Access for the Greenline will be through a tunnel near Farm Road. Access across Mullins Station Road will be*

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*at-grade controlled by a signal. As final design progresses, details will be developed and coordinated through the SFPAT.* 11. How will the current BMX tract be impacted by the parkway during and after construction? *See page 62 of the SFEIS in Attachment A. The BMX track will not be impacted by the construction project; however, a new access to the track must be constructed. The new access will be provided from Walnut Grove Road east of Farm Road.* 12. Page 39. Emergency Call Center no longer planned for this location. Humane Society has been open since 2007. *These statements are correct, but do not change any of the reasoning for identifying the Selected Alternative or the proposed Section 4(f)* de minimis *analysis.* 13. As agreed by the Shelby Farms Parkway Advisory Committee, tractor-trailers should not be permitted on Kirby Parkway. The passage of tractor-trailers through Shelby Farms Park could fundamentally alter the park-sensitive character of the parkway and negatively impact the park from visual, noise, and air perspectives. *On page 76 of the SFEIS (Attachment A of this document), according to 23 CFR 658.19(a), reasonable access between National Network routes (such as nearby I-240, I-40, and US 79) and points of loading and unloading to household goods carriers, motor carriers of passengers, and other covered truck tractor/semitrailer combinations is required; therefore, since non-motorized traffic and tractor-trailer traffic will be separated in the proposed parkway, thereby making the road safer for all users, tractor-trailer traffic cannot be prohibited from using the parkway because the state cannot deny reasonable access to tractor-trailers (23 CFR 658.19(h)(ii)).* *The SFPAT made a recommendation for a lower design speed and signalized intersections for the Parkway in part to discourage cut-through truck traffic from I-40 and I-240. Vehicle Classification counts indicated that the combined medium and heavy truck traffic on Farm Road, Walnut Grove Road, and Mullins Station Road comprised less than 2% of traffic in the project area with several areas having fewer than 1% trucks. The recommended design concept, coupled with proposed improvements to the I-40/I-240 interchange, is expected to result in similar low truck percentages on the Parkway.*

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	14. Chickasaw Lake and Frisbee Golf course are mistakenly shown as rangeland on Figure 2.7. *Chickasaw Lake is shown as recreational in Figure 2.7. The Frisbee Golf Course is not shown in Figure 2.7. An updated land use map, which includes the Frisbee Golf Course, is located in Attachment Q of this document and will be included in the ROD. The Frisbee Golf Course is east of Chickasaw Lake and will not be impacted by the proposed Parkway.* 15. How will flooding in the area from major storms be prevented? *The guidelines of FEMA's National Flood Insurance Program (42 USC 50) will be met. They will also be consistent with requirements of floodplain management guidelines for implementing Executive Order 11988 and FHWA guidelines in 23 CFR 650A. Any hydraulic structures will be sized according to TDOT's policies in the TDOT Drainage Manual (http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm) or the TDOT Design Procedures for Hydraulic Structures (http://www.tdot.state.tn.us/chief_engineer/assistant_engineer_design/structures/thmall.pdf) during the design phase of the project. Structures will be sized to pass the appropriate flood flows in a riverine environment, and the floodplain connection will be maintained with three box culverts for flow equalization purposes. Water surface elevations are specified in hundredths of a foot, so an accurate numerical estimation cannot be provided until the hydraulic design is complete.* *Please see the disposition to Art Wolff on pages 6 – 7 of this document for further information about flooding.* 16. Provisions for a wildlife crossing of the Parkway should be provided as part of project. *There are no specific provisions for a wildlife crossing, although the proposed tunnels under the Parkway trail may potentially be used as a wildlife crossing. Although no professional studies were conducted, wildlife migration has not been observed in Shelby Farms to warrant specific wildlife crossings. In addition, the areas where tunnels will be crossing are used for agriculture, not grazing activities.* 17. Please provide design detail of parkway, park intersections, park entrances, and funded trails, bridges, and tunnels so that SFPC can assess impact of road to access of recreational areas of park.

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*Measures to minimize impacts to any Section 4(f) resources were considered throughout project development, even though it has appeared no direct use of Section 4(f) resources would be required. The foremost example is the relocation of the 1,000-foot corridor for the build alternative. The currently proposed site is located approximately 2,700 feet west of a previously planned corridor for this project. This shift in alignment moves the path closer to the county government buildings in Area 10 and farther away from designated recreational areas to the east, including Chickasaw Lake, Mayor Lake, the visitor's center, Plough Park, the Arboretum, a kite flying area, and the soccer fields. The shift in design puts approximately 1,000 feet of agricultural fields and grazing land between the project and many of these designated recreational areas in the northeastern portion of Shelby Farms Park.* *The current design of the proposed Kirby Parkway adopts numerous recommendations from the SFPAT, which effectively constitute measures to minimize any impacts the project would have on the features in Shelby Farms Park that qualify for protection under Section 4(f). A few of the more prominent minimizing design features include:* • *4 lanes (previous project plans had contemplated 6 lanes);* • *40 mile-per-hour (mph) design speed (previous project plans had contemplate a design speed of 60 mph);* • *A curvilinear alignment (previous corridors had contemplated a straighter north-south pathway);* • *A trumpet interchange configuration where the project joins with Walnut Grove Road, which allows for free-flowing traffic for all movements through the interchange.* *In addition, consistent with recommendations from the SFPAT and the Shelby Farms Master Plan, the current design plan for the build alternative is intended to be complemented by bicycle, pedestrian, and equine trails that will provide safe, easy, and convenient connectivity within the park. In fact, the project study area was amended to incorporate these facilities within its boundaries. On August 25, 2010, Tennessee Governor Phil Bredesen and TDOT Commissioner Gerald Nicely announced that Shelby County received $1,640,675 in federal TE funds for the Shelby Farms Bicycle, Pedestrian, and Equine Trails. Proposed trail segments "A," "B," "C," and "H" will be constructed as a part of the Kirby Parkway project through Shelby Farms. Segments "D," "F," "G," and "I" will be constructed when funding for the proposed Shelby Farms Bicycle, Pedestrian, and Equine Trails TE project is fulfilled. Additional trail segments "X" and "Y" will be constructed in conjunction with the expansion of Patriot Lake. Segments "J" and "K" have no funding in place at this time. See Attachment A for the TE application and Shelby Farms Park Master Plan.*

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*Finally, the current pathway for Alternative Q acquires less land than contemplated in earlier plans. The original 1,000-foot corridor consisted of 282.63 acres. The total right-of-way for the project as currently contemplated consists of 116.99 acres – a reduction of 165.64 acres. As a result, the project would use approximately 58% less acreage than originally provided. Of the 116.99 acres to be used, 101.1 acres fall outside the original 1,000-foot corridor, and 15.89 acres are within the original corridor; however, much of the new alignment passes through or along Area 10, which is occupied by county government buildings not devoted to recreational activities. See Figure 9. The net result is fewer acres to Kirby Parkway than were planned prior to establishment of the conservation easement for Shelby Farms Park.* *Also see Attachment B for April 13, 2011 PowerPoint. Once the ROD has been completed, TDOT and the design consultant will begin final design and will meet with the SFPAT to coordinate details of that design as it progresses.* 18. SFPC is a major business operating within the project corridor. *The SFEIS, Section IV.G., Community, states that "Currently, no major established businesses exist in the project corridor." Section IV.G. considers the effects of the new roadway on for-profit businesses with a physical presence in the project area. The SFPC is considered a "non-profit" organization rather than a "business" for purposes of the SFEIS.* 19. If vehicular and/or pedestrian access across Walnut Grove Road, at or near Farm Road, is severed, recreational resources will be greatly diminished. *A new multi-use trail (Wolf River Greenway Trail Connector) has been constructed crossing Walnut Grove Road since the submission of the SFEIS. Final design will explore vehicular and non-vehicular connections at this location. The design team will maintain this trail connection through the addition of an underpass non-vehicular structure under Walnut Grove Road. Details of the crossing type and materials will be coordinated with the SFPAT as final design progresses.* 20. If the parkway trail system is not fully funded, the parkway will diminish connectivity and continuity of the current bike and pedestrian facilities, including the river trails, connector trails, Wolf River Pedestrian Bridge, Shelby Farms Greenline, Chickasaw Trail, Patriot Lake Trail, Tour de Wolf Trails, and other recreational amenities.

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*See the March 27, 2009 TE Grant in Appendix A of the SFEIS. TDOT has committed to constructing certain trails with the Parkway and other trails required to maintain connectivity to the existing trails. As shown in Attachment B (April 13, 2011 PowerPoint presentation to SFPAT), the north/south trail (previously known as Segments B and C in Figure 4.4 in the SFEIS) along the Parkway has been revised in order to better connect to recreational resources east of the proposed Parkway. Coordination for maintaining connectivity will continue to occur throughout final design with the SFPAT and the SFPC.* 21. The 2008 Shelby Farms Master Plan report was illustrative. Plan is currently at 50% Construction Document stage. How does road design tie to Park design? *When the ROD has been completed and final design is authorized, TDOT and the design consultant will coordinate with the SFPC on implementation of and compatibility with Master Plan concepts in final design. The proposed road has not moved from the original location as presented in the Master Plan. See Attachment J for Preliminary Plans. In addition, a new access will be provided to the BMX track. This new access is not specifically shown in the Master Plan.* 22. The Walnut Grove Road Improvement Project includes a multiuse path on the north ramp of the Wolf River vehicular bridge. The path connects to the Wolf River Greenway and neighborhoods and businesses to the west of the park; however, the path terminates suddenly just east of the bridge. This path should be connected to the Parkway trails as part of the Kirby Parkway project. *See the March 27, 2009 TE Grant in Appendix A of the SFEIS. Segment A will be constructed as part of the project to connect to the bridge path and will also tie to the Wolf River Trail. As shown in Attachment B (April 13, 2011 PowerPoint presentation to SFPAT), the north/south trail (previously known as Segments B and C in Figure 4.4 in the SFEIS) along the Parkway has been revised in order to better connect to recreational resources east of the proposed Parkway. Coordination for maintaining connectivity will continue to occur throughout final design with the SFPAT and the SFPC.* 23. The trail referred to as Greater Memphis Greenline is named the Shelby Farms Greenline. The multi-use trail is managed by Shelby Farms Park Conservancy. *Noted and will be corrected in the ROD.*

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	24. Much of 23 acres of farmland impacted by the road corridor is under management of SFPC. *Most of the new Shelby Farms Parkway is aligned along the boundary between the SFPC-managed area and Area 10, which is reserved for the use of Shelby County Government. The farmland impacted is managed by both the SFPC and Shelby County.* 25. "All drainage from the proposed road will be discharged as far downstream on the Wolf River as financially feasible." Who is financially responsible and what is considered feasible? *Funding for the project is provided by the city of Memphis and FHWA. FHWA and the city of Memphis will work with their design consultant to determine how far downstream runoff can be discharged in an economically practical way. In addition, the runoff will be discharged as far downstream as required by TDOT regulations and all other applicable guidance. Guidelines in TDOT's Drainage Manual are used for all design projects in Tennessee (*http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm*). Standard practice is to connect drainage outfalls with the same channels they are currently using as much as is practical. All drainage outfalls on this project will reach their current outfall channels before reaching the Wolf River. No construction work will impact the banks of the Wolf River on this project.* 26. Shelby Farms is a Park that includes mixed uses. *Shelby Farms is a mixed-use area, of which, SFPC operates a park within a designated management area.* 27. Please share landscape plan for Kirby Parkway. *See Attachment B for the April 13, 2011 PowerPoint presentation for the meeting with the SFPAT and the Green Sheets in the SFEIS located in Attachment A. The landscaping renderings presented at the April 13, 2011 meeting were conceptual; however, these renderings include many of the ideals expressed in the Shelby Farms Park Master Plan.* 28. The placement of utilities underground should be included as part of the Kirby Parkway project. *Utility relocation plans have not been developed in the preliminary stages of the project. Although utilities are not anticipated for the Shelby Farms Parkway, any utilities between the interchange and Mullins Station*

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*Road that are required during final design will be placed underground. This commitment will be added in the ROD.* 29. What is the lighting plan for Kirby Parkway? Please provide. *Lighting plans for the project have not been developed in the preliminary stages of the project. No street lighting will be provided for the Parkway between the interchange and the Greenway near Mullins Station Road. In addition, lighting will be provided in the tunnels for safety reasons.* 30. Please provide a copy of the April 26, 2006 letter referred to in this section. *The letter is attached to this document as Attachment E.* 31. The following is taken from the Shelby Farms Park Advisory Team Recommendations, the SFPAT: "recognizes that connectivity, access, and aesthetic characteristics of the Shelby Farms Parkway must be consistent with the Master Plan for Shelby Farms and has thus deferred development of recommendations to the Shelby Farms Master Plan. More specific issues that should be considered in the development of the Master Plan include the following (not all listed): • Provisions for a "signature" entrance or entrances for Shelby Farms Park, including the Bridge over Walnut Grove. • Provisions for safe, easy, and convenient connectivity and non-vehicular access to Shelby Farms from surrounding residential areas and greenways on all sides of Shelby Farms • Provisions for safe, easy, and convenient connectivity within the park for pedestrians, bicycles, and horses • Coordination and accommodation for rails to trails and/or future light rail in the vicinity of Mullins Station "The team also recommends that authorities from Shelby County, the City of Memphis, and TDOT provide adequate funding for the connectivity, access, and aesthetic features." There has not been adequate communication and coordination with the SFPC on the Shelby Farms Master Plan. *The city of Memphis and TDOT cannot proceed with final design until a ROD has been completed. There will be further coordination with the SFPC during the* de minimis *meeting that will occur prior to issuing the ROD. There will be coordination with the SFPC through the SFPAT throughout final design once the ROD has been*

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*completed. The City and TDOT met with the SFPAT on April 13, 2011 (see Attachment B) to go over conceptual plans; in addition, there will be a future meeting once final plans have been further developed.* 32. De minimis. Currently, SFPC cannot agree that adequate planning has occurred to minimize harm to the Shelby Farms Park property, nor to proximity impacts. *TDOT and the SFPC are working together now to ensure adequate planning. If FHWA determines it cannot approve the proposed* de minimis *finding, the project will require a Section 4(f) analysis.* 33. Walnut Grove Road and Farm Road are the only connector roads through Shelby Farms Park. There is currently a red light and pedestrian crossing at Farm Road and Walnut Grove Road. Any other roads through Shelby Farms Park are internal Park roads servicing only Park visitor traffic. *Noted* Interruption of Access and Connectivity – SFPC is concerned about the way in which the proposed road will divide the Park and interrupt access to and connectivity within the Park, and SFPC believes this will have substantial and unnecessary adverse impacts on the Park, and is convinced the road can be designed and built in such a way that these adverse impacts will be avoided or substantially diminished. SFPC is particularly concerned about the proposed elimination of the existing crossing of Walnut Grove Road at the intersection of Farm Road and Walnut Grove Road and the removal of the existing traffic light at that intersection. This will severely limit or completely obstruct vehicular, pedestrian, bicycle, and equestrian access between the portions of the Park north and south of Walnut Grove Road and to the Wolf River Greenway. The elimination of this crossing would additionally obstruct vehicular traffic from entering the Park by prohibiting left turns from eastbound Walnut Grove Road onto northbound Farm Road and from southbound Farm Road onto eastbound Walnut Grove Road. These turning movements are required. The SFPC is a major business operating within the project corridor and customer demand warrants a major entrance at this location. The SFPC also believes that the Parkway, as presently proposed, may unnecessarily limit access between portions of the Park lying west of the Parkway and those lying east thereof, and that this will have further, substantial adverse impacts on the Park, impacts which could be avoided or substantially diminished by improvements in the plan. In current design documents the Park entrance off of the Parkway appears to end 1,741’ prior to Farm Road and the intersection does not appear to be signalized. In addition, vehicular and pedestrian access to the Park resources to the west of the proposed Parkway does not appear to be addressed in design and must be provided. This includes access to

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	Park trails, community garden, tree nursery and vegetable gardens, and maintenance barn. *Currently, Shelby Farms is divided into northern and southern sections by Walnut Grove Road. Construction of the parkway will further divide the park into a large eastern section, which contains the majority of the recreational resources, and a much smaller western section, much of which is being used as agricultural land. Moving the project as far west as possible was recommended by the SFPAT, as shown in the SFEIS. The widening of Walnut Grove Road to six lanes, the elimination of the traffic signal at Walnut Grove Road and Farm Road, and the modification of Farm Road to be a right in/right out intersection will improve traffic flow significantly along Walnut Grove Road, and is expected to reduce the number of accidents that currently occur at this intersection. The right in/right out intersection was shown on all of the CSS drawings and was recommended by the SFPAT. The new main entrance to the park will be from the new Farm Road intersection located approximately 3,600' north of Walnut Grove Road. The Sycamore View Road extension to the west of this intersection is not likely to be funded. TDOT will remove any references to the Sycamore View Road extension in the ROD.* *Subsequent to the submission of the SFEIS, a new multi-use trail (Wolf River Greenway Trail Connector) has been constructed crossing Walnut Grove Road. This trail connection is proposed to be maintained through the addition of a non-vehicular underpass structure under Walnut Grove Road. Preliminary studies will be undertaken to determine the feasibility of constructing the underpass. Details of the crossing type and materials will be coordinated with the SFPAT as final design progresses. Both vehicular and non-vehicular movements will be studied in greater detail during the final design phase of the project.* *Connectivity between the western and eastern section of Shelby Farms will be maintained with the inclusion of two tunnels beneath the proposed parkway. One will be located south of Mullins Station Road at the existing Farm Road and a second will be located south of the park entrance. Non-motorized traffic will also be able to cross the parkway at-grade at the new signalized intersection of the parkway and Farm Road and at Mullins Station Road.* The pedestrian, bicycle, and equestrian trails, existing and planned, running through, around, and adjacent to the Park are among the most highly valued and essential assets of the Park. SFPC cannot agree that a road which interrupts or adversely affects those trails to a significant extent can be said to have a *de minimis* adverse impact on the Park. Trails that must be included as part of the Parkway project are as follows: 1. Bicycle/pedestrian trail parallel to southbound side of the Parkway from Mullins Station Road to

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	existing Farm Road. *See page 4 of Appendix A in the SFEIS (Attachment A of this document) for the FY 2009 TE Grant; it is also shown on pages 62 and 63 in the SFEIS. This will be included as part of the project as Segment C. As shown in the April 13, 2011 PowerPoint, Segments B and C were moved to the east side of the parkway to avoid potential crossing safety issues for pedestrians using those trails. Since nearly all of the recreational resources are on the east of the parkway, it is more consistent to locate the proposed trail on the east side. These changes to the trails will be addressed in the ROD.* 2. Bicycle/pedestrian trail crossing at the Parkway and Farm Road intersection. *A tunnel will be constructed for this crossing.* 3. Bicycle/pedestrian trail parallel to northbound side of the Parkway from existing Farm Road crossing to proposed Park Circle tunnel. *This was not included as a segment on the TE grant. A parallel route on the southbound side is available as Segment B. This segment was shifted to the northbound side between the Park Circle tunnel and Farm Road intersection. This segment was shown to the SFPAT in April 13, 2011 (see Attachment B).* 4. Bicycle/pedestrian trail crossing at the Parkway and Park Circle intersection. *See the PowerPoint from the April 13, 2011 meeting in Attachment B. A tunnel is provided under the Parkway for non-vehicular access and will be included in the project. Details of the tunnel will be coordinated with the SFPC during the design process through the SFPAT.* 5. Bicycle/pedestrian trails parallel to both the northbound and southbound sides of Parkway from the proposed Park Circle, running parallel to eastbound Walnut Grove Road, to connect to the trail terminus on the north ramp of the Walnut Grove Road bridge over the Wolf River and from the proposed Park Circle, running parallel to Walnut Grove Road, to Farm Road. *See the PowerPoint from the April 13, 2011 meeting in Attachment B. Proposed trail segments A, B, C, and H*

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*will be constructed as a part of the Kirby Parkway project through Shelby Farms. Segments D, F, G, and I will be constructed when funding for the proposed Shelby Farms Bicycle, Pedestrian, and Equine Trails TE project is fulfilled.* 6. The Parkway provides a 4' paved bike lane on each side of the road between Mullins Station Road and Macon Road; however, nothing else is shown on the plans to accommodate bicycles and pedestrians at this location, and it is not clear how the bike lane will transition to bicycle/pedestrian trails south of Mullins Station Road. *Handicap ramps will be provided on the north side of the Mullins Station Road intersection for bicyclists to exit the bike lanes onto the sidewalk. Bicyclists will then cross the signalized intersection during protected crosswalk phases. Additional details will be coordinated with the SFPAT during final design.* 7. One of the more important of the trails in question is the Shelby Farms Greenline, which has already been built from the Park westward to Tillman Street, and which is managed by the Park and is for all intents and purposes a part of the Park. An eastern extension of this trail into Cordova is imminent. It is essential that the Parkway be designed and built in a way that allows the Greenline to safely and efficiently traverse the Parkway, and it is SFPC's understanding that provision for this is not presently included in the plans for the Parkway. *Final design for the Parkway has not begun pending completion of the ROD. Final design will include an at-grade crosswalk crossing of the Parkway for users of the Greenline. Initially, an at-grade crossing will be constructed for the trail crossing but it will be compatible with a potential future grade-separated crossing.* Sycamore View Road Extension and Connection to the Parkway – SFPC has been advised that the Sycamore View Road Extension has been omitted from the SFEIS, and that its adverse impacts on the Park have not been considered by TDOT in determining whether Kirby Parkway has a *de minimis* adverse impact on the Park, on the ground that this is a "separate project." However, there seems to be no doubt that the construction of this Extension is fully intended. Note that the project is included in the Memphis Metropolitan Planning Organization (MPO) Memphis Urban Area Long Range Transportation Plan. SFPC submits that any rational analysis of the adverse impacts of the Parkway under consideration would have to include the combined impacts of the Sycamore View Extension and the rest of the proposed road. SFPC therefore questions this artificial "segmentation" of the two portions of what in reality constitute one project.

