Mr. Chester Sutherland Project Management Division TDOT Region 2 P.O. Box 22368 Chattanooga, TN 37422 Chester.Sutherland@tn.gov

Re: US 64, Corridor K, Ocoee River Gorge Section

Dear Mr. Sutherland:

We are pleased to submit these comments from the Southern Appalachian Forest Coalition, Southern Environmental Law Center, WaysSouth, and the Wilderness Society on the current state of the Corridor K project, as outlined at the Environmental, Economics and Utilities ("EEU") Briefing March 28, the public meetings March 28 and 29, and accompanying materials.

We are pleased that TDOT has made changes to the stated purpose and need for the project to more accurately reflect the state of affairs, but we remain concerned that TDOT is improperly limiting its consideration of reasonable alternatives. Ultimately, the purpose and need of this project as redefined by TDOT provides no basis for eliminating Option 2A from detailed consideration in the upcoming environmental review. All the alternatives, including spot improvements along the existing corridor will fulfill the purpose and need of this proposed project. Furthermore, even if Option 2A did not fully meet the purpose and need for this project, TDOT cannot ignore the possibility of a blended alternative that meets the purpose and need but also minimizes the extraordinary environmental and fiscal impact attributable to construction of roadway on a new footprint.

Revised Purpose and Need

Economic Development

At the EEU Briefing, TDOT stated that it is dropping economic development as part of the purpose and need for the project. We applaud this decision.

As we have noted before, the "Corridor K Economic Development and Transportation Study" on which the economic development argument for this project for the Appalachian

Regional Commission was based is fatally flawed.¹ That paper, developed by a third-party consultant for the Appalachian Regional Commission, cannot support a conclusion that the proposed project will produce tangible economic development benefits.

More fundamentally, recent peer-reviewed research establishes that highways do not, by themselves, promote economic development in rural communities.² These studies identify several characteristics indicating that a new highway will not produce substantial economic development. Polk County exhibits many of those characteristics including a small population and distance from major metropolitan areas. Because lack of highway access is not the limiting factors inhibiting economic development in Polk County, highway construction cannot reasonably be expected to produce economic development. We believe TDOT is right to discard economic development as a purpose of the proposed project.

At the same time, we note a disconnect between the purpose of the Appalachian Development Highway System ("ADHS") program, "to generate economic development," and a project that is acknowledged to serve no substantiated economic development purpose or need. Rather than a defect in the project's purpose and need statement, however, we believe this reflects the changing needs of Appalachian communities since the 45-year-old Appalachian Regional Development Act was conceived. Because of changes in global and regional economies since the 1960s, the lack of high speed road connections is no longer, if ever it was, a factor limiting economic success in most Appalachian communities. We believe ARC is well positioned to support effective economic development strategies that address modern challenges faced by Appalachian communities and should reprioritize its resources away from the outdated goal of "completing" the last, most expensive segments of the ADHS.

Safety

TDOT also announced at the EEU Briefing that safety, in the form of reduction of accident rates, would no longer be a component of the purpose and need statement for the project. (We note that the materials displayed at the public meetings did not reflect this decision, however.) As noted in the Transportation Planning Report, TDOT undertook and completed much-needed spot improvements of safety problems at twelve sites in the project area prior to October 2009. Additionally, realignment of a notorious 15-mph curve was completed during reconstruction work after the rockslide in 2009. We commend TDOT for addressing these safety issues expediently and efficiently for the benefit of all who use the existing corridor. One

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¹ As we have previously commented, the report based its economic calculations on an unrepresentative sample of regional businesses and made many unsupportable assumptions. We note, for example, that the ARC economics study projected Level of Service F on the existing roadway for the design year, in contrast to TDOT's own projections in the TPR that the no build option will provide an acceptable Level of Service C in the design year. (Corridor K Economics Study at 72; TPR at 64).

² See, e.g., Terance Rephann & Andrew Isserman, New Highways as Economic Development Tools: An Evaluation Using Quasi-Experimental Matching Methods (1994) (available at www.equotient.net/papers/HIGHPAP.pdf); Federal Highway Administration, Economic Effects of Selected Rural Interstates at the County Level (2005) (available at http://www.fhwa.dot.gov/planning/econdev/summary.htm).