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*According to the Memphis City Engineer and Shelby County Engineer, they committed to removing the Sycamore View Road Extension from the LRTP in the fall of 2012; they intend to pursue formal action to remove the project at this point, as of May 2013. Furthermore, the Sycamore View Road Extension was not included in the new short-term Transportation Improvement Plan (TIP), which is currently under development. The ROD will not have any references to show any future phases of construction for the extension.* Tractor Trailer Traffic – SFPC considers tractor trailer traffic through the Park to be quite inconsistent with the purposes, for which the Park exists, and that such traffic will have severe, and avoidable, adverse impacts on the Park; and it had been SFPC understanding until recently that no tractor trailer trucks would be allowed on the Parkway. SFPC cannot agree that a Parkway permitting tractor trailer traffic incorporates all possible planning to minimize harm to the Park. *See page 76 of the SFEIS (Attachment A). According to 23 CFR 658.19(a), reasonable access between National Network routes (such as nearby I-240, 1-40, and US 79) and points of loading and unloading to household goods carriers, motor carriers of passengers, and other covered truck tractor/semitrailer combinations is required; therefore, since non-motorized traffic and tractor-trailer traffic will be separated in the proposed parkway, thereby making the road safer for all users, tractor-trailer traffic cannot be prohibited from using the parkway because the state cannot deny reasonable access to tractor-trailers (23 CFR 658.19(h)(ii)). In addition, truck percentage from the traffic forecasts is only 1-2%, which is low for this type of facility.* Flooding and Impacts upon Aquifer – SFPC is concerned about two additional possible impacts of the road on the Park, neither of which have been yet resolved: flooding in the Park and the impacts upon the Memphis Aquifer lying under the Park. *See pages 69-73 of the SFEIS in Attachment A. With the application of the aforementioned commitments and other mitigation measures, it is not expected that the construction or maintenance and operations of Kirby Parkway through Shelby Farms will negatively impact the Memphis aquifer or its water quality. According to Dr. Jerry Anderson of the Groundwater Institute, reports have indicated that the groundwater supply most susceptible to contamination is the Sheahan well field, which is five miles away and downgradient of Shelby Farms.*

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*See page 54 of the SFEIS. Minimal clearing of trees and vegetation cover within the floodplains and zero-bank clearing at streams would reduce floodplain and water quality impacts. Every action will be executed to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains.* *The project will not result in a significant increase in flooding in the Wolf River floodplain. The guidelines of FEMA's National Flood Insurance Program (42 USC 50) will be met. They will also be consistent with requirements of floodplain management guidelines for implementing Executive Order 11988 and FHWA's guidelines in 23 CFR 650A. Any hydraulic structures will be sized according to TDOT's policies in the TDOT Drainage Manual (http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm) or the TDOT Design Procedures for Hydraulic Structures (http://www.tdot.state.tn.us/chief_engineer/assistant_engineer_design/structures/thmall.pdf) during the design phase of the project. Structures will be sized to pass the appropriate flood flows in a riverine environment, and the floodplain connection will be maintained with three box culverts for flow equalization purposes. Water surface elevations are specified in hundredths of a foot, so an accurate numerical estimation cannot be provided until the hydraulic design is complete.* Section 6(f) Issues – SFPC is not satisfied that the provisions of Section 6(f) regarding land protected under the Federal Land and Water Conservation Program have been fully complied with and it is SFPC understanding that this is an essential part of any analysis of adverse impacts under Section 4(f). *We have identified two areas covered by Section 6(f)(3) of the Land and Water Conservation Fund Act (L&WCF)(16 U.S.C. § 460l-4, et. seq. & 36 CFR Part 59): The Wolf River Greenway Connector Trail which connects to Shelby Farms by crossing Walnut Grove Road and the approximately 100 acres surrounding the arboretum in the northwest section of Shelby Farms. The Tennessee Department of Environment and Conservation, Recreation Educational Services Division (TDEC-RES) has confirmed that these are the only two projects within Shelby Farms that are impacted by Section 6(f)(3). The project would not cross the 100 acres associated with the arboretum, and TDEC-RES has confirmed that there is no conversion of land protected by Section 6(f)(3) to other than public outdoor recreation uses. TDEC-RES has also affirmed that there would not be a conversion of the Wolf River Greenway Connector Trail either, because continuity of the trail would be maintained and the new tunnel would enhance safety for trail users.* *The Notice of Limitation of Use for the Wolf River Greenway Connector Trail and the Land and Water*

SFPC Laura Adams 500 North Pine Lake Drive Memphis, TN 38134 lwadams@shelbyfarmspark.org	*Conservation Fund (LWCF) grant agreement for the arboretum are located in Attachment S to this comment disposition document. Copies of the agreements can be obtained by contacting Robert Richards, Tennessee Greenways and Trails Coordinator at TDEC-RES, at Robert.richards@tn.gov.* Other Issues – SFPC is not satisfied that the plans for the proposed Parkway adequately incorporate the context sensitive design principles recommended by the Shelby Farms Parkway Advisory Team or that the present plans insure that, as that Team agreed, the road will have "a parkway feel," and not that of an expressway or highway. As one example, reducing traffic lane width from 12' to 11' would not affect the safety of this curvilinear road, which SFPC has been told will be signed at 35 mph, and this would reduce the footprint of the road through the Park by 4'. Traffic lane width should not exceed 11'. *The SFPAT agreed to the recommendations for 12-foot lanes. The curvature in the roadway is included for traffic calming; however, 12-foot lanes are considered prudent for safety reasons.* Lighting on the Parkway should be minimal and all utilities should be located underground. *Lighting plans for the project have not been developed in the preliminary stages of the project. No street lighting will be provided for the Parkway between the interchange and Mullins Station Road. In addition, lighting will be provided in the tunnels for safety reasons.* *Utility relocation plans have not been developed in the preliminary stages of the project. Although utilities are not anticipated for the Shelby Farms Parkway, any utilities between the interchange and Mullins Station Road that are required during final design will be placed underground. This commitment will be included in the ROD.* Contingencies – It is SFPC's understanding that the design for the road has still not been finalized, nor has the availability of funding for its construction yet been fully determined, and SFPC for these additional reasons cannot yet agree that the road as designed and/or as constructed will incorporate all possible planning to minimize harm to the Park. *Construction funding for the project has not been finalized at this point. Ongoing coordination is occurring with the SFPC to review impacts and proposed design elements to minimize harm to the Park.*
Heinz J. Mueller, Chief NEPA Program Office, Office of	EPA's concerns are related to potential Water Quality Impacts associated with construction and operation of the proposed project. The document states, "there will likely be short-term impacts to stream fisheries

Policy and Management USEPA, Region 4 Atlanta Federal Center 61 Forsyth Street Atlanta, GA 30303-8960	along the Wolf River due to reduced water quality from physical disturbances, such as rechanneling, bridge pier placement, or other in-stream construction operations." The Wolf River has been identified as not meeting designated uses from loss of biological integrity due to siltation. EPA recommends strict adherence to the erosion control and construction Best Management Practices (BMPs) to protect water quality and aquatic habitat. BMPs located along the banks of the Wolf River may be required and maintained long after the construction phase of this project is completed to ensure that eroded materials are not deposited in the stream. EPA recommends that the ROD address the issues of BMPs and post-construction monitoring to ensure that Water Quality and Biological Integrity are maintained at acceptable levels along the Wolf River and all other streams within the project boundaries. *See pages viii and 75 of the SFEIS in Attachment A. There are no direct impacts to the Wolf River. The city of Memphis and TDOT will develop BMPs that ensure protection of the water quality in the Wolf River and beyond. TDOT will follow the independent Erosion Prevention and Sediment Control (EPSC) and Quality Assurance/Quality Control (QA/QC) field inspection procedures during construction and will establish a post-construction monitoring program until adequate vegetation has been established. TDOT will follow the TDOT Drainage Manual for best practices in protection of the sensitive resources. No work will occur on the banks of the Wolf River.*
Greg Maxted, P.E., Executive Director Harahan Bridge Project 850 Ridge Lake Blvd. Suite One Memphis, TN 38120 Greg@maxlineinc.com	Mr. Maxted asked, How will cyclists/pedestrians safely cross: Walnut Grove Road The current crossing of Walnut Grove at Farm Road is challenging. Dangerous for cyclists/pedestrians Frustrating for drivers Kirby Parkway This will be a very busy road. A grade separated crossing is required. Sycamore View Traffic here will increase significantly; the current crossing will not be safe. The volume of users of the park and Greenline is amazing and growing. Building these roads without including safe access to and thru the park will be a tremendous safety problem, very unpopular, and detrimental to the progress our community has made in sustainability. *See April 13, 2011 PowerPoint in Attachment B of this document. The city of Memphis and TDOT understand the challenges of crossing Walnut Grove Road at the Farm Road intersection. TDOT is currently looking at*

Greg Maxted, P.E., Executive Director Harahan Bridge Project 850 Ridge Lake Blvd. Suite One Memphis, TN 38120 Greg@maxlineinc.com	*an underpass at Walnut Grove. The NEPA Public Hearing in the fall of 2013 will show more detail of this intersection.* *Crossing of the Parkway can occur at either the two tunnels under the Parkway or at signalized intersections at Sycamore View Road, Farm Road, Mullins Station Road, and Macon Road.*
Ryan Schell Board Member; SFPC Chair; Greenline Trail Committee	1) How does the Shelby Farms Greenline interface with the road project? *The Master Plan in Appendix A of the SFEIS (Attachment A of this document) incorporates the Greenline with the Parkway project. The Greenline will cross the Parkway at Mullins Station Road at a signalized intersection with protected crosswalks. Initially, the crossing will be at-grade but future plans call for a grade-separated crossing at this location.* 2) Does the Kirby Parkway between Mullins Station and Macon Road provide provisions for bike lanes or a bike path? *See Attachment B of this document for the April 13, 2011 PowerPoint presentation. The segment of the Parkway from Mullins Station to Macon Road includes four-foot bicycle lanes inside the curb and gutter. There will also be a five-foot sidewalk behind the curb and gutter for pedestrians. This sidewalk has been offset an additional six feet from the curb line to create an eight-foot buffer from the road for pedestrians. The typical section in the SFEIS shows an outdated exhibit. Changes will be made in the ROD reflecting the revised typical as shown in the April 13, 2011 PowerPoint presentation.* *TDOT showed conceptual drawings to the SFPAT on April 11, 2011 depicting the existing and proposed paths in the area of the roadway project; these drawings are included in the Attachment B PowerPoint.* 3) What steps are being taken at intersections and park entrances to minimize conflict between motorists, pedestrians, and cyclists?

Ryan Schell Board Member; SFPC Chair; Greenline Trail Committee	*Crossing areas, traffic signals, overpasses, and tunnels will be incorporated in final design for protection of all modes of transportation using the facilities. Segments B and C were moved from the west to the east side of the parkway to better fit the uses within the park and to increase safety.* 4) Are connections built into the road design that accommodates trail users of all skill levels and abilities? *The SFPAT preferred that separate multi-use trails be used throughout Shelby Farms due to the mix of trail users anticipated, particularly youths. All connections will be designed through coordination with the SFPC and the SFPAT. Trails will be ADA-compliant.* 5) Is consideration for pedestrians, bicyclists, and equestrians being given throughout the design process? *See page 62 of the SFEIS in Attachment A. Yes, with input from the SFPAT, the roadway project will be sensitive to all users within the park system.* 6) What steps are being taken to ensure good vehicular access to the park for visitors, customers, event attendees and other that allow the nonprofit that runs the Park to raise money? *With the completion of the project, the Shelby Farm Parkway will improve existing traffic conditions, in addition to better handling high volumes of traffic during park events.*
Steve Basar steve.basar@merck.com	Mr. Basar asked, …there have been no design documents released to the public specifying what accommodations would be made for pedestrians, cyclists, and equestrians. When design documents do become available, I hope to see them feature accessibility to and through the Park for all park users. In addition, I do not believe that the comment period should be closed until these design documents are made available to the public for public comment. *Specific details relating to the final design are not listed in the SFEIS; however, the recommendations from the SFPAT have been forwarded to the design consultant to incorporate into the final design. Currently, design will be advanced after the environmental process has been completed through the ROD.* I do believe that you should consider utilization of a traffic circle in place of the proposed interchange. We

Steve Basar steve.basar@merck.com	need an innovative approach and I believe that a traffic circle would be a better choice. I would also prefer an alternate scenario with the proposed road linking up with Mullins Station nearer to Farm Road rather than the plan to put in multiple lanes of traffic through existing green space. There is a bike lane running from Shelby Farms park to the green line. Your proposed roadway would bisect this crucial path between the greenway and the park. I also want to highlight the need for extreme caution to any roadwork near the landfill boundary. The aquifer cleanliness and quality cannot be jeopardized. *Traffic circles, or roundabouts, were considered early in the CSS process; however, roundabouts were not advanced by the SFPAT at this location due to the heavy volume travelling from eastbound Walnut Grove to the northbound Parkway. In general terms, circulating volume in a roundabout requires one lane for 0-1,400 vehicles per hour, two lanes for 1,400-2,000 vehicles per hour, and three lanes for 2,200-2,900 vehicles per hour. As shown in Attachment O of this document, the circulating volumes forecasted for this location would exceed 4,000 vehicles per hour in both the AM and PM peak hours. Construction of a roundabout with more than three circulating lanes would be unprecedented in Tennessee and would require considerable driver education as well as more lane-widening outside of the roundabout to handle the exiting traffic safely. The heavy left turn movement (1,846 vehicles per hour (vph) in PM) from eastbound Walnut Grove Road to northbound Shelby Farms Parkway requires utilizing three-quarters of the roundabout and mixing with through traffic on Walnut Grove Road in both directions, which greatly increases circulating volumes and makes the roundabout unfeasible.* *The SFPAT looked at several alignment scenarios and preferred connecting directly with Whitten Road to preserve route continuity, facilitate traffic flow, and avoid the introduction of offset intersections.* *The multi-use trail constructed in 2011 through Shelby Farms will be tunneled and spanned by the Parkway to retain connectivity.* *A study was performed during the CSS process to define the landfill boundaries and look at possible clean-up scenarios. Ultimately, the SFPAT met to review the findings of the study and options available and chose to modify the Selected Alternative slightly to avoid any impacts to the existing landfill.*
Joan Byrne mjoanbyrne@hotmail.com	I do not want the planned development at Shelby Farms regarding the new road to take place. Shelby Farm Park is too valuable and beautiful to have a road destroy it. Also, the best water system in the country may be affected. *The in-line oil and grit chamber is proposed within pages 69-73 of the SFEIS in Attachment A. With the*

Joan Byrne mjoanbyrne@hotmail.com	*application of the commitments and other mitigation measures, it is not expected that the construction or maintenance and operations of Kirby Parkway through Shelby Farms will negatively impact the Memphis aquifer or its water quality. According to Dr. Jerry Anderson of the Groundwater Institute, reports have indicated that the groundwater supply most susceptible to contamination is the Sheahan well field, which is five miles away and downgradient of Shelby Farms. It is calculated that it will take from 50 to 150 years for the groundwater to travel from Shelby Farms to the Sheahan well field. Given the time and distance of groundwater transport, any contaminants in the groundwater would not likely persist to reach the Sheahan well field because of the effects of various physical, chemical, and biological processes, including dilution and adsorption. The chamber is being considered further and may not be feasible, and other techniques will be considered in final design.* *See page 75 of the SFEIS in Attachment A. Final design will incorporate BMPs to avoid any potential impacts to the drinking water system.*
Jim Strickland, District 5 Council Memphis City Council 125 N. Main, Suite 514 Memphis, TN 38103	The process to date was flawed because there was no public meeting that was well publicized, incomplete information was given to the limited number of people who did participate, and there was no public hearing to review the "final plan." The possible negative impact of the new roadway on the aquifer, floodplain, and wetlands. There may be no need for such a road. *See pages 69-73 of the SFEIS in Attachment A. With the application of the commitments and other mitigation measures, it is not expected that the construction or maintenance and operations of Kirby Parkway through Shelby Farms will negatively impact the Memphis aquifer or its water quality. According to Dr. Jerry Anderson of the Groundwater Institute, reports have indicated that the groundwater supply most susceptible to contamination is the Sheahan well field, which is five miles away and downgradient of Shelby Farms. It is calculated that it will take from 50 to 150 years for the groundwater to travel from Shelby Farms to the Sheahan well field. Given the time and distance of groundwater transport, any contaminants in the groundwater would not likely persist to reach the Sheahan well field because of the effects of various physical, chemical, and biological processes, including dilution and adsorption.* *See page 54 of the SFEIS. Minimal clearing of trees and vegetation cover within the floodplains and zero-bank clearing at streams would reduce floodplain and water quality impacts. Every action will be executed to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and*

Jim Strickland, District 5 Council Memphis City Council 125 N. Main, Suite 514 Memphis, TN 38103	*to restore and preserve the natural and beneficial values served by floodplains.* *The project will not result in a significant increase in flooding in the Wolf River floodplain. The guidelines of FEMA's National Flood Insurance Program (42 USC 50) will be met. They will also be consistent with requirements of floodplain management guidelines for implementing Executive Order 11988 and FHWA guidelines in 23 CFR 650A. Any hydraulic structures will be sized according to TDOT's policies in the TDOT Drainage Manual (http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm) or the TDOT Design Procedures for Hydraulic Structures (http://www.tdot.state.tn.us/chief_engineer/assistant_engineer_design/structures/thmall.pdf) during the design phase of the project. Structures will be sized to pass the appropriate flood flows in a riverine environment, and the floodplain connection will be maintained with three box culverts for flow equalization purposes. Water surface elevations are specified in hundredths of a foot, so an accurate numerical estimation cannot be provided until the hydraulic design is complete.* *See page 76 of the SFEIS in Attachment A. The SFPAT was a cross-section of representatives with a wide variety of viewpoints, goals, and experiences. The Team worked together to select an alignment and roadway design concepts that the group could agree to. No one agreed with all of the aspects of the final recommendation, but they all agreed the recommendation was the best combination of the group's work. This process resulted in all members reaching consensus on and signing the final recommendation. That recommendation will serve as the background for the final design of the project, although coordination with the SFPAT will be ongoing.* *See Attachment F showing the advertisement for the December 13, 2007 Public Hearing. TDOT's process for advertising public meetings was followed for this project (see http://www.tdot.state.tn.us/documents/pip.pdf). The public comment period for environmental documentation is still ongoing. In addition, the "final plan" will not begin until the environmental document process has ended. TDOT will hold a design meeting at a later date, as design progresses.* *The need for the Kirby Parkway project was documented in several transportation studies. For more than three decades, Memphis regional transportation plans have included a north-south connection in the vicinity of Shelby Farms. These plans were part of an overall strategy for a coherent road pattern based on a one-mile grid system. According to plans, a road pattern consisting of a north-south element was missing from the desired grid. In 1983, Kirby Parkway was chosen as the north-south route between I-240 and*

Jim Strickland, District 5 Council Memphis City Council 125 N. Main, Suite 514 Memphis, TN 38103	*Germantown Parkway. Since that time, the route has been redesigned to reflect opinions stated during several public meetings. Prior to 1983, the regional plans consisted of two major north-south roadway projects, the northern extension of Kirby Parkway and the proposal for a Riverdale Road. In 1983, development of the Agri-Center International center located in Shelby Farms decreased the possibility for Riverdale Road. The proposed Kirby Parkway extension northward to Whitten Road remained intact.*
Paul Krog 934 Neuhoff Lane Nashville, TN 37205 pjkrog@gmail.com (901) 484-1059	I have recently reviewed the Department's Proposed Kirby Parkway Supplemental Final Environmental Impact Statement. I have neither opinion nor comment on the "environmental impact," per se, of the proposal to extend Whitten Road south through Shelby Farms, in so far as by this term we mean repercussions for wildlife, the Memphis aquifer, and the various species of grass found in eastern Shelby County. After reviewing the proposed roadway itself, however, I can only conclude that the project in general is an over-engineered disaster of a plan. I lived in Memphis essentially for my entire life. I have recently been compelled due to my employment to move to Nashville, but return regularly to Shelby County to visit friends and family. In so doing, I invariably travel through Shelby Farms down the existing Walnut Grove corridor. It does not require an engineering degree to realize that the park constitutes a substantial barrier to north-south traffic flow between the Germantown and Bartlett areas. At the same time, however, the paucity of alternative routes owes as much to the design of the roadways surrounding the park as it does to their absence within it. Unfortunately, the proposed roadway may be the worst possible way to build a traffic corridor through the park. First, the proposed placement of the roadway beggars belief: it stacks a complicated interchange right on top of the existing complicated Walnut-Grove–Humphreys interchange; it requires traffic coming from the south to utilize already-busy Walnut Grove to continue progressing north; it ignores the existing (and hugely overworked) Farm Road corridor in favor of cutting a route; and it provides no more direct connectivity to north-south corridors south of the Wolf River than already exists. The proposed road allows a motorist to do nothing he could not already do by traveling I-40 and I-240 between the Sycamore View and Walnut Grove interchanges. Second, the proposal reflects the perverse curved-road mania that has seized urban planners and engineers in recent decades. One of the principal infrastructural strengths of the City of Memphis has long been its sensible and largely orderly system of straight, parallel roadways. A person can never orient himself within Nashville, with its haphazard system of twisting streets, much less find alternative routes or travel without a map due to the scarcity of major thoroughfares and the labyrinthine convolutions of all other roads (and several of the major ones as well). An individual travels easily and with confidence down a straight road, by

Paul Krog 934 Neuhoff Lane Nashville, TN 37205 pjkrog@gmail.com (901) 484-1059	contrast, because he can maintain his orientation and better approximate the distance between points. I understand full well that the proposal calls for a serpentine corridor in part to assuage the fears of some critics: supposedly a curvy road will seem less intrusive, be more easily shielded by trees, and permit the construction of affiliated trails. This is all hogwash. A road is a road, and no quantity of trails or trees will hide the fact that the old bison pasture has a four-lane highway running through its midst. If the city needs a road run through its park, it needs a road, and it ought not to build an absurd road out of a more absurd belief that it can be hidden behind a curvy hedge. Once motorists slip off the needlessly twisted road and plow through the hedges, they will significantly diminish whatever meager shielding the hedge might have provided. On the topic of absurdities, one might mention the proposed name. While Memphis, at least inside the I-240 loop, is blessed with a sensible system of roads, it has never been known for the logic of those roadways' names. This proposal, however, may take the cake. The state intends to extend a roadway named Whitten, connect it to another roadway named Walnut Grove, and name the new stretch of blacktop Kirby. To ratchet the inanity up a few notches, Whitten is, of course, called "Kirby Whitten" farther north and the proposed "Kirby" will terminate near to—but in no way contiguous with—an existing stretch of road known by the same name. If one were to squint, and ignore all common sense, one might perceive that the two roads were really one "dog-legged" street. If the state wished to extend Kirby Parkway north through Shelby Farms, the state should have developed a plan to do so. If the state wishes to build a road elsewhere, it should not commit the monstrous act of giving it the same name as an existing but non-contiguous street. The English language contains tens of thousands of words that have not yet been put to use identifying roadways in Shelby County. In sum, the proposal as a whole suffers from the worst-of-all-possible-options disease that has afflicted Memphis road-building proposals for decades. When the various responsible parties prepared plans to run I-40 through town, they chose, out of all possible places, a route running through the nine blocks spanned by one of the city's largest parks. If the Department of Transportation had drawn its line a few hundred yards to the north, either initially or after the initial protest, I-40 would run through Memphis and nobody would miss a short stretch of North Parkway. Instead, the state fought an ultimately pointless legal battle over what was always a stupid plan and left Memphis with a mind-bogglingly inept interstate system. Once again, the State has insisted on running a new roadway through a Memphis park. The result has already been years of griping and complaints, and the product an over-wrought mess that will likely solve

Paul Krog 934 Neuhoff Lane Nashville, TN 37205 pjkrog@gmail.com (901) 484-1059	none of the complained-of problems and fulfill every gainsayer's dire predictions. Yet the alternatives discussed in the proposal hardly deserve to be identified as such. None show any substantial difference in the road's placement or design. All they show are the same pointlessly curved street, with merely slight differences in the geometry. Nothing about the proposal instills me with confidence in the officials at the federal, state, county, or municipal level who developed and will implement the plan. Finally, there does remain the question of competing goods. Germantown Parkway is overtaxed at the moment. But is a potential marginal relief of that congestion—and then relief available only by way of the inanely circuitous route necessitated by the proposed roadway—worth sacrificing part of Shelby Park? Perhaps, but that is not an engineering question. It is clearly what we these days call a "value judgment" about the comparative worth to the community of non-commensurate social goods. I do not believe our system of government intends to delegate those sorts of decisions to unelected bureaucrats and technical specialists. *See page 76 of the SFEIS in Attachment A. The SFPAT was a cross-section of representatives with a wide variety of viewpoints, goals, and experiences. The SFPAT worked together to select an alignment and roadway design concepts that the group could agree to. No one agreed with all of the aspects of the final recommendation, but they all agreed the recommendation was the best combination of the group's work. This process resulted in all members reaching consensus on and signing the final recommendation. That recommendation will serve as the background for the final design of the project, although coordination with the SFPAT will be ongoing. Ultimately, the City of Memphis and the Tennessee Department of Transportation will make the final decisions regarding design of the project.* *The Selected Alternative Q was moved as far west as possible, as recommended by the SFPAT, to minimize indirect impacts to the park. The existing land use within the footprint of the corridor is primarily agriculture. The trumpet interchange was considered as opposed to an at-grade intersection; ultimately, the SFPAT recommended the trumpet interchange due to the need to accommodate the heavy movement from eastbound Walnut Grove Road to the northbound Shelby Farms Parkway. In-depth traffic simulations were prepared to analyze the operation of each alternative and also to determine how far west the interchange could be shifted without creating unsafe weaving and merging operations between this interchange and the recently constructed Humphreys Boulevard interchange.* *The Farm Road corridor was considered by the SFPAT as a potential location for the Parkway. The SFPAT ultimately chose to recommend moving the alignment as far west as practical to allow for future planned*

Paul Krog 934 Neuhoff Lane Nashville, TN 37205 pjkrog@gmail.com (901) 484-1059	*expansions of the park facilities and to keep traffic as far from the open air activities as possible. A curvilinear alignment was overwhelmingly preferred by the SFPAT as a method of slowing traveling speeds within the Shelby Farms area. A curving roadway with more character was also seen as a way to attract more casual, local drivers through Shelby Farms while also discouraging drivers from using it as a cut-through route.* *The name Kirby-Whitten Parkway is used on the environmental document to be consistent with the original Environmental Impact Statement that this document supplements. The SFPAT chose to recommend the name Shelby Farms Parkway for the portion passing through Shelby Farms to honor that facility. The signing and naming of the roadway will be finalized after construction. If other names for the facility are suggested, the city of Memphis will consider them.*
Scott Henninger, RLA scott.henninger@yahoo.com	I am responding to the Kirby Parkway project in Memphis within Shelby Farms. The congestion in the area has led to the need for this connection and I agree that it should be constructed. I also believe that there should be an interchange or traffic circles located at its intersection with Mullins Station Road and at the extension of Sycamore View. Stoplights in the park make it appear unnatural and only create more air pollution by the idling and noise pollution by accelerating of vehicles. Through traffic on Kirby Parkway should be given the priority with no stopping necessary. These interchanges/traffic circles could also create a true gateway into the park. Separate pedestrian and bike traffic from the vehicular traffic and design the road similar to East Parkway with wide (100') medians and plantings throughout. Design the interchanges as low impact as the Union Avenue/East Parkway Interchange and the skeptics in the end will be happy with the design. Thanks for allowing us to provide comments. *Traffic circles, or roundabouts, were considered by the SFPAT at Mullins Station Road but ultimately not recommended. In general terms, circulating volume in a roundabout requires one lane for 0-1,400 vehicles per hour, two lanes for 1,400-2,000 vehicles per hour, and three lanes for 2,200-2,900 vehicles per hour. As shown in Attachment O of this document, the circulating volumes forecasted for this location would exceed 4,000 vehicles per hour in both the AM and PM peak hours. Construction of a roundabout with more than three circulating lanes would be unprecedented in Tennessee and would require considerable driver education as well as more lane-widening outside of the roundabout to handle the exiting traffic safely. The heavy left turn movement (1,846 vph in PM) from eastbound Walnut Grove Road to northbound Shelby Farms Parkway requires utilizing three-quarters of the roundabout and mixing with through traffic on Walnut Grove Road in both directions, which greatly increases circulating volumes and makes the roundabout infeasible.*

Scott Henninger, RLA scott.henninger@yahoo.com	*Pedestrian and bicycle traffic is separated from the through Parkway traffic within Shelby Farms by using multi-use paths. The median width of the road is variable to allow for landscaping that will be developed later in final design. The interchange design at Walnut Grove Road was tweaked several times during the CSS Process to make it as low-impact as possible while retaining safety and highway capacity principles. The existing Parkways in Memphis were reviewed and presented to the SFPAT early on as examples of other Parkways both in Memphis and throughout the US.* *See page 41 of the SFEIS in Attachment A. According to the calculated existing microscale emissions of carbon monoxide, the maximum carbon monoxide concentrations in 2005 were 9.9 ppm for one-hour concentrations and 6.8 ppm for eight-hour concentrations. The maximum carbon monoxide (CO) concentrations for 2026 are 8.0 ppm for one-hour concentrations and 5.4 ppm for eight-hour concentrations. The maximum CO concentrations for 2030 are 8.1 for one-hour concentrations and 5.5 ppm for eight-hour concentrations. The analysis shows that carbon monoxide concentrations for all receptors analyzed are below the one-hour standard of 35.0 ppm and the eight-hour standard of 9.0 ppm.*
Joe Sills | Artist Parker Prints, Inc 1377 S. Lauderdale Memphis, TN 38106 | 901.946.7844 joesillsart@gmail.com	I am writing to express my concern regarding the proposed interchange in Shelby Farms Park: http://www.tdot.state.tn.us/kirbyparkway/. As an avid user of the Park, I feel qualified to give my opinion: As you may be aware, a rails-to-trails project, the Shelby Farms Greenline, connecting Shelby Farms Park with neighborhoods all over Memphis was opened last year. Since then, successful local businesses have sprung up all along the Greenline; and Shelby County has enjoyed an unprecedented rise in the popularity of cycling and running, and Shelby Farms Park has enjoyed an equally impressive rise in use. Considering the positive impact the Shelby Farms Greenline has had on our community in just a short span of time, it seems illogical to build a high-speed four lane thoroughfare across a key part of it (the crossing at Mullins Station which connects to Chickasaw Trail in Shelby Farms Park). In addition to potentially impacting the fluidity of the Greenline, the TDOT interchange would bisect a main service road for users of the Wolf River Trails, which lies on the present North side of Walnut Grove; and further inhibit trail users from accessing the Wolf River side of Shelby Farms if proper accommodations (bike and pedestrian bridges) are not made over the impacted areas. Aside from these concerns are the inherent increases in traffic noise near an already sensitive ecological area--the Lucius E. Burch Natural Area (http://tn.gov/environment/na/natareas/lucius/). Thanks to the success of the Shelby Farms Greenline, more people than ever are enjoying the main park,

Joe Sills | Artist Parker Prints, Inc 1377 S. Lauderdale Memphis, TN 38106 | 901.946.7844 joesillsart@gmail.com	Wolf River Trails, and natural area--most of whom genuinely enjoy the relative serenity of the current Shelby Farms layout. Yes, rush hour traffic on Walnut Grove is abysmal, but one more parkway won't solve that problem. You only have to look a few miles to the west at I-240 or east at Germantown Pwky to realize that. Information about your roadwork plan is readily available; but before proceeding with this project on publicly owned land, TDOT should provide detailed plans of how you will address the concerns of the park and trail users whom you will be directly affecting. We are dealing with one of the most enjoyable parts of Memphis here--a jewel in our proud city's crown. It is an ecologically sensitive, publicly loved, and incredibly beautiful place. The majority of Memphians love the park, and park users are very uneasy about these parkway plans. Public opinion regarding highways in the Bluff City has changed. Memphians do not want more sprawling asphalt arteries. We especially do not want tractor-trailers driving through one of the most tranquil parts of our city. Imagine if a similar project, headquartered in Memphis, were announced through Centennial Park. That is presently the pulse of public opinion here. Even so, I would imagine that most sensible people could be persuaded to meet TDOT in the middle if you provided a little more information. *Approximately 14,146 feet, or 2.68 miles, of trails will be added during construction of the parkway, as shown in the SFEIS in Attachment A. Final design for the Parkway has not begun pending completion of the ROD. Final design will include an at-grade cross walk of the Parkway for users of the Greenline at Mullins Station. This crossing will be compatible with a future grade-separated crossing for the Greenline. Tunnels will be used for the trails to cross the Parkway and Walnut Grove. As final design progresses, details of the features incorporated will be coordinated through the SFPAT and the SFPC. The parkway is designed for a low-speed facility at a 40 mph speed limit; however, it will be signed 35 mph. In addition, a meeting will be held at a later date to present refined concepts and designs to the public as design progresses.* *On page 76 of the SFEIS in Attachment A, according to 23 CFR 658.19(a), reasonable access between National Network routes (such as nearby I-240, I-40, and US 79) and points of loading and unloading to household goods carriers, motor carriers of passengers, and other covered truck tractor/semitrailer combinations is required; therefore, since non-motorized traffic and tractor-trailer traffic will be separated in the proposed parkway, thereby making the road safer for all users, tractor-trailer traffic cannot be*

Joe Sills | Artist Parker Prints, Inc 1377 S. Lauderdale Memphis, TN 38106 | 901.946.7844 joesillsart@gmail.com	*prohibited from using the parkway because the state cannot deny reasonable access to tractor-trailers (23 CFR 658.19(h)(ii)).* *Recreational areas will experience some noise-related impacts from the proposed project. Field measurements were taken at the Shelby Farms Tournament BMX Track and an analysis was performed to identify potential traffic noise impacts as required by the FHWA's Noise Abatement Policy in place in 2005. This policy classified recreational areas as Activity Category B, with Noise Abatement Criteria (NAC) standard of 67 dBA L_{eq}. The traffic noise impact analysis indicated that traffic noise impacts would exist for the Build Scenario in the design year as both the NAC would be exceeded and the increase in noise levels from existing noise levels is 10 dBA. On July 13, 2011, the Noise Abatement Policy was revised and recreational areas were reclassified from Activity Category B to Activity Category C; however, the Noise Abatement Criteria standard remained the same at 67 dBA L_{eq}. Therefore, the conclusion of the traffic noise impact study did not change, and there will be noise impacts to the site; however, the Tournament BMX Track is not considered noise-sensitive due to the nature of the recreational activities that occur there.* *While the Lucius E. Burch SNA could be a noise-sensitive resource, no substantial impairment would occur given the distance from the proposed project. The SNA is approximately 300 feet from the proposed changes to Walnut Grove Road and approximately 1,200 feet from the proposed path of the north-south section of the project. This area of the SNA and its periphery are highly vegetated, which could reduce noise impacts. Vegetation, if it is tall enough, wide enough, and dense enough that it cannot be seen through (as in the case of the periphery of the SNA), can decrease highway traffic noise. One 200-foot-deep swath of dense vegetation can reduce noise by 10 decibels, which cuts the loudness of traffic noise in half. Since the SNA has at least a 200-foot-deep buffer of vegetation between its boundary and the proposed improvements to Walnut Grove Road, constructive use of the SNA is unlikely.*
Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	I object to the planned roadway proposed in the SFEIS for Kirby Parkway (aka Shelby Farms Parkway) for numerous reasons which I document below. A) Public Involvement- Such a major public investment, and such a major change to the grounds of the Shelby Farms Park demands a public review process. The CSS process was incomplete. I shake my head in disbelief when I think about that. I strongly request that a public meeting on the SFEIS be held and then be followed by a 30-day comment period. I further request that the meeting and review period be well-publicized throughout traditional media, social media, and other appropriate online sources (a tiny notice in the "Legal Notices" section of the Commercial Appeal, and La Prensa is not "well-publicized").

Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	*See page 76 of the SFEIS in Attachment A. The Public Hearing was held on December 13, 2007. In addition, two other Public Meetings were held on March 24, 2005 and November 11, 2005. Six Resource Team Meetings were held with the SFPAT. A NEPA Public Hearing, with a 30-day comment period, will be held in the fall of 2013. This meeting will be advertised utilizing multiple resources. TDOT will go beyond their standard advertising practices for this meeting.* A.1) I point out numerous errors on the TDOT Kirby Parkway webpages- 1) "default" page makes no mention of the SFEIS or of any review period, 2) the "timeline" page seems to suggest that the review period was over a month ago, stating, "The public will have 30 days from February 24, 2012.", 3) the "library" page currently has a link to a "re-issued notice" which has a confusing date reference, "Tuesday, April 26, 2012" (it does properly state April 26, 2012 further on in the same notice.) *At the request of the SFPC, the comment period was extended to April 26, 2012. The timeline page was not properly updated to reflect the comment-period extension; however, the project library page contains all project-related materials and adequately addresses the Re-Issued Public Notice.* A.2) I also emphasize that all relevant information must be available at that meeting during the subsequent review period, or further objections to the plan would be likely. It should also be available online. As one example, since the SFEIS is a Supplement, the original FEIS should be available. Other documents that are referred to in the SFEIS should be made in the same ways. *All technical studies relating to the project are posted on TDOT's project Web site: www.tdot.state.tn.us/kirbyparkway.* A.3) As stated above, the CSS process was used for citizen involvement and support. And it started as a good approach to developing a plan. However, in the end, it failed to meet its objectives and failed to follow the planned approach. Specifically, certain information was not shared with the public at the CSS meetings- details of the risks to the aquifer, the wetlands, and the floodplain. Additionally, the last meeting was quite some time ago, and new information has become available. A proper CSS process should have included further meetings to share and review such information, and to cooperatively adjust plans accordingly. For example, risks to the aquifer, et al might have encouraged the CSS team to focus on a new location or simpler design for the roadway intersection/interchange. *Additional meetings of the SFPAT were held in April and August of 2011 and June of 2012 as preliminary*

Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	*design has progressed. See page viii and Appendix H of the SFEIS (Attachment A of this document). The potential aquifer breach issue was not brought up during the CSS process prior to the SDEIS being signed. After the SDEIS was advertised for public comment, the Project Team became aware of the aquifer breach issue and took the necessary precautions to avoid, minimize, and mitigate any potential impacts. Identification of the aquifer reflects TDOT, FHWA, and the county's effort to address potential issues.* B) Justification for roadway and forecast problems- I have requested numerous times that I be given access to the transportation engineers to discuss and review the traffic forecasts. So far, I have not been given access to these individuals, I have only been given minor bits of additional information. *See Attachment D of this document for traffic data from 2005 and Attachment M for updated 2012 forecasts. All questions and comments are being addressed at the end of the comment period through this response.* B.1) No travel time studies to calibrate the forecasting model have been done in the vicinity of the Park. I discovered this by digging into the Appendix of the 2040 LRTP (see Appendix_G_TDM_Final- Figure 1, pg. G-45). This includes Walnut Grove Rd, Farm Rd, Germantown Rd, Mullins Station Rd, Kirby Whitten Rd, etc etc. The only calibrating travel time studies done anywhere near the Park are I-40 from Germantown Rd to I-240, and the I-240 loop. *An FHWA-approved TransCAD model was provided by the Memphis MPO for use on the project. The model was refined based on traffic counts taken in the project area. Travel times were gathered by the Project Team to calibrate the micro-simulation model. The current LRTP is included in Attachment L of this document and can be viewed on the Memphis Urban Area's Web site:* http://memphismpo.org/index.php?option=com_content&view=article&id=116&Itemid=413. *Further model data is available through the Memphis MPO. Their Web site is www.memphismpo.org, and the point of contact is Pragati Srivastava, Administrator, at (901) 576-7190. The Memphis MPO model is described in Chapter 9 and Appendix G of the LRTP (see Attachment L of this document).* B.2) I have requested to look at the O-D Matrix (Origin-Destination) which represents local travel patterns. I strongly believe that a very high percentage of the OD trips that are "estimated" to use the Parkway would be better served by an uncongested I-40/I-240, by a better functioning Germantown Rd, or by other roads in the area. I have not been given access to this information or to a forecasting engineer or planner to assist

Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	me in reviewing the traffic flows. Even worse, I have not been able to even find out what assumptions have been made about the entire road network- what upgrades and congestion factors are assumed for I-40/I-240, Germantown Rd, Walnut Grove Rd, Mullins Station, etc? Obviously, traffic on the planned roadway depends on what alternative paths are available. Planners have not made this information available. *See the two PowerPoint presentations shown to the SFPAT in April and August 2005 in Attachment K and see the original traffic forecasts in Attachment D and the new 2012 traffic numbers in Attachment M. These PowerPoint presentations describe the process of developing traffic forecasts using the Memphis MPO model and the results of those forecasts. The SFPAT used the data to select design criteria such as number of lanes, design speed, and intersection/interchange types.* *The Memphis MPO model was used in developing traffic forecasts. Forecasts were then compared to current traffic counts and adjustments were made to the sub-area model. Multiple alternative schemes were modeled that reflect different forecasts depending on number of through lanes, design speed, intersection/interchange type, etc. As more lanes were added to the Parkway and impedance was reduced through higher design speeds and more free-flowing intersections, the anticipated traffic volumes increased. With a grid of alternative routes including I-240, I-40, Appling Road, Sycamore View Road, Walnut Grove Road, Macon Road, Mullins Station Road, Germantown Road, etc., the new Parkway provided anticipated capacity from the other roads as speeds and capacity increased and impedance was reduced. For that reason, the SFPAT made a recommendation for what they considered to be an appropriate combination of elements including utilizing four lanes as opposed to the previously proposed six. This was a much-discussed topic and the Team reached consensus on one configuration that has been carried forward.* *Planned improvements to I-40/240 and other roads in the area were included in the Memphis MPO model and were therefore incorporated in the forecasts.* *Further model data is available through the Memphis MPO. Their Web site is www.memphismpo.org, and the point of contact is Pragati Srivastava, Administrator, at (901) 576-7190. The Memphis MPO model is described in Chapter 9 and Appendix G of the LRTP (see Attachment L of this document).* B.3) Farm Rd is clearly not handled properly in the forecast, which makes the entire forecast suspect. Specifically, the Build and No-Build alternatives both forecast the exact same traffic volumes for Farm Rd. (For example, in 2030 = 18,290 ADT. See pg 48, Table 4.3. Average Daily Traffic (ADT) and project Vehicle Miles Traveled (Daily VMT)).

Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	*The 2010 and 2030 Build ADTs for Farm Road (Table 4.3) on the Air Quality table on page 48 are erroneous and will be corrected. The previous 2004 model did not have a link for residual traffic on Farm Road. The most current model has a link and the new forecast shows residual traffic of 1,200 ADT on Farm Road which will be used to update the Air Quality analysis. These are not the forecasted volumes used in choosing the Selected Alternative. Traffic on Farm Road will be reduced significantly in the Build condition. This error on Farm Road was only limited to the Air Quality table and not the decision-making process for the project.* B.4) There is no effort to financially justify the road. No cost figures for the overall plan are shown (either construction cost or long-term maintenance cost), no attempt to quantify benefits has been made, and no effort has been made to compare the cost/benefit ratio to other contemplated projects. These same issues apply with regards to the expensive interchange- no attempt has been made to compare costs and cost benefits of different intersection/interchange designs, or different intersection locations. Wikipedia says that "Grade-separated junctions are very space-intensive, complicated, and costly..." Whenever such an expensive interchange is contemplated, the costs should be carefully justified, with publicly shared cost figures and estimates of benefits in dollars. *Due to the subjective nature of the calculation of benefit/cost ratios, TDOT does not have a policy of developing benefit/cost ratios to justify these types of projects. Cost estimates for the Parkway and the two final interchange types were presented to the Team while developing their recommendations. The Purpose and Need refers to accidents and capacity as justification. Projects are prioritized based on available funding.* *The most recent planning level cost estimates developed for the project in 2008 estimate the interchange to be approximately $7.8 million of the total project cost of $23.8 million. The Memphis MPO prioritizes projects that are recommended for funding. In 2005, Palmer Engineering developed, and TDOT approved, forecasts for the use of the SFPAT.* *The SFPAT were presented traffic forecasts, turning movements, renderings, costs, impacts, and traffic simulations in the recommendation of the preferred interchange. The selection of a recommended interchange configuration was not easy and extensive efforts were made to reduce the footprint and height of the interchange. Details regarding the materials and final configuration of the interchange will be coordinated during final design with the SFPAT.*

Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	B.5) In addition to the fact that the cost of the roadway and the interchange have not been justified, we should consider the costs in light of everyone's tight budgets these days- personal, City of Memphis, Shelby County, State of Tennessee, and Federal. Without cost estimates, without a cost-benefit analysis, and without a comparative ranking vs. other projects, it is just totally inappropriate to consider this road at this time. *TDOT, the city of Memphis, and the Memphis MPO consider project costs in the prioritization process for funding projects. This process is continuously ongoing based on updated cost estimates and variations in funding available.* C) Environmental issues- As a citizen, I certainly want these issues resolved before I would even consider supporting the roadway. I know that others have expressed concern about these issues in detail- aquifer, floodplain, and wetlands among others- and I agree that they are significant concerns which must be addressed. I strongly believe that these need to be resolved satisfactorily to the public before the road could be approved. There is also the additional "new" concern that trucks may be allowed across this roadway, which increases those concerns- see my point (C.1). *See pages 69-73 of the SFEIS in Attachment A. With the application of the aforementioned commitments and other mitigation measures, it is not expected that the construction or maintenance and operations of Kirby Parkway through Shelby Farms will negatively impact the Memphis aquifer or its water quality. According to Dr. Jerry Anderson of the Groundwater Institute, reports have indicated that the groundwater supply most susceptible to contamination is the Sheahan well field, which is five miles away and downgradient of Shelby Farms.* *See page 54 of the SFEIS; minimal clearing of trees and vegetation cover within the floodplains and zero-bank clearing at streams would reduce floodplain and water quality impacts. Every action will be executed to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains.* *The project will not result in a significant increase in flooding in the Wolf River floodplain. The guidelines of FEMA's National Flood Insurance Program (42 USC 50) will be met. They will also be consistent with requirements of floodplain management guidelines for implementing Executive Order 11988 and FHWA guidelines in 23 CFR 650A. Any hydraulic structures will be sized according to TDOT's policies in the TDOT Drainage Manual*

Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	*(http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm) or the TDOT Design Procedures for Hydraulic Structures (http://www.tdot.state.tn.us/chief_engineer/assistant_engineer_design/structures/thmall.pdf) during the design phase of the project. Structures will be sized to pass the appropriate flood flows in a riverine environment, and the floodplain connection will be maintained with three box culverts for flow equalization purposes. Water surface elevations are specified in hundredths of a foot, so an accurate numerical estimation cannot be provided until the hydraulic design is complete.* *See page 79 of the SFEIS in Attachment A. The SFPAT on January 11, 2006 wanted to have the proposed parkway as far west as possible to avoid any impacts to the park area. In addition, this alternative avoids impacts to the potential breach of the aquifer. The preliminary design of the interchange at Walnut Grove Road includes the construction of detention ponds within the interchange, which will slow the conveyance of stormwater from the road. The stormwater runoff should not affect the aquifer because the water will be forced to flow past the area of concern and into the Wolf River.* *Detailed wetland studies and delineation will take place prior to the Section 404/401 permitting. For Department of Army (DA) permits, each crossing of a water of the U.S. is typically considered a single and complete project; therefore, each crossing/impact site should be specified as just part of a permit application. Mitigation monitoring plans will be approved by permitting agencies, and will be included with the wetland mitigation plan. If at all possible, avoidance of floodplains should take place. If this is not feasible, construction limits will be minimized and BMPs will be utilized. During or following high precipitation, limited activity should occur; work near streams shall be conducted during low-flow periods to minimize disturbance. Wetland, stream, and floodplain impacts are discussed in Section IV.C on page viii of the SFEIS in Attachment A.* *On page 76 of the SFEIS in Attachment A, according to 23 CFR 658.19(a), reasonable access between National Network routes (such as nearby I-240, I-40, and US 79) and points of loading and unloading to household goods carriers, motor carriers of passengers, and other covered truck tractor/semitrailer combinations is required; therefore, since non-motorized traffic and tractor-trailer traffic will be separated in the proposed parkway, thereby making the road safer for all users, tractor-trailer traffic cannot be prohibited from using the parkway because the state cannot deny reasonable access to tractor-trailers (23 CFR 658.19(h)(ii)).* *The SFPAT made a recommendation for a lower design speed and signalized intersections for the Parkway in*

Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	*part to discourage cut-through truck traffic from I-40 and I-240. Vehicle Classification counts indicated that combined medium and heavy truck traffic on Farm Road, Walnut Grove Road, and Mullins Station Road comprised less than 2% of traffic in the project area with several areas having fewer than 1% trucks. The recommended design concept, coupled with proposed improvements to the I-40/240 interchange, is expected to result in similar low truck percentages on the Parkway.* C.1) There seems to be some confusion about whether or not large trucks would be allowed through the park. Large trucks will clearly add to the aquifer, floodplain, and wetlands issues, but also will substantially increase noise and air pollution issues in the park. I cannot find any information in the SFEIS about truck-related pollution (other than the small bit on construction pollution mitigation). I don't think large trucks are allowed in many other parks around the country- the same should be true here. It is up to the planners and politicians to make sure that this is the case- figure out how to get a "No trucks" policy approved. If it comes to the point where all approaches to blocking trucks have been exhausted, then the road should be designed to make it unfavorable to trucks. 11 ft wide lanes and traffic signals would assist in this strategy. It is up to our local planners and officials to get the appropriate roadway design into the plans. *On page 76 of the SFEIS in Attachment A, according to 23 CFR 658.19(a), reasonable access between National Network routes (such as nearby I-240, I-40, and US 79) and points of loading and unloading to household goods carriers, motor carriers of passengers, and other covered truck tractor/semitrailer combinations is required; therefore, since non-motorized traffic and tractor-trailer traffic will be separated in the proposed parkway, thereby making the road safer for all users, tractor-trailer traffic cannot be prohibited from using the parkway because the state cannot deny reasonable access to tractor-trailers (23 CFR 658.19(h)(ii)).* *The SFPAT made a recommendation for a lower design speed and signalized intersections for the Parkway in part to discourage cut-through truck traffic from I-40 and I-240. Vehicle Classification counts indicated that combined medium and heavy truck traffic on Farm Road, Walnut Grove Road, and Mullins Station Road comprised less than 2% of traffic in the project area with several areas having fewer than 1% trucks. The recommended design concept, coupled with proposed improvements to the I-40/240 interchange, is expected to result in similar low truck percentages on the Parkway.* *The SFPAT agreed to the recommendations for 12-foot lanes. The curvature in the roadway is included for traffic calming; however, 12-foot lanes are considered prudent for safety reasons.*

Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	D) Section 4(f) status- I strongly believe that Section 4(f) does apply. There seem to be 2 factors supporting my argument- 1) The "joint planning exception" does not apply because the park existed (in the 1970's) before the property was "formally reserved for a future transportation facility" (which did not occur until the Conservation Easement was signed and reserved space for the roadway (Jan 2007)). *The document states that Section 4(f) does apply but that the impact is* de minimis*. At the time the FEIS was signed, the project did not impact any of the contributing recreational resources inside Shelby Farms Park. A trail that was constructed in 2011 will be impacted by the project; however, that impact will also be* de minimis*. The trail will be routed under the road via tunnels to preserve the trail route, and the Section 4(f) determination will be made prior to the signing of the ROD.* *Section 4(f) applies only to those portions of such lands which function for, or are designated in the plans of the administering agency as being for, significant park, recreation, or wildlife and waterfowl refuge purposes. However, according to the conservation easement, the entire park, with the exception of those lands specifically exempted from the conservation easement, such as for the Parkway, has been set aside as recreation or parkland. These park and/or recreation lands are presumed to be significant (see 23 CFR 774.11(c)).* *The park did not exist in the 1970s. Beginning in the early 1970s, the county considered options for protecting the land (a former model penal farm) from housing and industrial development. The intention to preserve the land is best captured in the Eckbo plan, introduced to the Shelby Farms Planning board in 1975. The plan showed a future use of one area as a pastoral park, and also includes several future roads passing through the area, including a north-south road designated "Kirby Road" in the vicinity of the presently proposed Kirby Parkway. Since the county planned for this road prior to the official designation of any park areas, the joint-planning exception applies. In addition, the area reserved for the roadway does not impact areas that have been used as parkland until very recently. See Attachment E, page 4, and Figure 7 of the SFEIS (Attachment A of this document).* 2) Additionally, the statement in the SFEIS that "impact to parkland appears to be de minimis" is clearly not true given the environmental issues mentioned above and detailed by other citizens. *A "use" under Section 4(f) can be any of the following:* • *a direct use - property is permanently incorporated into the transportation project;* • *a temporary use - property is temporarily occupied in a way that is adverse to the property's*

Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	*purpose; or* • *a constructive use - occurs when "the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished." (23 CFR Section 774.15(a))* *Significant tracts of land within Shelby Farms Park are devoted to non-recreational uses, to which Section 4(f) does not apply. However, even if Shelby Farms Park is considered a Section 4(f) property as a whole, a* de minimis *finding is appropriate for the following reasons:* • *The proposed alignment of the road does not directly or constructively use any of the features and attributes that would qualify Shelby Farms Park for protection under Section 4(f). Instead, the proposed pathway passes almost exclusively through actively farmed and fallow agricultural fields and Area 10, which houses various county government buildings;* • *The alignment of Kirby Parkway has been shifted outside its contemplated corridor for the express purpose of minimizing any impacts to any features and attributes that qualify the resource for protection under Section 4(f);* • *The number of acres used for Kirby Parkway in relation to the overall acreage of the park is minimal; and* • *Development of Kirby Parkway is anticipated to enhance access to the park.* *As a result, no Section 4(f) analysis is required for this project, because even assuming the exemptions for joint planning and multiple uses do not apply, any use of Section 4(f) land is* de minimis *in light of the proposed mitigating measures associated with the proposed implementation of Kirby Parkway. TDOT is currently working with the officials with jurisdiction over the property (the SFPC) to finalize other mitigation measures to be implemented. See Appendix E of the SFEIS (Attachment A of this document) for Section 4(f) documentation.* E) Safety issues- I think that "accident problem" at Farm Road for traffic turning right onto Walnut Grove can be resolved with a proper turning lane plus an acceleration lane on Walnut Grove. It will cost much less, too. *A safety analysis was conducted for the project area in August 2006. See pages 5 and 6 of the FEIS. Your*

Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	*suggestion will be passed on to the design consultant for consideration. However, a majority of accidents are rear-end approaching the intersection from Walnut Grove Road at Farm Road and are caused by back-ups from the signalized intersection and not merging or weaving concerns.* F) There seems to be a lot of confusion and misleading information about the role and purpose of the road. On the one hand, the plan states that it is part of a "one-mile grid concept". It also states that the road is intended to help people from Bartlett get to Poplar Ave (which seems like an inefficient path to me). On the other hand, they say it is simply a road to provide increased access to the Park, and access for some neighborhoods close to the Park. But then, look at the road design, which shows a clear intent to expand to six lanes in the future. The pavement which is planned to be more than 6 lanes wide (an extra-wide shoulder), plus the free-flow interchange clearly show that the intent is to have a regional highway cut right through the Park. This is clearly in conflict with the desires of the citizens. *See page 13 of the SFEIS In Attachment A for the Project Purpose and Need Summary. There are no plans to expand the project to a six-lane facility in the near future. The SFPAT made a recommendation for a four-lane facility but did discuss that the design should not preclude the possibility of expanding to six lanes in the future if increased travel demand warranted it. The SFPAT did recommend a reinforced grass shoulder so that the footprint of the road would be reduced through Shelby Farms (see slides 12-20 of April 13, 2011 PowerPoint to SFPAT in Attachment B). The final design will follow as much as possible the conceptual drawings from the April 13, 2011 PowerPoint presentation to SFPAT.* In summary, I reject the SFEIS for numerous technical and procedural reasons and I strongly request a well-publicized public meeting plus a comment/review period of 30 subsequent days. Also, I want to make sure that TDOT, Shelby County, and Memphis planners, engineers, and others are available to assist in resolving the open issues during the ensuing days. *A public hearing for the project was held at the Shelby Farms Visitor Center on December 13, 2007. Comments from this meeting were received and addressed. The SFEIS was approved on January 30, 2012, followed by a 30-day comment period. The comment period was subsequently extended an additional 30 days at the request of the SFPC. Comments were received on this approved document and are currently being addressed. Due to public interest in the project, and since the Memphis aquifer breach was not known at the 2007 public hearing, an additional NEPA Public Hearing will be held in the fall of 2013, prior to the signing of the ROD, and comments will be received and addressed. This public hearing will be well-advertised, and public officials will be available to answer questions and discuss concerns. A 30-day*

Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	*comment period will follow the public hearing.* I have not previously focused on the bicycle and pedestrian plans related to this parkway, though I have been thinking about it. 1. I do think the roadway and intersections shown in the SFEIS are not a good design for pedestrians or bicycles. *See PowerPoint presentation in Attachment B from April 13, 2011 presentation to SFPAT. The design presented is based on concepts from the Shelby Farms Master Plan.* 2. I request the following pedestrians and bicycle-friendly changes to the design a. the bicycle and pedestrian paths should be separate since bicycles may see this route as a bit of a bicycle freeway, so Bikes and Peds should be separate from each other. *See page 14 and the Master Plan in the SFEIS (Attachment A of this document) and see Attachment B for the April 13, 2011 PowerPoint presentation. The segment of the Parkway from Mullins Station Road to Macon Road will have bicycle lanes on the roadway and separate sidewalks behind curb and gutter for pedestrians. The Parkway through Shelby Farms will utilize 13-foot-wide shared use paths. Details regarding whether the path will be striped to separate bicycles and pedestrians will be discussed with the SFPAT during final design.* b. there should be at least an 8 ft grassy buffer between the bicycle path and the paved vehicle right of way (measured from the right edge of the shoulder). *See the April 13, 2011 PowerPoint presentation in Attachment B. The exact location of the shared use path and its offset from the travelled way will be coordinated with the SFPAT during final design. It is anticipated the offset will be much more than 8 feet. Preliminary Field Review Plans showing the location of paths is included as Attachment J of this document.* c. the pedestrian path should be separated from the bike path by at least a 4 ft buffer. *Currently, the plan is to include the bicycle and pedestrian traffic on one 13-foot shared use path, which exceeds minimum width. Your suggestion will be passed on to the SFPAT.*