³ See http://www.arc.gov/adhs.

⁴ TPR at 36.

⁵ Id.

result of these improvements, however, is the elimination of safety as a legitimate need that would be addressed by the currently proposed project. Furthermore, we believe the safety work completed in 2009 proves the effectiveness of a strategy that focuses resources on spot improvements throughout the existing corridor.

System Linkage

In light of these changes to the purpose and need, the project is now justified solely on the basis of "system linkage" and "design deficiencies." Neither justification, however, provides a legitimate basis for rejecting any of the alternatives currently under consideration.

System linkage is, of itself, a nearly limitless justification for new road construction. Without logical limitations, the goal of improving system linkage would justify construction of new interstate-standard roadway to every town and hamlet in the nation. To the contrary, TDOT and other departments of transportation do not work to improve system linkage for its own sake, but rather to address problems and to meet needs. In short, system linkage is a means to an end, not an end unto itself.

TDOT has already concluded, however, that improving system linkage by providing a new highway will not serve a substantiated economic development need and can no longer be justified as serving safety problems. While the TPR notes that the project would increase linkage with the Forest Service road networks, health care facilities, educational facilities and employment opportunities⁷ there is nothing in the TPR to indicate that any of the alternatives provide better linkage with those facilities than the existing route. Notably, travel times between alternatives are little improved under any of the build alternatives and even the no build alternative provides an acceptable level of service in the design year.

The only remaining problem to be addressed by improved system linkage, then, is increasing the number of routes available in the event of a road closure as happened with the recent rockslide on US 64 in Polk County. The goal of increasing system linkage does not provide a basis for distinguishing between alternatives on that basis, however, because none of the alternatives are guaranteed to increase the number of routes available to the residents of Polk County and surrounding counties. Unless and until TDOT can confirm that construction of highway on a new footprint will be complimented by continued maintenance of the existing road corridor, all of the alternatives, including the no build alternative, can be expected to have the same impact on the number of routes available. Although TDOT is "in negotiations" for an agreement to maintain the existing road, any such agreement is only as strong as the political will to keep it in place. In an age of shrinking construction and maintenance budgets, rising fuel prices, reduced vehicle miles traveled, and increasing political division, it must be assumed that both roads will not be maintained indefinitely. In short, the no build and improve existing alternatives cannot be eliminated from detailed consideration on the ground that they leave the

⁷ TPR at 38-39.

⁶ TPR at 38.

⁸ See Methow Valley Citizens Council v. Regional Forester, 833 F.2d 810, 816 (9th Cir. 1988), rev'd on other grounds, 490 U.S.332 (1989) (reasonable range of alternatives framed by purposes of the project).

citizens of Polk County with only one travel route, because it remains doubtful that the other alternatives will accomplish anything more.

Furthermore, even if it were clear that some alternatives would provide more routing options to the citizens of Polk County, it is premature to dismiss other alternatives from detailed consideration given the disproportionate cost of providing that increased linkage. The Appalachian Regional Commission recently conducted a study calculating that the 2009 rock slide in Polk County cost \$22 million in lost time and additional transportation costs. While sobering and substantial, that cost is dwarfed by the cost to the taxpayer of the estimated \$380 million construction cost for Options 7 and 8, for example, which require construction on a new road footprint. Instead of eliminating from consideration any alternatives that do not build on a new footprint, TDOT must explore whether more cost effective engineering solutions are available to prevent future rockslides and closures of the existing corridor.

Therefore, increased "system linkage" is not a reasonable justification to build a new road and is not a justifiable basis for elimination of alternatives from detailed consideration at this stage. If anything, it can only support improving the existing road, since the harm to the transportation network from the complete loss of the existing road would be much greater than any benefits of a new road.

Design Deficiencies

Thus, the justification to build the Corridor K project essentially boils down to "design deficiencies"—that is, the idea that the existing road does not meet necessary design standards. This reasoning, however, is circular. Design standards exist to ensure that a road is suitable for its intended use. Without any further articulation of the needs for and of a project, it is impossible to say what, if any, standards should be applied.