Dennis Lynch Concerned Citizen 901-213-6088 dmlynch@alum.mit.edu	d. traffic signal intersections should have ped/bike request buttons and countdown timer "OK to cross" indicator lights. *These features are standard for all facilities. Details will be coordinated during the SFPAT process throughout final design.* e. crosswalks should be well marked, with an enhanced paint scheme (striped or other). *Striping plans will follow established Manual of Uniform Traffic Control Devices (MUTCD) standards (http://mutcd.fhwa.dot.gov).* f. marked pedestrian crosswalks should exist in multiple locations, not just at cross streets *Pedestrian crosswalks will be placed only at locations where signalized crosswalks are provided. Grade-separated crossings with tunnels will also be provided.* g. there should be a safe waiting zone for pedestrians between N-bound and S-bound traffic (for example an elevated median, either grassy or concrete, with a curb) *The pedestrian cycle length will be sufficient to cross the entire road.* h. these points apply not only to the Parkway itself, but also to any related changes to Walnut Grove, Mullins Station, Whitten, or other. *Noted*
Mark Plumlee 901-679-4266 c 901-521-9000 w Mark@memphisflyer.com	This plan may be dangerous and needs further study and we need the facts with a chance to view them publicly. *Preliminary designs will be available for public view at an upcoming NEPA Public Hearing, to be held in the fall of 2013.*

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	The Conservation Committee of the Chickasaw Group of the Sierra Club objects to the Proposed Kirby Parkway SFEIS (dated January-February, 2012), and submits these comments in response to the SFEIS. Additionally, the Committee requests an extension of time for comments based on the following- There must be a well-publicized, full-information public meeting on the SFEIS, to be followed by a 30-day comment period. The Sierra Club will retain its objection until such time as that meeting is held and until all comments received are "properly addressed". The objection and reasons for the extension are detailed below: 1. The process was flawed (and some think the process might even have been illegal) - The "CSS process" which was intended to develop the plan jointly between the planners, engineers and citizens suffered from incomplete information. Specifically, key details about the aquifer, wetlands and floodplain were not shared with the citizens on the committee. *See page 76 of the SFEIS in Attachment A. The Sierra Club had a representative (Charlie Rond, later succeeded by Don Richardson) on the SFPAT who participated in the meetings and endorsed the Selected Alternative and the CSS recommendations as signed in the February 16, 2006 recommendation document. The aquifer issue was not brought up during the CSS process prior to the signing of the SDEIS. After the SDEIS was advertised for public comment, a study identifying the breach was published in 2008. The Project Team took proactive steps and approached the potential aquifer breach issue with heightened awareness, and the necessary recommendations to avoid, minimize, and mitigate any potential impacts including the participation of the University of Memphis Groundwater Institute in developing commitments.* *The Public Hearing was held on December 13, 2007 following approval of the SDEIS. In addition, two other Public Meetings were held on March 24, 2005 and November 11, 2005. TDOT plans to hold a NEPA Public Hearing in the fall of 2013.* 1b) Even more, in this current period where the public should have the opportunity for review and comment, there has been virtually no effort to inform the public about the SFEIS, or about the comment period. There was no public forum to present and review the "final plan". There was very limited advertising or public notice of the availability of the SFEIS for review. The SFEIS was only available in a limited number of locations, and was only put online after citizens insisted that it be put online. It appears that the planners want the comment period to pass by quietly without issue, so that the plan can be considered approved, and so that the plan can proceed. *The original public notice for review of the approved SFEIS was put in the Commercial Appeal, the Tri-State*

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	*Defender, and La Prensa on Thursday, March 1, 2012. The public notice stated that the SFEIS was available on the project Web site and that copies of the SFEIS were located at the Shelby Farms Park Visitor Center (500 North Pine Lake Drive), Memphis-Shelby County Public Library and Information Center (3030 Poplar Avenue), Memphis-Shelby County Public Library Cordova Branch (8457 Trinity Road), and University of Memphis Library-Government Publications Department (University of Memphis, 126 Ned R. McWherter Library). At the request of the SFPC, the comment period for the SFEIS was extended until Tuesday, April 26, 2012; a public notice of this extension was put on the project Web site (http://www.tdot.state.tn.us/kirbyparkway/library.shtml). The project has engaged the public throughout the entire process.* *The comment period for this project has been well-advertised and made available online from the beginning of the comment period without prejudice. An additional NEPA Public Hearing will be held in the fall of 2013. The SFEIS and supporting documentation Is available on TDOT's Web site. Final design plans will not begin until the environmental process is complete. TDOT will hold a design meeting with the public at a later date as design progresses.* 1c) It is also important to note that the SFEIS is "Supplemental" to the original FEIS which was dated August, 1991- over 20 years ago. So much has changed over the 20+ years that a completely new EIS would seem to be a more rational and technically accurate approach. It is also important to note that the SFEIS itself states that it is a supplement to the FEIS and to 2 other documents- the "Draft Supplemental Environmental Impact Statement" (October 2007), and the "Environmental Reevaluation" (March 2001). However, none of these documents is available for public review. How can anyone evaluate a plan into when it is merely a supplement to 3 other documents? *Since the SFEIS was not intended to replace or reconsider the information presented in the aforementioned documents, a supplement was prepared. The purpose of the SFEIS is to apply information to the project that has arisen since a previous document was prepared.* *The SDEIS was advertised for public comment after FHWA and TDOT had signed the document in October 2007. An additional NEPA Public Hearing will be held in the fall of 2013. The 1991 FEIS, the 1991 ROD, and 2001 Reevaluation are available on the Project Library page of the project Web site http://www.tdot.state.tn.us/kirbyparkway/library.shtml).* 2. There are significant open questions about the environment.

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	2a) Construction of the roadway and especially of the planned interchange at Walnut Grove may increase leaching from the Shelby County Landfill into the aquifer, the source of Memphis' "best in the world" public water. The Project Summary of the SFEIS initially states that "The project is not expected to impact the Memphis aquifer." Yet further on in the Summary, it talks about "total containment procedures" that will be taken if there are any "spills of hazardous or chemical materials." Regarding daily runoff, the SFEIS states that "All discharge from the proposed road will be discharged ... downstream on the Wolf River". This then becomes a risk issue for the Wolf River. The SFEIS has no discussion of how the project will protect the aquifer during construction. We understand that leaching is already at a high level. *See pages viii and ix of the SFEIS in Attachment A. There are no impacts to leachate from the landfill on this project. No cuts from construction will occur. See page 79 of the SFEIS in Attachment A; the SFPAT on January 11, 2006 wanted to have the proposed parkway as far west as possible to avoid any impacts to the park area. In addition, this alternative avoids impacts to the potential breach of the aquifer. The preliminary design of the interchange at Walnut Grove Road includes the construction of detention ponds within the interchange, which will slow the conveyance of stormwater from the road. The stormwater runoff should not affect the aquifer because the water will be forced to flow past the area of concern and into the Wolf River. The grades on Walnut Grove and the Parkway were set so that the southern part of the project would only involve fill and have minimal excavation in that area, thus protecting the aquifer during construction. Studies were performed regarding the landfill and associated risks. The SFPAT chose to refine the Selected Alternative to ensure that the landfill is not impacted.* *Runoff to the Wolf River will be the same area draining there now, which will not present a risk to the river. The total containment policy involves the construction of basins to contain any spill of up to 10,000 gallons (a typical gasoline tanker truck holds approximately 8,800 gallons) of hazardous material along the Parkway before it reaches the river or has the opportunity to leach into the aquifer. The intention is to contain the spill in the basin so it can be cleaned up quickly in one place. This measure will reduce potential runoff from the road to the potential aquifer breach. The majority of the new parkway construction is downstream of the identified breach area. TDOT and the city of Memphis have and will continue to work with the Groundwater Institute on ideas for mitigation. FHWA and the city of Memphis will work with their design consultant to determine how far downstream runoff can be discharged in an economically practical way. Guidelines in TDOT's Drainage Manual are used for all design projects in Tennessee (http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm). Standard practice is to connect drainage outfalls with the same channels they are currently using as much as is practical. All drainage outfalls on this project will reach their current outfall channel before reaching the*

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	*Wolf River.* 2b) The plan will admittedly impact the floodplain and some of the wetlands. After last year's flooding, it seems unconscionable that the planners would continue with the current proposal until they had a better understanding of the risk. The SFEIS states "If at all possible, avoidance of floodplains should take place." The SFEIS also states that certain steps should be taken to minimize impacts to the floodplain, but there is none. But even with the above SFEIS statements, the plan calls for the road to be built across 13.6 acres of floodplain. Obviously, there will be some impact. *See page 54 of the SFEIS. Minimal clearing of trees and vegetation cover within the floodplains and zero-bank clearing at streams would reduce floodplain and water quality impacts. Every action will be executed to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains. It is anticipated that 14.5 acres of floodplain will be impacted, according to updated information.* *The project will not result in a significant increase in flooding in the Wolf River floodplain. The guidelines of FEMA's National Flood Insurance Program (42 USC 50) will be met. They will also be consistent with requirements of floodplain management guidelines for implementing Executive Order 11988 and FHWA guidelines in 23 CFR 650A. Any hydraulic structures will be sized according to TDOT's policies in the TDOT Drainage Manual (http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm) or the TDOT Design Procedures for Hydraulic Structures (http://www.tdot.state.tn.us/chief_engineer/assistant_engineer_design/structures/thmall.pdf) during the design phase of the project. Structures will be sized to pass the appropriate flood flows in a riverine environment, and the floodplain connection will be maintained with three box culverts for flow equalization purposes. Water surface elevations are specified in hundredths of a foot, so an accurate numerical estimation cannot be provided until the hydraulic design is complete.* *See page 79 of the SFEIS in Attachment A. On January 11, 2006, the SFPAT wanted to have the proposed parkway as far west as possible to avoid any impacts to the park area. In addition, this alternative avoids impacts to the potential breach of the aquifer. The preliminary design of the interchange at Walnut Grove Road includes the construction of detention ponds within the interchange, which will slow the conveyance of stormwater from the road. The stormwater runoff should not affect the aquifer because the water will be*

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	*forced to flow past the area of concern and into the Wolf River.* 2c) The plan endangers houses in the neighborhood adjacent to Humphreys Blvd. Some of these houses had problems in last year's flooding, and this could be made worse by the planned roadway. Martha Waldron, a resident of that neighborhood, has sent a letter on behalf of many residents in the neighborhood stating their objection to the plan. That letter is attached to this email. *Drainage will be studied during final design to ensure that the new Parkway construction will not adversely affect conditions during large rain events. The project will not result in a significant increase in flooding in the Wolf River floodplain. The guidelines of the FEMA National Flood Insurance Program will be met with no fill being placed in the Wolf River regulatory floodway, and the floodplain access to the east side of the proposed Kirby Whitten Pkwy will be maintained with three box culverts whose heights will be extended upward approaching or above the flood elevation of 253 shown on the FEMA Flood Insurance Rate Map (FIRM) for Shelby County for flow equalization purposes. See Attachment H for the FIRM.* 2d) There is mention that more studies of these issues are needed. Some may even be underway, but we have been unable to find out any specifics related to their status. *At this time, no further environmental studies are being conducted; however, detailed design studies are underway.* 3. It is unclear why such an expensive interchange w/ overpass is needed. There are busier intersections in the Memphis area (Germantown Rd at Wolf River Blvd, for example) that are built with a less expensive and less obtrusive design. The plan doesn't even tell how expensive the interchange would be. Also, it is not clear that such an interchange is needed given the expected traffic volume. Finally, the height of the interchange will create a visual obstruction right at the park's gateway- not a very attractive entrance to a park which should be a crown jewel. *The SFPAT reviewed traffic forecasts, turning movements, renderings, costs, impacts, and traffic simulations in the recommendation of the preferred interchange. Every effort was made to reduce the footprint and height of the interchange. Details regarding the materials and final configuration of the interchange will be coordinated during final design with the SFPAT.* 3b) There are experts in road and park planning who say that there is an alternative location that should

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	certainly be thoroughly investigated. The conceptual plan for the road moved as far west as possible, but that was before problems with aquifer, wetlands and floodplains were identified. These problems have made the present planned location possibly the worst site imaginable. By moving the roadway further east- by the smallest distance possible- the road would avoid the trio of serious problems discussed above. We hope that a new location could eliminate issues regarding our precious drinking water supply, our already endangered floodplain, and the flow of contaminants from the adjacent landfill. In all likelihood, it would cost very much less to build than would the present proposal. We must insist that there be a thorough study of this alternative before any final hasty decisions are made. *See Attachment G for the SFPAT recommendations. Members of the SFPAT, which included members from the Sierra Club, preferred the alternative that provided the least impact to the areas being managed by the SFPC. The Selected Alternative Q does not impact recreational features in Shelby Farms Park. The aquifer covers a large area, much greater than the project area, and not all breaches in the aquifer are known. By moving the proposed road east, impacts to the aquifer may not be avoided, and recreational impacts would most likely occur.* 4. There is a concern among some of us that there is not sufficient traffic demand even to warrant the road, much less an expensive "free flow" interchange like the one planned. Quoting Wikipedia, "Grade-separated junctions are very space-intensive, complicated, and costly, due to the need for large physical structures such as tunnels, ramps, and bridges. Their height can be obtrusive, and this, combined with the large traffic volumes that grade-separated roads attract, tends to make them unpopular to nearby landowners and residents..." *The SFPAT reviewed traffic forecasts, turning movements, renderings, costs, impacts, and traffic simulations in the recommendation of the preferred interchange. Alternatives were developed by traffic engineering experts from Palmer Engineering, Shelby County, and the city of Memphis, and analysis was provided for the SFPAT's recommendation. The selection was not easy and extensive efforts were made to reduce the footprint and height of the interchange. Details regarding the materials and final configuration of the interchange will be coordinated during final design with the SFPAT.* *Wikipedia is a general knowledge source that provides information on a broad scale. For this project, Shelby County employed Palmer Engineering to apply their expertise in traffic analysis and examine multiple alternatives to provide options that provided the best methods of traffic flow in a complex location. Multiple alternatives were considered by the SFPAT before narrowing down to two final schemes labeled as*

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	*Alternatives L and M. Travel times were used to compare these alternatives and give the SFPAT information with which to make a recommendation. In addition, traffic simulations were developed and presented to the Team to help in understanding how each alternative functioned.* *Attachment N of this document shows a comparison of traffic analysis done during the CSS process using the 2005 forecasts (2026 design year) as compared to revised analysis using updated 2012 forecasts (2040 design year). Alternatives L and Q are scenarios with a trumpet interchange as ultimately recommended. Alternatives M and R utilized a two-phase signalized intersection with a fly-over ramp provided for eastbound to northbound movements.* *Synchro traffic simulations were prepared and travel times were compared for both northbound and southbound movements between Humphreys Blvd and Macon Road. The nodes are Humphreys Boulevard (1), Walnut Grove Road Interchange (2), Sycamore View Road/Park Entrance (3), Mullins Station Road (4), and Macon Road (5).* *Traffic circles, or roundabouts, were considered by the SFPAT at Mullins Station Road but ultimately not recommended. In general terms, circulating volume in a roundabout requires one lane for 0-1,400 vehicles per hour, two lanes for 1,400-2,000 vehicles per hour, and three lanes for 2,200-2,900 vehicles per hour. As shown in Attachment O, the circulating volumes forecasted for this location would exceed 4,000 vehicles per hour in both the AM and PM peak hours. Construction of a roundabout with more than three circulating lanes would be unprecedented in Tennessee and would require considerable driver education as well as more lane-widening outside of the roundabout to handle the exiting traffic safely. The heavy left turn movement (1,846 vph in PM) from eastbound Walnut Grove Road to northbound Shelby Farms Parkway requires utilizing three-quarters of the roundabout and mixing with through traffic on Walnut Grove Road in both directions, which greatly increases circulating volumes and makes the roundabout unfeasible.* *A fully at-grade intersection was discussed by the SFPAT but quickly dismissed as a potential alternative due to the traffic volumes involved. For the purposes of responding to these comments, traffic analyses were performed on an at-grade, signalized intersection utilizing dual left-turn lanes. Attachment P shows the comparison of delay times in seconds and Highway Capacity Software Levels of Service for Alternative R, which utilized a two-phase signal and a flyover ramp for the eastbound Walnut Grove Road to northbound Shelby Farms Parkway movement. Alternative Q is a fully free-flow interchange and therefore does not have any intersection delay. The second chart in Attachment P provides delays, levels of service, queue lengths, and travel times for a fully at-grade intersection using the updated 2012 traffic forecasts for design year*

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	*2040. An at-grade intersection increases travel times as much as eight minutes or more than doubles the travel times. Intersection delays also increase by anywhere from 75 seconds to 110 seconds (Level of Service F) as compared to Alternative R. Queue lengths backing up from the intersection would be expected to reach as much as 5,000 feet.* 4b) There is a concern that there is not (and will not be) enough traffic to justify the road at all. One of our members has attempted to dig into the details of the traffic forecasts to be able to confirm or deny the forecasts, but has found a nearly impenetrable wall. Initial requests were ignored. Then, there was this response- "When the public comment period closes the Local Government and TDOT will respond to all comments received. It is not our policy to piece meal those responses." Finally a tiny bit of information was sent, but it was not nearly enough to effectively evaluate the forecasts. It appears that the planners don't want anyone questioning their forecasts- this leaves us concerned that the forecast is not supportable. *As shown in Attachment D, the forecasted daily trips for the proposed Parkway from the 2005 forecasts used by the SFPAT ranged from 32,700 ADT near Walnut Grove Road to 13,600 ADT near Macon Road in the design year 2026. The 2012 forecasts developed for use in final design for the project increase to 37,400 ADT near Walnut Grove to 24,400 ADT near Macon Rd in the updated design year 2040. See Attachment M for updated 2012 forecasts.* *Further data is available through the Memphis MPO. Their Web site is www.memphismpo.org, and the point of contact is Pragati Srivastava, Administrator, at (901) 576-7190. The Memphis MPO model is described in Chapter 9 and Appendix G of the LRTP in (Attachment L of this document).* *See the two PowerPoint presentations shown to the SFPAT in April and August 2005 in Attachment K, and see the new 2012 traffic numbers in Attachment M. These PowerPoint presentations described the process of developing traffic forecasts using the Memphis MPO model and the results of those forecasts. The SFPAT used the data to select design criteria such as number of lanes, design speed, and intersection/interchange types. The volumes were developed using the Memphis MPO TransCAD model, and travel time data and vehicle turning movement counts were gathered in the field. The Memphis MPO Model was refined in the study area to replicate the existing volumes and provide a calibrated model for the future year projections. The turning movement counts were gathered over a 12-hour period and used to refine the model output. Travel time data was gathered by the Project Team for calibration of the microsimulation during the AM and PM peak hours.* 4c) Two small examples of the issues with the forecast are 1) that the Build and No-Build alternatives in the