In the context of the Corridor K project specifically, this means that alternatives that would provide adequate safety and mobility cannot be eliminated during the NEPA process simply because it would be difficult or impossible to build them to a given design level, such as continual 50 mph design speed or 10-foot paved shoulders. Instead, the technical needs of the project must be determined, and only then can the standards necessary to meet those needs be articulated. This requires a full NEPA analysis.

The TPR describes the "design deficiencies" of the corridor to include (1) the requirements of the ADHS and the National Truck Network and (2) safety deficiencies identified in TDOT's Road Safety Audit Report. 10 As discussed above, however, the safety concerns identified by the Road Safety Audit have already been addressed by spot improvements. In addition, as discussed in greater detail below, designation of the corridor as part of the ADHS does not constrain the design of the corridor such that it would provide a basis for distinguishing between the alternatives or eliminating any alternatives from detailed consideration. Similarly, authorities related to the National Truck Network provide some guidance on lane geometry, 11 but

¹⁰ TPR at 38.

⁹ TPR at 99, 106.

^{11 23} C.F.R. Part 658.

do not mandate design standards that would eliminate any build alternative, including spot improvements of the current roadway, from detailed consideration.

More fundamentally, long range plans like the ADHS and the National Truck Network cannot provide a basis for eliminating alternatives from detailed consideration. According to the Federal Highway Administration's guidance, long-range plans that have not been subject to NEPA review can be used to frame the purpose and need of a project, but NEPA does not permit an agency to define the purpose and need so narrowly as to foreclose the consideration of reasonable alternatives. To that end, FHWA guidance provides that "[c]onsistent with NEPA, the purpose and need statement should be a statement of a transportation problem, not a specific solution." A long-range plan may be reflected in a purpose and need statement, for example, to the extent it "has selected a general travel corridor" but it cannot be cited to dictate detailed design considerations. Similarly, the Clean Water Act bars TDOT from defining its overall project purpose so narrowly that practicable alternatives are prematurely eliminated.

Thus, while we applaud TDOT for reassessing its purpose and need for the project in light of new information about the economic development potential of the project and safety needs of the corridor, we caution that the remaining prongs of the purpose and need statement (improving system linkage and addressing design deficiencies) provide the agency little basis for distinguishing between the alternatives under consideration and no legitimate basis for prematurely eliminating an alternative from detailed consideration.

Eliminated Alternatives

We turn now to the "heart of the environmental impact statement," ¹⁶ the alternatives analysis. TDOT has announced its intention to drop four of the alternatives it was previously considering: Spot Improvements to U.S. 64 (Alt. 2A), the "Kimsey Mountain Highway" alternative (Alt. 3), and the two "Southern Corridors" (Alts. 6 and 7). We agree with the elimination of three of these alternatives, but we believe the fourth should remain for consideration.

Kimsey Mountain and Southern Corridors

TDOT is correct to eliminate these three alternatives. For the Southern Corridors (Alts. 6 and 7), TDOT determined that passing through the Ocoee Bear Reserve represents a "fatal flaw" under Section 4(f) of the Department of Transportation Act, 49 U.S.C. § 303(c), in light of other prudent and feasible alternatives. This decision is correct, and it is appropriate not to waste further resources studying alternatives that could not legally be built.

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¹² Davis v. Mineta, 302 F.3d 1104, 1119 (7th Cir. 2002); Simmons v. U.S. Army Corps of Engineers, 120 F.3d 664, 669 (7th Cir. 1997).

 $^{^{13}}$ 23 C.F.R. Part 450 Appendix A at ¶ 8.

¹⁴ Id. at \P 11(a)(1) (emphasis added).

¹⁵ See Std. Op. Proc. for Army Corps Regulatory Program at 15.

¹⁶ 40 C.F.R. § 1502.14.

As for the Kimsey Mountain Highway corridor (Alt. 3), the route's exorbitant cost, greater mileage, and obvious disproportionate environmental and cultural impact all demonstrate that it is not, and never has been, a practicable alternative that should be considered.