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	SFEIS show the exact same traffic volumes for Farm Rd in the 2030 plan year. (18,290 ADT- pg 48, Table 4.3. Average Daily Traffic (ADT) and project Vehicle Miles Traveled (Daily VMT)). If the forecasting models don't properly handle Farm Rd, what other aspects of the forecast are mishandled? 2) The second example issue with the forecast is that in the Appendix of the 2040 LRTP (Appendix_G_TDM_Final), there were no travel time studies done to calibrate the forecasting model in the vicinity of the Park (Figure 1, pg G-45). This includes Walnut Grove Rd, Farm Rd, Germantown Rd, Mullins Station Rd, Kirby Whitten Rd, etc etc. The only calibrating travel time studies done anywhere near the Park are I-40 from Germantown Rd to I-240, and the I-240 loop. *The 2010 and 2030 Build ADTs for Farm Road (Table 4.3) on the Air Quality table on page 48 are erroneous and will be corrected. The previous 2004 model did not have a link for residual traffic on Farm Road. The most current model has a link and the new forecast shows residual traffic of 1,200 ADT on Farm Road, which will be used to update the Air Quality analysis. These are not the forecasted volumes used in choosing the Selected Alternative. Traffic on Farm Road will be reduced significantly in the Build condition. This error on Farm Road was only limited to the Air Quality table and not the decision-making process for the project.* *The Memphis MPO model was used in developing traffic forecasts. Forecasts were then compared to current traffic counts and adjustments were made to the sub-area model. Multiple alternative schemes were modeled that reflect different forecasts depending on number of through lanes, design speed, intersection/interchange type, etc. As more lanes were added to the Parkway and impedance was reduced through higher design speeds and more free-flowing intersections, the anticipated traffic volumes increased. With a grid of alternative routes including I-240, I-40, Appling Road, Sycamore View Road, Walnut Grove Road, Macon Road, Mullins Station Road, Germantown Road, etc., the new Parkway provided anticipated capacity from the other roads as speeds and capacity increased and impedance was reduced. For that reason, the SFPAT made a recommendation for what they considered to be an appropriate combination of elements, including utilizing four lanes as opposed to the previously proposed six. This was a much-discussed topic and the Team reached consensus on one configuration that has been carried forward.* *Further data is available through the Memphis MPO. Their Web site is www.memphismpo.org, and the point of contact is Pragati Srivastava, Administrator, at (901) 576-7190. The Memphis MPO model is described in Chapter 9 and Appendix G of the LRTP (Attachment L of this document).* 5. As stated above, there are expense concerns about the roadway itself, as well as about the interchange. At this time of tight budget concerns, is this the best expenditure of Memphis citizen's funds? Or the funds

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	of the City of Memphis, or Shelby County for that matter? Unfortunately, the SFEIS does not give any cost estimate for the roadway or interchange, not even in a range. Additionally, there isn't any type of cost-benefit analysis, or any ranking comparison to other potential road projects. *Due to the subjective nature of the calculation of benefit/cost ratios, TDOT does not have a policy of developing benefit/cost ratios to justify these types of projects. Cost estimates for the Parkway and the two final interchange types were presented to the Team while developing their recommendations. The purpose and need refers to accidents and capacity as justification. Projects are prioritized based on available funding.* *The most recent planning level cost estimates developed for the project in 2008 estimate the interchange to be approximately $7.8 million of the total project cost of $23.8 million.* *The SFPAT reviewed traffic forecasts, turning movements, renderings, costs, impacts, and traffic simulations in the recommendation of the preferred interchange. The selection was not easy and every effort was made to reduce the footprint and height of the interchange. Details regarding the materials and final configuration of the interchange will be coordinated during final design with the SFPAT.* 6. The SFEIS states that "Section 4(f) does not apply to this project..." However, we disagree with that statement, on two accounts. First, the joint planning exception does not apply because the park existed (though under a different name) before the property was "formally reserved for a future transportation facility". Shelby Farms was opened for recreational purposes in the 1970s. But, formal reservation of the property for the road did not occur until later-- some would say this occurred with the 1991 FEIS, while others would say simply planning for a roadway is not a "formal reservation for a future transportation facility", which did not occur until the Conservancy Easement was signed (January 2007) and reserved space for the roadway. Second, we strongly disagree with the statement in the SFEIS that the "impact to parkland appears to be de minimis", based on the points made above. *The document states that Section 4(f) does apply, but that the impact is* de minimis*. The project does not impact any of the contributing recreational resources inside Shelby Farms Park. Section 4(f) applies only to those portions of such lands which function for, or are designated in the plans of the administering agency as being for, significant park, recreation, or wildlife and waterfowl refuge purposes. However, according to the conservation easement, the entire park, with the exception of those lands specifically exempted from the conservation easement, such as for the Parkway, has been set aside as recreation or parkland. These park*

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	*and or recreation lands are presumed to be significant (see 23 CFR 774.11(c)).* *The park did not exist in the 1970's. Maps of Shelby Farms from 1975 show the roadway and therefore the "joint planning exception" does apply. The area reserved for the roadway do not impact areas that have been utilized as parkland until very recently. See page 4, Appendix E, and Figure 7 of the SFEIS (Attachment A of this document).* 7. Safety issues: Assumptions were made about the causes of collisions without looking at the details in the actual data. 7a) One of the major accident problems is Farm Road traffic turning right onto Walnut Grove- the turning traffic which is moving slowly has to weave into fast-moving westbound traffic. This could be fixed by simply improving the Farm Road turning lane and creating an acceleration/merge lane on Walnut Grove- much less expensively than building an additional road. *Noted. Your suggestion will be passed on to the design consultant for consideration. However, a majority of accidents are rear-end approaching the intersection from Walnut Grove Road at Farm Road and are caused by back-ups from the signalized intersection and not merging or weaving concerns.* 7b) The trumpet interchange being much closer to Humphreys Blvd will also create accident problems for all of the traffic which turns left onto Humphreys Blvd. It is not clear whether the new road's design addresses this traffic flow- It appears that it will create a highly dangerous zone with so many lanes weaving across each other at high speeds in a very short space at this exit. A signalized intersection rather than the "trumpet" would have less safety concerns. *See Attachment I for weaving graphics. The trumpet interchange will have fewer accidents than a signalized intersection due to a decrease in conflict points. Southbound Parkway traffic that is ultimately turning left at Humphreys Boulevard will not merge with Walnut Grove Road traffic. It will be taken directly to the westbound off-ramp to reduce the weave. The southbound traffic that passes through at Humphreys Boulevard will only weave with traffic travelling westbound on Walnut Grove that is exiting to Humphreys Boulevard. This configuration was arrived at through considerable discussion and study during the CSS process with the SFPAT. Dr. Marty Lipinski of the University of Memphis is a member of the SFPAT and spoke to the group regarding safety concerns with the intersection.* 7c) There is also a safety problem with the Parkway and trumpet interchange adding more high speed

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	westbound traffic to the high sloping Wolf River Bridge. This high slope totally hides the traffic signal on the other side where traffic backs up in order to turn left into Baptist Hospital or turn right into Christian Brothers High School. This could cause major collisions if the traffic achieves high speeds before cresting the top of the bridge. *The crest vertical curve designed for the Wolf River Bridge was designed to meet sight distance requirements for the 45 mph design speed of that project. That project has been posted with a 45 mph speed limit. It is not anticipated that traffic will travel any faster over the bridge when this project is completed than they do today.* As a result of all of these factors, the Conservation Committee of the Chickasaw Council of the Sierra Club submits these comments to the SFEIS, objects to the SFEIS, and strongly requests an extension of time for comments based on the following- There must be a well-publicized, full-information public meeting on the SFEIS, to be followed by a 30-day comment period. The Sierra Club will retain its objection until such time as that meeting is held and until all concerns documented here plus any other comments submitted are "properly addressed". Additionally, we request that TDOT, Shelby County, and Memphis make appropriate planners, engineers, and others available as needed to assist in obtaining these resolutions. *At the request of SFPC, the comment period for the SFEIS was extended until Tuesday, April 26, 2012; a public notice of this extension was put on the project Web site (http://www.tdot.state.tn.us/kirbyparkway/library.shtml). A well-advertised NEPA Public Hearing will be held in the fall of 2013, followed by a 30-day comment period.* *On October 17, 2007, TDOT submitted an updated, approved version of the SDEIS to the Sierra Club for additional comment. The Sierra Club submitted comments on December 17, 2007, to which Shelby County responded on April 30, 2008. The response is included in the SFEIS on pages 83 and 84. The SFEIS has not yet been distributed to the Sierra Club for comment.* There are a number of additional problems with the SFEIS that either inadequately address issues of concern or distort previous assumptions. The project has been continually misnamed. The CSS committee repeatedly requested and received approval that the project is referred to as Shelby Farms Parkway. It appears that this was ignored and morphed into a larger vision to build a N/S county-wide project, the Kirby-Whitten project which has

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	designs on crossing the Wolf River, the Birch area and the Park from Kirby at Humphrey. Why was the CSS request ignored? *The name of the project, Kirby Parkway, was used for consistency purposes throughout the project development since this is a Supplemental EIS to the original document that referred to the road as the Kirby Parkway, even though the SFPAT requested to have a different name for the completed project. The project has always been a part of the overall Kirby-Whitten corridor. The city of Memphis will be responsible for naming the roadway once construction has been completed. In June 2012, the SFPAT unanimously recommended naming the road the Shelby Farms Parkway from Walnut Grove Road to Macon Road. The proposed 2014-2017 Memphis MPO TIP refers to the project as the Kirby/Whitten Parkway (Shelby Farms Parkway).* This purpose is in direct conflict with the CSS team's wishes. The mission was to serve residents, local to the area around the park. This purpose was hijacked and misaligned. The CSS disapproved of the purpose: Commuter Connector Across a Park. This mission creep is counter to the avowed purpose of the Citizen CSS Committee. During the CSS process it was decided that the purpose would NOT be for commuter traffic between I40 and Poplar and not to encourage traffic inducing behavior from Bartlett, Raleigh, and Germantown to use the Parkway as a connector. *The purpose and need for the Kirby Parkway project have been documented in several transportation studies. They have been consistent throughout the process, and for than three decades, Memphis regional transportation plans have included a north-south connection in the vicinity of Shelby Farms. One of the project goals is to reduce corridor congestion, and by reducing corridor congestion, access to the park will become more efficient for its users.* Reasonable alternatives were not explored: 1. No Build Option-using the freeways and some slight improvements to current roads. See ** on page 66. *The No-Build Option is considered in the SFEIS. The SFPAT was tasked with developing a build option that would be compared to the No-Build Option in the SFEIS. The city of Memphis and TDOT identified Alternative Q as the Selected Alternative.* 2. Refused to look at end points-it was dictated to the CSS group that the road must connect through the park to Whitten at Mullins Station. Other alternatives were squashed and not allowed. Example: intersect

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	at Sycamore View, and then use the 6 lane Macon to reach Whitten. This would have only required approximately 1/2 mile extension of Sycamore View to WG along the east end of the field at the scrub tree line. Less expensive, very little prime parkland used, less travel time across the park, etc. *The SFPAT was given a study area that encompassed the Walnut Grove area between the Humphreys Boulevard interchange and the Farm Road intersection on the south and connected to the Whitten Road corridor to the north. This was done to provide continuity with the Whitten Road corridor. Connecting to Sycamore View Road instead of Whitten Road was suggested and discussed but the Team did not pursue that option since the Whitten Road corridor had more traffic generators north of I-40 and made for a more viable corridor.* 3. All "alternatives" are renditions of the same-thru the park design. L, M, N are only "intersect" alternatives at WG. *Alternatives L, M, and Q were developed after careful consideration of all reasonable alternatives that had been examined in the original FEIS and Reevaluation. The previously-examined alternatives cross through the park, and some impacted recreational features in the park, which Alternative Q does not. The SFPAT preferred the far west alternative to minimize impacts to recreational features in the park and use as much of Area 10 as possible.* 4. No outside the park option explored. *The Kirby Parkway project has been through thirty years of project reevaluations, studies, and public debates all while maintaining its high-priority status in the East Memphis area. The design has varied over the years to meet the needs of the project and to include the most environmentally, socially, and economically sound plans. The purpose and need of this project have been described in the four main objectives:* *1. To improve system linkages by providing a new north-south connection;* *2. To accommodate growth in east Memphis;* *3. To improve or reduce travel time and delays on existing routes; and* *4. To improve overall safety.* *These purpose and need objectives have been validated and reconfirmed by the public and the SFPAT at numerous points during project development and public involvement activities (see Section V of the SFEIS). In addition, the SFPAT reached a consensus on additional Partnership Goals to be pursued in conjunction*

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	*with the project design criteria. These goals were also utilized in the consideration of alternatives:* ***PARTNERSHIP GOALS*** • ***Create a road that enhances and embraces the park*** • ***Create a design concept that is socially, economically, and environmentally responsible*** • ***Create a safe and effective roadway design*** • ***Reduce corridor congestion*** • ***Produce an excellent design that enhances the quality of life in the community*** • ***Create the opportunity for non-vehicular traffic to enter and use the park*** • ***Create the opportunity for vehicular and non-vehicular crossing of the corridor including access for the physically challenged*** *Since the approval of the Reevaluation in 2001, a considerable number of changes have occurred to warrant additional study concerning the construction of Kirby Parkway through Shelby Farms. In 2005, a committee consisting of the general public, local officials, and state and federal agencies was formed in order to establish the status of Kirby Parkway. In 2006, following the CSS process, this group developed and came to a consensus on the Parkway alternatives. For nearly one year, information about the project area, the needs and wants of the community, and the environmental constraints of the area were gathered to evolve several previously designed alternatives into three new alternatives as described in this SFEIS: L, M, and Q.* *The SFPAT reviewed traffic projections to recommend four lanes with a landscaped median. The Team agreed that access to Walnut Grove Road from Kirby Parkway required a grade-separated interchange to eliminate conditions caused by the intersection of Pine Lake Road and Walnut Grove Road. They also agreed that Kirby Parkway should not be designated as a through truck route. The SFPAT then established a study corridor and some preliminary alignments by addressing the project area benefits and constraints. As environmental impacts or design information was received, the alternatives were retained for future study or dismissed from further consideration because they did not satisfy the purpose and need.* *Each of the reasonable alternatives subjected to detailed examination and documented in the original FEIS (1991) were considered to accomplish the project purpose and need objectives to varying degrees and were considered candidates for selection; however, noteworthy changes to the alternatives examined since circulation of the original FEIS have occurred, hence the need for the SFEIS. The Selected Alternative has been altered after careful consideration of all reasonable alternatives, including the assessment of their potential environmental impacts (social, economic, and environmental), project costs, and the evaluation of*

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	*public and agency comments stemming from the extensive project coordination and public involvement/public hearing process.* **Need-Not Necessary: I40--I240 can be used for commuter traffic. Flow has been greatly enhanced, especially in the afternoon due to a dedicated on ramp lane at WG/I240 and a double on ramp at I240/I40. Similar improvements are underway for the morning traffic. *Planned improvements for I-40 and I-240 were anticipated in the design of this project and the identification of the Selected Alternative. Some of those improvements have been constructed. In addition, MPO projections included enhancements to I-40/240.* **The current roads with a few enhancements would serve this population well. Example: Right and left hand turn lanes at Farm and Mullins Station. Lengthening the turn lanes at Farm and Walnut Grove to get the traffic out of the travel through lanes. *Noted. Your suggestion will be passed on to the design consultant for consideration.* There was an Inadequate Cost-Effective Analysis. We request one be done to determine if it is worth the huge expenditure for locals to cross the park. The Trumpet Interchange is not necessary. The currently proposed interchange was justified with the flimsy logic that if there were 1 accident at a light on WG, all the members of the CSS committee would be responsible. If this were true, all lights would need interchanges. This fear tactic was inappropriate. In fact the # of cars turning left from a parkway onto WG is minimal and would not require much time or could even be controlled for minimum effect. *The SFPAT reviewed traffic forecasts, turning movements, renderings, costs, impacts, and traffic simulations in the recommendation of the preferred interchange. The selection was not easy and every effort was made to reduce the footprint and height of the interchange. The trumpet interchange will have fewer accidents than a signalized intersection due to a decrease in conflict points. This configuration was arrived at through considerable discussion and study during the CSS process with the SFPAT. Dr. Marty Lipinski of the University of Memphis is a member of the SFPAT and spoke to the group regarding safety concerns with the intersection.*

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	This project creates traffic inducing Air Quality Pollution. The amount of additional traffic drawn to use the park would increase air pollution. We request studies to show that and resulting effects. Other "improvements" that are to accompany this project including widening WG, Mullins Station, and Whitten are sprawl oriented and negatively affect air quality. We request a new analysis be done showing the effects of this whole "widened" system. *See page 41 of the SFEIS in Attachment A. According to the calculated existing microscale emissions of carbon monoxide, the maximum carbon monoxide concentrations in 2005 were 9.9 parts per million (ppm) for one-hour concentrations and 6.8 ppm for eight-hour concentrations. The maximum CO concentrations for 2026 are 8.0 ppm for one-hour concentrations and 5.4 ppm for eight-hour concentrations. The maximum CO concentrations for 2030 are 8.1 for one-hour concentrations and 5.5 ppm for eight-hour concentrations. The analysis shows that carbon monoxide concentrations for all receptors analyzed are below the one-hour standard of 35.0 ppm and the eight-hour standard of 9.0 ppm. The Memphis MPO models all projects included in the LRTP (including the Parkway) to determine attainment.* There are too many unaddressed risks and unresolved vulnerabilities of the landfill, aquifer, floodplain, wetlands, and the Wolf River. The FSEIS does an inadequate job of assuring the public that damage won't be done and mechanisms to mitigate effects. The comparison to Mammoth is an inadequate shot in the dark. ***Wetlands, Streams, and Floodplains*** *See page viii of the SFEIS in Attachment A. The provisions of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the authorization by the United States Environmental Protection Agency (USEPA) under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.) and the Water Quality Act of 1987, P.L. 100-4 establishes the permits required prior to project initiation. The conditions of these permits shall be fully enforced during construction to minimize adverse impacts to the water quality of surface streams and groundwater in the project corridor. If concurrence is needed, the Memphis USACE District Hydraulics and Hydrology Branch would need to review the road profiles and hydraulic model to provide a more detailed review of the expected effect on the flowlines or assess the likelihood of increased scour at the Walnut Grove Road Bridge as a result of this project. Water normally carried by the ditches and streams within the Shelby Farms area should be handled by a provision of culverts through the proposed parkway.* *Executive Order 11990, Protection of Wetlands, provides guidelines to avoid wetlands where possible and*

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	*minimize contact with them where total avoidance is not feasible. Federal resources management agencies (e.g., Natural Resources Conservation Service (NRCS) and US Fish and Wildlife Service (USFWS)) also recommend impact minimization measures as the BMPs. Mitigation measures and BMPs are proposed during highway construction to avoid, minimize, or mitigate impacts to jurisdictional wetlands caused by any of the alternatives. These measures may include avoidance and minimization through roadway design modifications and mitigation through wetland banking. A combination of measures to mitigate for wetland losses and changes in functions and values will be employed. Selection of BMPs or mitigation measures is influenced primarily by functional values, wetland type, or objectives.* *Detailed wetland studies and delineation will take place prior to the Section 404/401 permitting. For DA permits, each crossing of a water of the U.S. is typically considered a single and complete project; therefore, each crossing/impact site should be specified as just part of a permit application. Mitigation monitoring plans will be approved by permitting agencies, and will be included with the wetland mitigation plan. If at all possible, avoidance of floodplains should take place. If this is not feasible, construction limits will be minimized and BMPs will be utilized. During or following high precipitation, limited activity should occur; work near streams shall be conducted during low-flow periods to minimize disturbance. Wetland, stream, and floodplain impacts are discussed in Section IV.C on pages 52-54 in the SFEIS in Attachment A.* ***Aquifer*** *A breach, or paleochannel, has been identified in the Memphis aquifer, a prolific aquifer that provides water to people throughout the Tennessee-Mississippi-Arkansas region, north of the closed landfill at Shelby Farms. Additional information about the Memphis aquifer is located in Section IV.N and Appendix H of the SFEIS (Attachment A of this document). The commitments regarding the aquifer are summarized below.* *A total-containment policy will be adopted for any spills of hazardous or chemical materials on the road crossing Shelby Farms. The city of Memphis has committed to employ appropriate measures to capture oil and grit that might otherwise find their way into the aquifer through the window. Prompt response to such an incident and thoroughly cleaning the spill site, including the soil, should result in no spill products reaching the Memphis aquifer. An example of a total-containment method used along Interstate 65 near Mammoth Cave in Barren County, Kentucky, is featured in Appendix H of the SFEIS (Attachment A of this document). Mammoth Cave is an underground resource that feeds groundwater resources. The city of Memphis has committed to including appropriate mitigation measures for managing the runoff from hazardous spill incidents as an element of the construction of the project and will maintain total containment methods following construction.*

Scott Banbury Conservation Committee Chair Chickasaw Group, Tennessee Chapter Sierra Club smbanbury@gmail.com	*A monitoring program will be initiated to evaluate the down-gradient extent of a potential leachate plume, its direction of migration, and the impacts of decomposition and dilution on leachate contaminants. This process would involve periodic sampling of the existing well network. This information should serve well to evaluate the potential for any spill contents to reach water supplies. The University of Memphis Groundwater Institute participated in developing commitments for this project and will be involved as design progresses.* *FHWA and the city of Memphis will work with their design consultant to determine how far downstream runoff can be discharged in an economically practical way. Guidelines in TDOT's Drainage Manual are used for all design projects in Tennessee (*http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm*). Standard practice is to connect drainage outfalls with the same channels they are currently using as much as is practical. All drainage outfalls on this project will reach their current outfall channel before reaching the Wolf River.* *See page 54 of the SFEIS. Minimal clearing of trees and vegetation cover within the floodplains and zero-bank clearing at streams would reduce floodplain and water quality impacts. Every action will be executed to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains.* *The project will not result in a significant increase in flooding in the Wolf River floodplain. The guidelines of FEMA's National Flood Insurance Program (42 USC 50) will be met. They will also be consistent with requirements of floodplain management guidelines for implementing Executive Order 11988 and FHWA guidelines in 23 CFR 650A. Any hydraulic structures will be sized according to TDOT's policies in the TDOT Drainage Manual (http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm) or the TDOT Design Procedures for Hydraulic Structures (http://www.tdot.state.tn.us/chief_engineer/assistant_engineer_design/structures/thmall.pdf) during the design phase of the project. Structures will be sized to pass the appropriate flood flows in a riverine environment, and the floodplain connection will be maintained with three box culverts for flow equalization purposes. Water surface elevations are specified in hundredths of a foot, so an accurate numerical estimation cannot be provided until the hydraulic design is complete.*

Lisa Anderson mendenwood@mrgmemphis.com	Please, do not risk nor jeopardize the floodplain without investigating further. We need more studies on this subject before we would be willing to accept this idea. Without the facts of cost I'm sure it will also reflect on tax payers. Please, take this into consideration. *See page 54 of the SFEIS. Minimal clearing of trees and vegetation cover within the floodplains and zero-bank clearing at streams would reduce floodplain and water quality impacts. Every action will be executed to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains.* *The project will not result in a significant increase in flooding in the Wolf River floodplain. The guidelines of FEMA's National Flood Insurance Program (42 USC 50) will be met. They will also be consistent with requirements of floodplain management guidelines for implementing Executive Order 11988 and FHWA guidelines in 23 CFR 650A. Any hydraulic structures will be sized according to TDOT's policies in the TDOT Drainage Manual (http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm) or the TDOT Design Procedures for Hydraulic Structures (http://www.tdot.state.tn.us/chief_engineer/assistant_engineer_design/structures/thmall.pdf) during the design phase of the project. Structures will be sized to pass the appropriate flood flows in a riverine environment, and the floodplain connection will be maintained with three box culverts for flow equalization purposes. Water surface elevations are specified in hundredths of a foot, so an accurate numerical estimation cannot be provided until the hydraulic design is complete.* *The most recent planning level cost estimates developed for the project in 2008 estimate the interchange to be approximately $7.8 million of the total project cost of $23.8 million.*
Steven Sondheim Coordinator Citizens for TDOT Reform StevenSondheim@yahoo.com	The Citizens for TDOT Reform (CTR) was a part of and party to the UT study of 15 select projects selected by the Tennessee Comptroller for Review. As a result the Shelby Farms Parkway was assigned to go through a CSS process during which both the CTR and the Sierra Club participated. 1. We do not believe this plan satisfies NEPA and the 4(f) policy. Reasonable alternatives were not explored. Example: No Build Option-using the freeways and some slight improvements to current roads. This situation does not warrant a wider WG, a wider Mullins Station, a wider Whitten, a Sycamore View extended into the park. We also object to the plans that extend this internal "Freeway" and the Trumpet Interchange that is a poorly disguised attempt at building a commuting

Steven Sondheim Coordinator Citizens for TDOT Reform StevenSondheim@yahoo.com	freeway across SF Park. *FHWA cannot approve use of a Section 4(f) resource unless it determined there is no prudent and feasible alternative and the action includes all possible planning to minimize harm to the property resulting from such use of the Administration determines that the use of the property including any measures to minimize harm (e.g., avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant, will have a* de minimis *impact (see 23 CFR 774.3(a) & (b)). Alternatives outside Shelby Farms were not initially considered because Shelby Farms was considered to be a mixed-use facility, and the project was understood to pass through no recreational features within this mixed-use area (see 23 CFR 774.11(d)). Upon further review, and in light of the conservation easement Shelby County created for the Shelby Farms area, FHWA, Shelby County, and TDOT determined that even if the Shelby Farms area were considered a Section 4(f) resource as a whole, the project would have* de minimis *impacts in light of the avoidance, minimization, mitigation, and enhancement measures committed to and as described in Appendix E of the SFEIS. Under these circumstances, Section 4(f) would not require alternatives outside the boundaries of Shelby Farms to be contemplated. Similarly, alternatives outside the boundaries of Shelby Farms need not be considered since the joint-planning exception has been determined to apply (see 23 CFR 774.11(i)).* *The No-Build Option is considered in the SFEIS in Attachment A. The SFPAT was tasked with developing a build option that would be compared to the No-Build Option in the SFEIS. The city of Memphis and TDOT identified the build option of Alternative Q as the Selected Alternative.* 2. The Purpose is in direct conflict with The CSS team's wishes. The mission was to serve residents, local to the area around the park. This purpose has been skewed into becoming a Regional Connector. The CSS disapproved. This mission creep is counter to the avowed purpose of the Citizen CSS Committee. During the CSS process it was decided that the purpose would NOT be for commuter traffic between I40 and Poplar and not to encourage traffic inducing behavior from Bartlett, Raleigh, and Germantown to use the Parkway as a connector. The result of these projects would chop up the park area west of Farm into 4 pieces and ruin its viability. Since the Humphrey interchange, there is much less of a backup on WG. *The purpose and need of this project have been described in the four main objectives:* *1. To improve system linkages by providing a new north-south connection;* *2. To accommodate growth in east Memphis;*

Steven Sondheim Coordinator Citizens for TDOT Reform StevenSondheim@yahoo.com	*3. To improve or reduce travel time and delays on existing routes; and* *4. To improve overall safety.* *In addition, the SFPAT reached a consensus on additional Partnership Goals to be pursued in conjunction with the project design criteria. These goals were also utilized in the consideration of alternatives:* ***PARTNERSHIP GOALS*** • ***Create a road that enhances and embraces the park*** • ***Create a design concept that is socially, economically, and environmentally responsible*** • ***Create a safe and effective roadway design*** • ***Reduce corridor congestion*** • ***Produce an excellent design that enhances the quality of life in the community*** • ***Create the opportunity for non-vehicular traffic to enter and use the park*** • ***Create the opportunity for vehicular and non-vehicular crossing of the corridor including access for the physically challenged*** 2. The need has not been established. I40--I240 can be used for commuter traffic. Flow has been greatly enhanced, especially in the afternoon due to a dedicated on ramp lane at WG/I240 and a double on ramp at I240/I40. Similar improvements are underway for the morning traffic. *Planned improvements for I-40 and I-240 were anticipated in the design of this project and the identification of the Selected Alternative. Some of those improvements have been constructed. In addition, MPO projections included enhancements to I-40/240.* 3. The current roads with a few enhancements would serve this population well. Example: Right and left hand turn lanes at Farm and Mullins Station. Lengthening the turn lanes at Farm and Walnut Grove to get the traffic out of the travel through lanes. Commuter traffic can use the much improved freeway system rather than short cutting through the park which was not supposed to be supported according to the CSS. *Your suggestions will be passed on to the design consultant for consideration.* 4. The amount of additional traffic drawn to use the park would increase air pollution. We request studies to show that and it's resulting effects. Other "improvements" that are to accompany this

Steven Sondheim Coordinator Citizens for TDOT Reform StevenSondheim@yahoo.com	project including widening WG, Mullins Station, and Whitten are sprawl oriented and negatively affect air quality. We request a new analysis be done showing the effects of this whole "widened" system. *According to the calculated existing microscale emissions of carbon monoxide (as described in IV.A of the SFEIS), the maximum carbon monoxide concentrations in 2005 were 9.9 ppm for one-hour concentrations and 6.8 ppm for eight-hour concentrations. The maximum CO concentrations for 2026 are 8.0 ppm for one-hour concentrations and 5.4 ppm for eight-hour concentrations. The maximum CO concentrations for 2030 are 8.1 for one-hour concentrations and 5.5 ppm for eight-hour concentrations. The analysis shows that carbon monoxide concentrations for all receptors analyzed are below the one-hour standard of 35.0 ppm and the eight-hour standard of 9.0 ppm. The Memphis MPO models all projects included in the LRTP (including the Parkway) to determine attainment. The Memphis MPO model is described in Chapter 9 and Appendix G of the LRTP (see Attachment L of this document).* 5. There too many unaddressed risks and unresolved vulnerabilities of the landfill, aquifer, floodplain, wetlands, and the Wolf River. The FSEIS does an inadequate job of assuring the public that damage won't be done and mechanisms to mitigate effects. ***Wetlands, Streams, and Floodplains*** *See page viii of the SFEIS in Attachment A. The provisions of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the authorization by the USEPA under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.) and the Water Quality Act of 1987, P.L. 100-4 establishes the permits required prior to project initiation. The conditions of these permits shall be fully enforced during construction to minimize adverse impacts to the water quality of surface streams and groundwater in the project corridor. If concurrence is needed, the Memphis USACE District Hydraulics and Hydrology Branch would need to review the road profiles and hydraulic model to provide a more detailed review of the expected effect on the flowlines or assess the likelihood of increased scour at the Walnut Grove Road Bridge as a result of this project. Water normally carried by the ditches and streams within the Shelby Farms area should be handled by a provision of culverts through the proposed parkway.* *Executive Order 11990, Protection of Wetlands, provides guidelines to avoid wetlands where possible and minimize contact with them where total avoidance is not feasible. Federal resources management agencies (e.g., NRCS and USFWS) also recommend impact minimization measures as the BMPs. Mitigation measures and BMPs are proposed during highway construction to avoid, minimize, or mitigate impacts to*

Steven Sondheim Coordinator Citizens for TDOT Reform StevenSondheim@yahoo.com	*jurisdictional wetlands caused by any of the alternatives. These measures may include avoidance and minimization through roadway design modifications and mitigation through wetland banking. A combination of measures to mitigate for wetland losses and changes in functions and values will be employed. Selection of BMPs or mitigation measures is influenced primarily by functional values, wetland type, or objectives.* *Detailed wetland studies and delineation will take place prior to the Section 404/401 permitting. For DA permits, each crossing of a water of the U.S. is typically considered a single and complete project; therefore, each crossing/impact site should be specified as just part of a permit application. Mitigation monitoring plans will be approved by permitting agencies, and will be included with the wetland mitigation plan. If at all possible, avoidance of floodplains should take place. If this is not feasible, construction limits will be minimized and BMPs will be utilized. During or following high precipitation, limited activity should occur; work near streams shall be conducted during low-flow periods to minimize disturbance. Wetland, stream, and floodplain impacts are discussed in Section IV.C on pages 52-54 in the SFEIS in Attachment A.* ***Aquifer*** *A breach, or paleochannel, has been identified in the Memphis aquifer, a prolific aquifer that provides water to people throughout the Tennessee-Mississippi-Arkansas region, north of the closed landfill at Shelby Farms. Additional information about the Memphis aquifer is located in Section IV.N and Appendix H of the SFEIS (see Attachment A of this document). The commitments regarding the aquifer are summarized below.* *A total-containment policy will be adopted for any spills of hazardous or chemical materials on the road crossing Shelby Farms. The city of Memphis has committed to employ appropriate measures to capture oil and grit that might otherwise find their way into the aquifer through the window. Prompt response to such an incident and thoroughly cleaning the spill site, including the soil, should result in no spill products reaching the Memphis aquifer. An example of a total-containment method used along Interstate 65 near Mammoth Cave in Barren County, Kentucky, is featured in Appendix H of the SFEIS (see Attachment A of this document). Mammoth Cave is an underground resource that feeds groundwater resources. The city of Memphis has committed to including appropriate mitigation measures for managing the runoff from hazardous spill incidents as an element of the construction of the project and will maintain total containment methods following construction.* *A monitoring program will be initiated to evaluate the downgradient extent of a potential leachate plume, its direction of migration, and the impacts of decomposition and dilution on leachate contaminants. This*

Steven Sondheim Coordinator Citizens for TDOT Reform StevenSondheim@yahoo.com	*process would involve periodic sampling of the existing well network. This information should serve well to evaluate the potential for any spill contents to reach water supplies. The University of Memphis Groundwater Institute participated in developing commitments for this project and will be involved as design progresses.* *FHWA and the city of Memphis will work with their design consultant to determine how far downstream runoff can be discharged in an economically practical way. Guidelines in TDOT's Drainage Manual are used for all design projects in Tennessee (http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm). Standard practice is to connect drainage outfalls with the same channels they are currently using as much as is practical. All drainage outfalls on this project will reach their current outfall channel before reaching the Wolf River.* *See page 54 of the SFEIS. Minimal clearing of trees and vegetation cover within the floodplains and zero-bank clearing at streams would reduce floodplain and water quality impacts. Every action will be executed to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains.* *The project will not result in a significant increase in flooding in the Wolf River floodplain. The guidelines of FEMA's National Flood Insurance Program (42 USC 50) will be met. They will also be consistent with requirements of floodplain management guidelines for implementing Executive Order 11988 and FHWA guidelines in 23 CFR 650A. Any hydraulic structures will be sized according to TDOT's policies in the TDOT Drainage Manual (http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm) or the TDOT Design Procedures for Hydraulic Structures (http://www.tdot.state.tn.us/chief_engineer/assistant_engineer_design/structures/thmall.pdf) during the design phase of the project. Structures will be sized to pass the appropriate flood flows in a riverine environment, and the floodplain connection will be maintained with three box culverts for flow equalization purposes. Water surface elevations are specified in hundredths of a foot, so an accurate numerical estimation cannot be provided until the hydraulic design is complete.* 6. In addition there would be a number of negative effects on the park, including difficulty entering at Farm Road, difficulty for walkers/bikers from the greenway or the neighborhoods, And the un-park-like atmosphere created by trying to cross a park with a major connector. It is unnecessary and

Steven Sondheim Coordinator Citizens for TDOT Reform StevenSondheim@yahoo.com	damaging. Use the current park to let local residents to cross at traffic calmed 30 mph, use traffic management techniques on the current roads and freeways to handle the commuters. *The Selected Alternative will be enhanced by the inclusion of multiple bicycle and pedestrian multi-use paths separated from the roadway. There will also be two tunnels provided under the Parkway for cross-roadway connectivity. Details of the Farm Road/Parkway intersection will be coordinated with the SFPAT during final design once the ROD has been completed. Park and trail users will be able to safely and conveniently use the separate facilities.*
Edward Jones Memphis TN 38117 edshouse35@comcast.net	Once again, the state of Tennessee proposes to slice through Shelby Farms Park in Memphis with ugly, polluting highways which waste taxpayer money and ruin what little beauty we have in this part of the country. I implore you to extend the comment period for this awful project so those of us who care can submit more comments. Give us a reasonable chance to review the plan and express our comments. To whom have you been listening? Certainly not the citizens who use the park!!! *The original public notice for review of the approved SFEIS was put in the Commercial Appeal, the Tri-State Defender, and La Prensa on Thursday, March 1, 2012. The public notice stated that the SFEIS was available on the project Web site and that copies of the SFEIS were located at the Shelby Farms Park Visitor Center (500 North Pine Lake Drive), Memphis-Shelby County Public Library and Information Center (3030 Poplar Avenue), Memphis-Shelby County Public Library Cordova Branch (8457 Trinity Road), and University of Memphis Library-Government Publications Department (University of Memphis, 126 Ned R. McWherter Library). At the request of the SFPC, the comment period for the SFEIS was extended until Tuesday, April 26, 2012; a public notice of this extension was put on the project Web site (http://www.tdot.state.tn.us/kirbyparkway/library.shtml).* *As part of the CSS process, the SFPAT, a 19-member Resource Team that included users and representatives of users of the park, participated in a process to assist Shelby County, the city of Memphis, and TDOT in selecting a roadway design concept that met the citizens' needs. During that process, two public meetings and a public hearing were held along with six meetings with the SFPAT. An additional NEPA Public Hearing will be held in the fall of 2013, followed by a 30-day comment period.*
Mary Margaret Ware 2110 Hickory Crest Drive Memphis, TN 38119-5612 (901)756-5826	Page v. The stated goal is "to improve functionality and use of Shelby Farms through greater accessibility". The proposed design Q for Kirby Parkway would significantly impede accessibility to Shelby Farms Park because Farm Road would only allow access from the people going East on Walnut Grove. The proposed design Q suggests that another new proposed road, Sycamore View Extended, would provide access to the

Mary Margaret Ware 2110 Hickory Crest Drive Memphis, TN 38119-5612 (901)756-5826 waremmj@gmail.com	Park Center. However, this would result in even more environmental damage to park lands and also increased noise and air pollution within Shelby Farms. It is not valid to only study the environmental impact of Kirby Parkway if it requires another road to be built for access to the park. *The connection of the Parkway to Farm Road will be constructed as part of this project and be independent from the Sycamore View Road Extension project. This connection to Farm Road will serve as the new main entrance to Shelby Farms Park and will provide access from all directions via the Parkway. In addition, westbound traffic on Walnut Grove Road will also have the option of turning on Farm Road to enter the park. The Sycamore View Road Extension is not likely to be funded in future phases. TDOT will remove any references to the Sycamore View Road Extension in the ROD.* According to the U.S. DOT Livability in Transportation Guidebook (published September, 2010), three of the livability principles are: 1. Provide more transportation choices, 2. Support existing communities, and 3. Value communities and neighborhoods. This Kirby Parkway design does not provide more transportation choices. It does not support the existing community on Whitten Road. It does not value the community and neighborhood on Whitten Road. The proposed design has 106 ft. ROW with four 12 ft. lanes, a 14 ft. center turn lane, 10 ft. shoulder width on each side, and 5 ft. sidewalks on each side. There are no proposed bicycle facilities though this road is immediately adjacent to the Greenline bicycle and pedestrian trail. *See page 76 of the SFEIS in Attachment A. At the beginning of the CSS process for the Parkway, a short meeting with local interests and a public meeting were held regarding the design of the new Humphreys Boulevard interchange and the lack of bicycle facilities on three bridges that enter Shelby Farms. As a result of those meetings, innovative concepts were introduced to revise the north ramp design to include a protected multi-use path into Shelby Farms for bicycles and pedestrians. The previous bridge entering the Farms had a sign strictly prohibiting bicycle entry.* *The Livability in Transportation Guidebook, according to its own terms, "does not constitute a standard, specification, or regulation." The guidebook is a recommendation.* *As part of the design of this project, several multi-use paths for bicycles and pedestrians will be designed to further increase the number of transportation choices.* *The existing communities along Whitten Road are supported by a more safely designed and constructed*