Spot Improvements

We disagree, however, with the decision to drop Spot Improvements to U.S. 64 (Alt. 2A). TDOT has not demonstrated that the alternative does not meet the project purpose and need or is otherwise impracticable. In particular, TDOT has not shown that implementation of the improvements included in Alternative 2A would not provide a safe, reliable east-west route through the Ocoee gorge area. At most, TDOT has shown that implementing Alternative 2A would not provide a route that continuously meets the all the design standards it has arbitrarily applied to the project. However, as discussed above, without showing that these standards are necessary to meet the needs of the route, this is not a sufficient basis to eliminate an alternative.

For example, the Appalachian Regional Development Act places no restrictions on the scope and design of corridors in the ADHS. ARC Policy itself affords ample flexibility to design a two-lane roadway with spot improvements of the existing footprint. ARC policy directs only that the ADHS shall provide a "safe, economical transport network, adequate for the predicted type and volume of traffic to be served by the respective segments."¹⁷ As noted above, TDOT projects that all the alternatives under consideration, including Option 2A, will provide acceptable levels of service for the design year. 18 Furthermore, ARC policy provides only that:

The design and construction shall be coordinated with the objective of achieving continuity and reasonable uniformity throughout the system, and an average travel speed of approximately 50 miles per hour between major termini of the System, commensurate with terrain. Elements of design, such as number of lanes, grade, alignment, and degree of access control may be varied to achieve this objective. 19

As stated in this ARC guidance, ARC policy directs only that the average travel speed (not design speed) between major termini in the system (e.g., between the intersection of U.S. 75 and U.S. 441 near Dillsboro and the intersection with I-75 near Chattanooga) average 50 mph. Any elimination of an alternative solely because discrete segments of rugged terrain may fall below a travel speed of 50mph would be arbitrary and would violate NEPA. Under NEPA, TDOT has an affirmative "duty to study all the alternatives that appear reasonable and appropriate for study . . . as well as significant alternatives suggested by other agencies or the public during the comment period."20

Even to the extent terrain constraints associated with Alternative 2A might prevent it from meeting any design requirements set by ARC, ARC design policies can be "waived, as

 $^{^{17}}$ Appalachian Regional Commission (ARC) Code at 9.1. 18 TPR at 64.

¹⁹ ARC Code at Section 9.1.

²⁰ Dubois v. U.S. Dep't of Agric., 102 F.3d 1273, 1286 (1st Cir. 1996).

necessary, for effective administration of the Commission and its program."²¹ TDOT has likewise committed itself to exercising all the flexibility afforded to it in the design of roads like Corridor K to minimize cost and environmental degradation. TDOT's commitment to Context Sensitive Solutions states that "Context Sensitive Solutions balance safety and mobility and the preservation of scenic, aesthetic, historic, environmental and other community values."²² A key principal of CSS directs TDOT to "[a]pply the flexibility inherent within national design standards."²³ Premature elimination of Alternative 2A from detailed consideration in the environmental review because of the possibility of occasional conflicts with arbitrary design standards applied by TDOT would fly in the face of this commitment and the entire purpose of the Context Sensitive Design process.

Throughout the EEU Briefing, TDOT's approach to the alternatives seemed inconsistent with the spirit of Contest Sensitive Solutions. The information presented at the EEU Briefing, the open house meetings, and in discussions with TDOT and URS staff, overstated challenges related to Alternative 2A (e.g., ARC funding, difficulty of construction) but focused only on positive aspects of new construction alternatives (e.g., increased routing options, constructability). On the other hand, the real difficulties and environmental harms associated with new construction have been minimized in discussions and in display materials.

For instance, the difficulties of constructing roadway on a new footprint through terrain characterized by acid-bearing rock have not been adequately addressed. Environmental analysis so far indicates that construction of the alternatives off the existing alignment will result in the exposure of extensive acid bearing rock formations. TDOT has presented the acid rock issue as an easily solvable problem that will not have environmental impacts. Although approaches have been identified to address acid rock and acid drainage from these materials, the effectiveness of these techniques is unproven in the long term and they will, in any event, greatly add to the cost of the project. TDOT has thus far downplayed the environmental and fiscal challenges presented by acid-bearing rock.

Alternatives off the existing alignment will also cross streams that are designated as Exceptional Tennessee Water and Outstanding National Resource Waters by The Tennessee Department of the Environment and Conservation (TDEC). Some of these streams also have high aquatic diversity with rare and state listed species at or downstream of crossing locations. These factors and the potential for impacts to these streams and aquatic species have been inadequately considered in TDOT's recommendation to drop Alternative 2A. Clearly, Alternative 2A will have the least impacts to these streams and aquatic species.

For these reasons, Alternative 2A should be retained as an alternative.

Selective Analysis

TDOT's tendency to minimize challenges of road construction on a new footprint while overstating the problems associated with spot improvements to the existing corridor is further

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²¹ ARC Code at Section 9.1.

²² TDOT Environmental Procedures Manual at 2-2.

²³ Id

illustrated by the detail at which these different alternatives have been analyzed. The difficulties of providing access to the existing alignment while constructing spot improvements under Alternative 2A have been stressed extensively. On the other hand, the difficulties of extensive construction through acid rocks and sensitive habitat have not been adequately acknowledged. For instance, the confined valley around Greasy Creek and elsewhere would present significant engineering and construction challenges that have not been fully identified or analyzed. The fact that the difficulties of some alternatives have been insufficiently detailed should not be used to prejudge the environmental analysis. It is not appropriate to drop prematurely an alternative from the NEPA analysis based on selective analysis of difficulties and impacts. In this regard, TDOT and URS have made public statements indicating that various possible routes north of the Ocoee Gorge are "preferred alternatives." At this stage, the NEPA process has not determined a "preferred alternative" and it is not appropriate to indicate that a preferred alternative has been determined because the analysis has proceeded to a point where alternatives can be compared fairly.

Possible Intermediate Option

Even if it were true that Alternative 2A as currently considered fails to meet some of TDOT's design standards or constructability objectives, it is too soon to eliminate the alternative from detailed consideration without considering options to improve the alternative including, if necessary, a blended alternative that combines elements of Alternatives 2 and 2A. We believe TDOT may have set up a false choice between minimal spot improvements (Alternative 2A) and a full build to a 48-to-60-foot footprint throughout the entire project area (Alternative 2).

More specifically, between Alternatives 2 and 2A there is likely a third, intermediate alternative on the existing highway alignment that would meet transportation needs at less financial cost and less harm to the environment and heritage of the area than Alternative 2 or any of the new alignment alternatives. This alternative would also likely better meet the goals stated by TDOT's Project Vision Statement of "creatively minimize[ing] adverse impacts to the human and natural environment [and] preserving unique attributes of the Cherokee National Forest, Ocoee River, and regional cultural resources." (emphasis added) We believe this element of TDOT's vision statement should be the driving force in shaping alternatives and that it compels TDOT to consider a new, blended alternative and explore other creative solutions as needed to meet the purpose and need while minimizing environmental impacts.

To the extent it proves true (as we describe above, we do not believe it does) that Alternative 2A is fatally flawed because of incurable conflicts with mandatory design standards, we believe a blended alternative could be developed by first identifying each location on the existing highway with a demonstrated safety or design problem. In this context, "design problem" does not mean conflict with an arbitrary standard but rather proven inconsistency with the TDOT's goal of providing a "safe, reliable, and efficient east-west transportation route." Second, creative spot improvements should be evaluated to determine if they can address the deficiency, as proved to be the case with the recent assemblage of safety improvements along the corridor. Third, to the extent spot improvements are infeasible, TDOT must consider whether site-specific variances from design standards can be applied to the site and still provide an acceptable level of safety. To the extent neither discrete spot improvements nor design waivers

are sufficient to address the problem, then a more substantial redesign, as proposed under Alternative 2, may be appropriate for that particular segment of the Corridor.

From our observations along the existing highway, we have determined that the most significant design constraints are focused in an approximately 7-mile segment from Ocoee #3 Dam to Parksville Lake. Even within this stretch, some sections have plenty of room for improvements or could have room for reasonable improvements with minor cuts in the banks. We believe this is a manageable undertaking.

If TDOT looks to develop such a blended alternative, the agency should look at the best innovative practices in design and construction techniques from around the country and incorporate those that best suit the terrain and objectives. Tools such as tunnels, cantilevered bridges, segments with reduced shoulder width, and short segments with waivers from typical design requirements (as is often allowed in tunnels and on bridges), should be considered as merely the starting point rather than the full range of available options—we are confident that other possibilities exist that have not yet been considered or explored.