Mary Margaret Ware 2110 Hickory Crest Drive Memphis, TN 38119-5612 (901)756-5826 waremmj@gmail.com	*roadway with areas for bike lanes and sidewalks for pedestrians. The proposed typical section has been reduced along Whitten Road to decrease the footprint by changing the 10-foot shoulders to four-foot bicycle lanes, specifically.* Recommendations for Kirby Parkway between Mullins Station and Macon Road: 1. A complete street design as (described in the Memphis LRTP Direction 2040) should be used in order to support the livability of this neighborhood and enhance it aesthetically. This neighborhood roadway does not need to be paved as a seven lane road (with the extra lanes being described as shoulders). It would be more appropriate for this neighborhood road to be a **Minor Arterial** with speeds **less than 35 mph**. (as described on page 5-43 of the Memphis LRTP Direction 2040). It could have consistent three lanes with a two-way left turn lane. The 5 ft. sidewalks should have a tree lined buffer of 8 to 10 ft. and a curb and gutter of 2 ft. *See the April 13, 2011 PowerPoint presentation in Attachment B of this document, showing the typical sections for the project.* 2. Rather than have marked bike lanes on the road, it would be preferable to use this 8 feet as one off-road trail on one side to connect with the Greenline. This would enhance biking and walking in this neighborhood while improving the neighborhood aesthetically with a further setback from the traffic lanes. It is safer to separate the bike riders from the automobile traffic and also from the walkers whenever possible. *See the April 13, 2011 PowerPoint presentation in Attachment B for the project. Your suggestions will be passed on to the design team.* 3. The 14 ft. two-way left turn lane would benefit through traffic while also providing a means for cars to turn left easily out of the intersecting neighborhood streets. *It is now a 12-foot lane, not 14.* 4. At the intersection with Mullins Station Rd., there could be a right-turn lane to improve the flow of through traffic. *As final design proceeds, additional traffic analysis will be performed and details for turn lanes will be*

Mary Margaret Ware 2110 Hickory Crest Drive Memphis, TN 38119-5612 (901)756-5826 waremmj@gmail.com	*considered at intersections.* 5. The Through Travel Lane could be 14 feet to accommodate bus transit service. This would increase mode choice for this community. If bus transit is not a possibility, then the lane should only be a maximum of 12 ft. in order to reduce speeding on this roadway. *Through lane widths on multi-lane arterial facilities are rarely designed wider than 12 feet in order to reduce confusion of cars trying to pass in a single lane. In addition, a 12-foot lane will accommodate buses.* 6. With this minor arterial complete street design the right-of-way required would only be 82 ft. (instead of 106 ft. as proposed) which would have less devastating effect on the houses on Whitten Road. *Traffic volumes of 24,400 ADT (see Attachment M of this document for 2012 updated traffic forecasts) on this segment will warrant the construction of two through lanes in each direction at a Level of Service B. Urban roadways are typically designed to meet at least a Level of Service D. A three-lane Parkway would operate at Level of Service E in this location. Five lanes will also make the section consistent with the section through Shelby Farms and the section of Whitten Road north of Macon Road.* 7. The aesthetics of this neighborhood would be improved by having tree-lined sidewalks with the 8 foot buffer between the sidewalk and the curb. *See April 13, 2011 PowerPoint presentation in Attachment B. Trees are part of the landscape plan.* 8. The safety for older drivers, for younger drivers, for walkers, for bikers, would be improved if this were constructed as a three lane minor arterial through this neighborhood with speed limits of 30 mph. (or even 25 mph). *See April 13, 2011 PowerPoint presentation in Attachment B. Four lanes are justified due to the traffic projections of 24,400 ADT (see Attachment M for 2012 updated traffic forecasts) on this segment, which will warrant the construction of two through lanes in each direction at a Level of Service B. Urban roadways are typically designed to meet at least a Level of Service D. A three-lane Parkway would operate at Level of Service E in this location. The posted speed is likely to be 35 mph since the section to the north is posted at 45 mph.*

Mary Margaret Ware 2110 Hickory Crest Drive Memphis, TN 38119-5612 (901)756-5826 waremmj@gmail.com	9. This three-lane complete street would be more economically feasible while also being socially and environmentally responsible (Partnership Goal 3). The amount of pavement would be decreased by almost 60% and the ROW would be decreased by 24 ft. so this would be substantial savings of taxpayer money. *See April 13, 2011 PowerPoint presentation in Attachment B. An additional NEPA Public Hearing will be held in the fall of 2013. A design meeting will be held with the public at a later date to present further details of the proposed design.* 10. This complete street would enhance the quality of life in the community (Partnership Goal 5). *Noted* 11. This complete street three lane road would create a safe and effective roadway design. Having a traffic signal at Mullins Station Rd. would improve the efficiency as compared with the current 3-way Stop. Having right and left turn lanes would also improve the flow of traffic at this intersection. *Noted* 12. If this is built as a minor arterial then hopefully it would be possible to prohibit truck traffic. If accepting federal funding for this road means that trucks must be allowed, then it should be constructed with only local funds when that becomes feasible. *See page 76 of the SFEIS in Attachment A. According to 23 CFR 658.19(a), reasonable access between National Network routes (such as nearby I-240, 1-40, and US 79) and points of loading and unloading to household goods carriers, motor carriers of passengers, and other covered truck tractor/semitrailer combinations is required; therefore, since non-motorized traffic and tractor-trailer traffic will be separated in the proposed parkway, thereby making the road safer for all users, tractor-trailer traffic cannot be prohibited from using the parkway because the state cannot deny reasonable access to tractor-trailers (23 CFR 658.19(h)(ii)).* *Due to budgetary constraints by the City, federal funding must be used to cover the costs associated with*

Mary Margaret Ware 2110 Hickory Crest Drive Memphis, TN 38119-5612 (901)756-5826 waremmj@gmail.com	*construction.* 13. Having raised and highlighted crosswalks on Mullins Station Road intersection would serve as a 25 mph speed breaks, which would be safer for the future Greenline crossing here. Countdown traffic signals would also facilitate safe pedestrian crossings. *Your suggestions will be passed on to the design consultant for consideration in final design.* 14. This complete street would conceivably increase the value of these homes instead of decreasing their value with an intrusive high-speed thoroughfare. Thus this would add value to the Memphis tax base. *Noted* In order to preserve Shelby Farms and enhance the livability of the Whitten Rd. community, this roadway should be redesigned to be an Urban Minor Arterial with a synchronized traffic signal at Walnut Grove Road. There should not be an interstate style interchange in Shelby Farms, and this design change would eliminate almost all of the environmental problems and save approximately $25 million. The Mullins Station/Macon Road segment should be a complete street with three lanes. The park segment should be a divided parkway design with only 4 paved lanes and separate bicycle and pedestrian paths. The posted and design speed should be 25 mph through the park and through the Whitten neighborhood to maintain safety, decrease noise, and decrease air pollution. *A fully at-grade intersection was discussed by the SFPAT but quickly dismissed as a potential alternative due to the traffic volumes involved. For the purposes of responding to these comments, traffic analyses were performed on an at-grade, signalized intersection utilizing dual left-turn lanes. Attachment P shows the comparison of delay times in seconds and Highway Capacity Software Levels of Service for Alternative R, which utilized a two-phase signal and a flyover ramp for the eastbound Walnut Grove Road to northbound Shelby Farms Parkway movement. Alternative Q is a fully free-flow interchange and therefore does not have any intersection delay. The second chart in Attachment P provides delays, levels of service, queue lengths, and travel times for a fully at-grade intersection using the updated 2012 traffic forecasts for design year 2040. An at-grade intersection increases travel times as much as eight minutes or more than doubles the travel times. Intersection delays also increase by anywhere from 75 seconds to 110 seconds (Level of Service F) as compared to Alternative R. Queue lengths backing up from the intersection would be expected to reach*

Mary Margaret Ware 2110 Hickory Crest Drive Memphis, TN 38119-5612 (901)756-5826 waremmj@gmail.com	*as much as 5,000 feet.* *The trumpet interchange was recommended by the SFPAT after much discussion and study. The cost difference between the grade-separated interchange recommended and the fly-over interchange with the signalized intersection was approximately $500,000. In comparison, the total cost of the interchange, including Walnut Grove Road widening work, is approximately $7.8 million. The total cost of the project is estimated to be $23.8 million.* *See page 14 of the SFEIS in Attachment A of this document, and see the April 13, 2011 PowerPoint presentation in Attachment B. The SFPAT made a recommendation for a 40 mph design speed as appropriate with the expectation that the posted speed limit will be 35 mph through Shelby Farms. There are only four paved lanes, as a reinforced earth shoulder will be utilized. The Selected Alternative will be enhanced by the inclusion of multiple bicycle and pedestrian multi-use paths separated from the roadway. There will also be two tunnels provided under the Parkway for cross-roadway connectivity.*
Ronald A Belz President and COO John J Dudas Vice President and Director of Strategic Planning	The completion of Kirby Parkway between Walnut Grove and I-40 has been in the discussion stages for over 30 years. At the present time, there is no north-south major road in the east central portion of Shelby County between White Station and Germantown Parkway, a distance of approximately 4 miles. No other developed area of Shelby County has a 4 mile gap in terms of major road service. As this area has developed, access has become even more challenging for residents, office and other workers, medical care consumers, shoppers and other travelers. This lack of a north-south connection has a direct impact on the economic potential of Bartlett, the Sycamore View-Shelby Oaks business centers, the Goodlett Farms office park and other business, shopping and residential areas in North Central Shelby County. Furthermore, the areas to the sough of Shelby Farms such as the Baptist Hospital complex and the major employment centers along Poplar Avenue and Kirby Parkway are more difficult to access by potential employees living north of Shelby Farms due to this 4 mile major road gap. In addition to the economic impacts and the impact on accessibility, there is a negative impact on the interstate system, as I-240 between Whitten Road and Walnut Grove must currently accommodate the local traffic that would be using Kirby Parkway between Walnut Grove and I-240 if that road were in place. In addition to the additional congestion caused on I-240 by this traffic there is also the potential for additional accidents on I-240 due to the local traffic, which really does not need to be traveling at interstate speed. Furthermore, vehicles wishing to travel from I-40 to Walnut Grove must travel almost twice the distance using I-240 rather than the proposed Kirby Parkway. This additional travel distance required additional use

Ronald A Belz President and COO John J Dudas Vice President and Director of Strategic Planning	of fuel and may lead to additional air pollution. Mayor Wharton established the Shelby Farms Parkway Advisory Team in 2005 in order to resolve disagreements over the proposed road and develop a consensus among various groups and individuals as to the optimum route and design of the road. After numerous meetings, the Team developed a document with a series of recommendations for the Parkway which was signed by all of the participants in the group. (This group was subsequently reconvened by Mayor Luttrell). This document should serve as the guide for evaluating individual design issues, including the role of Farm Road and its relationship with Walnut Grove Road and the proposed Shelby Farms Parkway. For example, the document envisioned that the main vehicular entrance to Shelby Farms Park would be located on Shelby Farms Parkway at Sycamore View extended east. Farm Road was to become an internal park road with a right-in, right-out intersection with Walnut Grove. Due to the construction of the proposed new grade-separated interchange between Walnut Grove and the proposed Shelby Farms parkway it was not considered safe to allow another road to have a full intersection with Walnut Grove, whether signalized or not. In terms of the alignment of the proposed Shelby Farms Parkway, the Team spent many hours discussing the specific route, configurations, widths, number of lanes, heights of ramps, and other details of the design. One of the overriding goals of the process was minimizing the impact on the park. The current proposed alignment accomplishes that goal. I respectfully request that this very critical transportation project be approved and proceed to the next phase of development as soon as possible, so that the existing negative economic and transportation circumstances in Shelby county can be ameliorated by the construction and opening of this vitally needed facility. *Noted*
Mr. Stephen Nelson 7114 Manor Woods Ct. Germantown, TN 38138	For many years of my real estate career I worked on Kirby Parkway, now known as Shelby Farms Parkway. Although now retired, I still feel strongly that this project needs to proceed. The reasons for doing so have been well documented over the long history of this project. The Shelby Farms Parkway Advisory Team developed a document with a series of recommendations for the Parkway and this document was signed by all Team members. The Team spent many hours discussing the specific route options, intersections configurations, widths,

Mr. Stephen Nelson 7114 Manor Woods Ct. Germantown, TN 38138	number of lanes, heights of ramps, and other design details. The resulting plan is testimony to the fact that various interest groups can work together toward a constructive conclusion. The plan truly does meet the goal of minimizing the impact on Shelby Farms Park, while accommodating a much needed north-south roadway. I therefore request that this very critical transportation project be approved and that TDOT proceed to the next phase of development as soon as possible. *Noted*

Comments at meeting on 5/3/12 at Benjamin L. Hooks Central Library; Memphis, TN.

Participants: Art Wolff, Dennis Lynch and Mary Margaret Ware, citizens
Angie Midgett and Jason Baker, TDOT
Britta Stein and Gary Fottrell, FHWA – TN Division

Commenter	***Comment***
Mr. Art Wolff	Mr. Wolff wants the process to be fair and all sides to be heard. He states that he's not getting good answers from the city of Memphis, but TDOT and FHWA both say it's a city project. He's concerned about the public hearing, and thinks the process should be started over. There should be more advertising – buy a page in the paper, or run an article, don't put the announcement in the legal section in the back. Have radio ads. He believes that public participation has not been properly done, objects to the process, and believes that the legal notice is insufficient. He stated that the CSS process is flawed, polluted, and illegal, and not all of the environmental factors were discussed. There was no mention of the aquifer, or the oil/water separator, which will require city maintenance from now on. There is a landfill that is leaching into the aquifer now. The proposal is taking up acres of floodplain – the road fill is filling the floodplain – he states that there was no mention of this during the CSS process. He wants the CSS process to be redone and for an alternate location to be studied. He states that this was an illegal process and that information has been withheld. He will be glad to meet again to discuss this further. *See page 76 of the SFEIS in Appendix A. The Public Hearing was held on December 13, 2007. In addition, two other Public Meetings were held on March 24, 2005 and November 11, 2005. Six Resource Team Meetings were held with the*

Mr. Art Wolff	*SFPAT. A future NEPA Public Hearing will be held in the fall of 2013. This meeting will utilize multiple sources to advertise the meeting. TDOT will go beyond their standard advertising practices for this meeting.* *The CSS process is not a process required by FHWA or TDOT on projects; therefore, it is not illegal. The CSS process is endorsed by the FHWA and more info is found here: http://www.fhwa.dot.gov/context/css_primer/index.htm.* *For this project, it was an effort to involve a concerned group of citizens. Far from evidencing any intent to withhold information, it was an open endeavor to involve the public. It was performed at the discretion of Shelby County and the SFPAT.* *A breach, or paleochannel, has been identified in the Memphis aquifer, a prolific aquifer that provides water to people throughout the Tennessee-Mississippi-Arkansas region, north of the closed landfill at Shelby Farms. Although additional soils are located between the aquifer and the surface, a breach is a "window" where the confining clay thins or becomes absent. Additional information about the Memphis aquifer is located in Section IV.N and Appendix H of the SFEIS (see Attachment A of this document). The commitments regarding the aquifer are summarized below.* *A total-containment policy will be adopted for any spills of hazardous or chemical materials on the road crossing Shelby Farms. The city of Memphis has committed to employ appropriate measures to capture oil and grit that might otherwise find their way into the aquifer through the window. Prompt response to such an incident and thoroughly cleaning the spill site, including the soil, should result in no spill products reaching the Memphis aquifer. An example of a total-containment method used along Interstate 65 near Mammoth Cave in Barren County, Kentucky, is featured in Appendix H of the SFEIS (see Attachment A of this document). Mammoth Cave is an underground resource that feeds groundwater resources. The city of Memphis has committed to including appropriate mitigation measures for managing the runoff from hazardous spill incidents as an element of the construction of the project and will maintain total containment methods following construction.* *A monitoring program will be initiated to evaluate the downgradient extent of a potential leachate plume, its direction of migration, and the impacts of decomposition and dilution on leachate contaminants. This process would involve periodic sampling of the existing well network. This information should serve well to evaluate the potential for any spill contents to reach water supplies. The University of Memphis Groundwater Institute participated in developing commitments for this project and will be involved as design progresses.* *FHWA and the city of Memphis will work with their design consultant to determine how far downstream runoff can be discharged in an economically practical way. Guidelines in TDOT's Drainage Manual are used for all design projects in Tennessee (*http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm*).*

Mr. Art Wolff	*Standard practice is to connect drainage outfalls with the same channels they are currently using as much as is practical. All drainage outfalls on this project will reach their current outfall channel before reaching the Wolf River.* *See page 54 of the SFEIS. Minimal clearing of trees and vegetation cover within the floodplains and zero-bank clearing at streams would reduce floodplain and water quality impacts. Every action will be executed to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains.* *The project will not result in a significant increase in flooding in the Wolf River floodplain. The guidelines of FEMA's National Flood Insurance Program (42 USC 50) will be met. They will also be consistent with requirements of floodplain management guidelines for implementing Executive Order 11988 and FHWA guidelines in 23 CFR 650A. Any hydraulic structures will be sized according to TDOT's policies in the TDOT Drainage Manual (http://www.tdot.state.tn.us/Chief_Engineer/assistant_engineer_design/design/DrainManChap%201-11.htm) or the TDOT Design Procedures for Hydraulic Structures (http://www.tdot.state.tn.us/chief_engineer/assistant_engineer_design/structures/thmall.pdf) during the design phase of the project. Structures will be sized to pass the appropriate flood flows in a riverine environment, and the floodplain connection will be maintained with three box culverts for flow equalization purposes. Water surface elevations are specified in hundredths of a foot, so an accurate numerical estimation cannot be provided until the hydraulic design is complete.*
Ms. Mary Margaret Ware	Ms. Ware notes that Kirby Parkway was discussed in a 2003 document by the University of Tennessee (15 case studies) – it was noted that the current Kirby Parkway configuration was unsatisfactory because other context sensitive alternative designs were not considered (see http://www.tdot.state.tn.us/news/2003/listening/Walnut%20Grove%20Relocation%20Project%20in%20Memphis.pdf). The interchange (6 lanes with overpass – she noted that while the road is 4 lanes, the pavement width, including shoulders, is wide enough to be 6 lanes) is inconsistent with Shelby Farms. She would prefer that the City use a traffic signal instead of the interchange, like at Baptist Hospital and Briarview. She states that the citizen design group was told that there had to be an interchange, and that a signal would give a Level of Service of D or F. She asks about the LOS at Baptist Hospital – is it acceptable? She notes that the interchange at Walnut Grove Road and Germantown Road is not nearly as big as this one. She notes that this is in an area of flooding and desires that the City improve public participation. *The SFPAT did recommend a reinforced grass shoulder so that the footprint of the road would be reduced through*

Ms. Mary Margaret Ware	*Shelby Farms (see April 13, 2011 PowerPoint presentation to SFPAT in Attachment B). The final design will follow as much as possible the conceptual drawings from the April 13, 2011 PowerPoint presentation to SFPAT.* *The SFPAT reviewed traffic forecasts, turning movements, renderings, costs, impacts, and traffic simulations in the recommendation of the preferred interchange. The selection was not easy and every effort was made to reduce the footprint and height of the interchange. The trumpet interchange will have fewer accidents than a signalized intersection due to a decrease in conflict points. This configuration was arrived at through considerable discussion and study during the CSS process with the SFPAT. Dr. Marty Lipinski of the University of Memphis is a member of the SFPAT and spoke to the group regarding safety concerns with the intersection.* *A fully at-grade intersection was discussed by the SFPAT but quickly dismissed as a potential alternative due to the traffic volumes involved. For the purposes of responding to these comments, traffic analyses were performed on an at-grade, signalized intersection utilizing dual left-turn lanes. Attachment P shows the comparison of delay times in seconds and Highway Capacity Software Levels of Service for Alternative R, which utilized a two-phase signal and a flyover ramp for the eastbound Walnut Grove Road to northbound Shelby Farms Parkway movement. Alternative Q is a fully free-flow interchange and therefore does not have any intersection delay. The second chart in Attachment P provides delays, levels of service, queue lengths, and travel times for a fully at-grade intersection using the updated 2012 traffic forecasts for design year 2040. An at-grade intersection increases travel times as much as eight minutes or more than doubles the travel times. Intersection delays also increase by anywhere from 75 seconds to 110 seconds (Level of Service F) as compared to Alternative R. Queue lengths backing up from the intersection would be expected to reach as much as 5,000 feet.* *A Level of Service study was not completed for Baptist Hospital since it is outside the project area.*