In short, we challenge TDOT to focus on opportunities to create a showpiece project instead of difficulties. We recognize that this approach would require early and extensive collaboration with the Federal Highway Administration and ARC, but we believe that this approach would result in a better and more implementable project. We hope that TDOT will take advantage of this opportunity to develop an alternative that will "creatively minimize adverse impacts to the human and natural environment, preserving unique attributes of the Cherokee National Forest, Ocoee River, and regional cultural resources."

Construction Difficulties

As was the case with design challenges, TDOT has overemphasized constructability challenges associated with Alternative 2A. TDOT has focused on the difficulties of maintaining traffic on the existing highway while constructing spot improvements but seems to assume that construction on other alternatives will be smooth and difficulties will not arise. Using innovative construction techniques like temporary bridging, focused short-term closures, improvements to alternative routes to prepare them for temporarily increased traffic during construction on 64, and other approaches could allow construction on the existing footprint with minimal disruption. In any case, potential construction difficulties are not a legitimate basis to eliminate options at this early stage.

ARC Funding Issue

In many of its discussions and materials, TDOT has raised the argument that ARC will not fund spot improvements and therefore options that do not consist of a complete, end-to-end widening or new construction project cannot be considered. This argument is misplaced and an inappropriate consideration at this stage of NEPA. We have found no legal basis for the conclusion that ARC is precluded from funding improvements, and none has ever been articulated to us, despite exhaustive research and repeated inquiries.

While ARC funds are cost-to-complete funds not eligible for improvements to completed components of the ADHS system, that prohibition applies to roadways already completed with ARC funds in the first instance.²⁴ Nothing in the Appalachian Regional Development Act²⁵ or even in the ARC Policy limits expenditure of ADHS funds to ADHS projects of a particular scope or prohibits use of ADHS funding on spot improvements to bring an existing roadway. built without ARC funds, to ADHS standards. Furthermore, if ARC has made a policy choice, not required by its authorizing legislation, to deny ADHS funding for improvements required to bring existing roadways up to ADHS standards for inclusion in the ADHS network, that decision to exclude alternatives which otherwise meet the purpose and need of a project carries potentially significant impacts to the human environment and is subject to NEPA documentation and decision-making requirements.

Furthermore, TDOT, FHWA and ARC are all obligated as part of this NEPA process to consider "reasonable alternatives not within the jurisdiction of the lead agency." Thus, Alternative 2A must be given full consideration even if it were true that ARC must seek a change in law or policy to fund the project or that TDOT must find another (non-ARC) source of funding. NEPA requires analysis of all practicable alternatives, not merely the ones for which a preferred funding stream has been identified.

Finally, if the unavailability of committed funding were a legitimate basis for excluding alternatives from detailed consideration, then all the current alternatives would have to be eliminated. There is not currently enough ADHS money in the bank to build 80% of any option under consideration, and there are a substantial questions whether any more ADHS money will be forthcoming and whether the state can fund its 20% required match. Thus, if spot improvements alternatives can be eliminated because no funding source that can cover the costs has been identified, then all the other alternatives suffer the same fatal flaw and must also be eliminated.

Conclusion

For all the reasons stated above, we believe that TDOT must not eliminate Alternative 2A from detailed consideration in the upcoming environmental review. We believe that Alternative 2A meets the purpose and need and suffers no irremediable design or other deficiencies. Even to the extent Alternative 2A ultimately proves unworkable, TDOT should develop a blended "intermediate" alternative on the existing U.S. Highway 64 that is more extensive than Alternative 2A but less destructive than Alternative 2.

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²⁴ See ARC ADHS Q&A.²⁵ 40 U.S.C. § 14501(a).

²⁶ 40 C.F.R. § 1502.14(c).

We look forward to continued discussion of this project. We would like to be kept informed of the progress of the analysis of the Tennessee sections of Corridor K, associated state and federal compliance activities and opportunities to comment further. Please do not hesitate to contact us. Thank you for the opportunity to submit these comments.

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