

MEMORANDUM OF AGREEMENT
among the
EASTERN FEDERAL LANDS HIGHWAY DIVISION
of the
FEDERAL HIGHWAY ADMINISTRATION
and the
WEST VIRGINIA, VIRGINIA, KENTUCKY and OHIO STATE HISTORIC
PRESERVATION OFFICES
regarding
the
HEARTLAND CORRIDOR RAIL CLEARANCE PROJECT
Walton, Virginia to Columbus, Ohio

WHEREAS, in Public Law 109-59, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Section 1301(m)(2) describes this project as: “Heartland Corridor Project including multiple intermodal facility improvements and improvements to facilitate the movement of intermodal freight from VA to OH”, and SAFETEA-LU, Section 1702, Project No. 5072 further described this project as: “Double stack clearance of tunnels on the Norfolk and Western Mainline in Virginia located on the Heartland Corridor”; and

WHEREAS, SAFETEA-LU allocates funds to be utilized to provide vertical and horizontal clearance through existing tunnels and bridges for freight trains carrying double stacked, standard freight containers on the existing Norfolk Southern Railway Company (NS) mainline rail corridor between Walton, Virginia, and Columbus, Ohio; and

WHEREAS, this undertaking is to modify existing tunnels and bridges to provide double stack vertical and horizontal clearance on the NS mainline between Walton, Virginia, and Columbus, Ohio, and does not include construction of any intermodal facilities, stations, sidings or other rail facilities; and

WHEREAS, the Federal Highway Administration (FHWA) is the lead federal agency for implementation of this rail clearance project; and

WHEREAS, NS and the FHWA executed a Memorandum of Agreement on August 8, 2006, establishing the working relationship and responsibilities to implement the undertaking, and documents the ability of the FHWA to undertake actions with and for NS on NS property (see attachment A); and

WHEREAS, the FHWA has consulted with the West Virginia, Virginia, Kentucky, and Ohio State Historic Preservation Offices (SHPOs); and

WHEREAS, the West Virginia Division of Culture and History, which in WV is the WV SHPO, the Virginia Department of Historic Resources, which in VA is the VA SHPO, the Kentucky Heritage Council, which in Kentucky is the KY SHPO and the Ohio Historic Preservation Office, which in Ohio is the OH SHPO, and the FHWA have agreed that the

NS mainline railroad corridor between Walton, Virginia, and Columbus, Ohio, is eligible for listing in the National Register of Historic Places; and

WHEREAS, the FHWA has determined, in consultation with the WV SHPO, VA SHPO and KY SHPO, that the proposed undertaking will have an adverse effect upon contributing resources of the NS mainline railroad corridor; and

WHEREAS, the FHWA has consulted with the Ohio SHPO regarding the railroad corridor in Ohio and have agreed that the effect of the undertaking on the corridor in Ohio (when considered alone) would not be adverse to the corridor, and because the corridor is considered a single property located in four states, and there is an adverse effect upon the property by this undertaking (due to actions in the other three states), Ohio has agreed to participate in this consultation and be a signatory of this Memorandum of Agreement (MOA) so its participation and the effect in Ohio will be documented; and

WHEREAS, in accordance with 36 CFR Section 800.6(a)(1), the FHWA has notified the Advisory Council on Historic Preservation (Council) of its adverse effect determination with specified documentation and the Council has chosen not to participate in the consultation pursuant to 36 CFR Section 800.6(a)(1)(iii); and

WHEREAS, the FHWA has determined that areas of this undertaking are located within the aboriginal territory of the Cherokee Tribe, the FHWA has consulted with the Eastern Band of Cherokee Indians, the Cherokee Nation of Oklahoma, the United Keetoowah Band of Cherokee Indians and the Virginia Council on Indians and all have declined to participate in this consultation, however, all have requested notification should Native American artifacts or human remains be inadvertently discovered; and.

WHEREAS, the FHWA has notified the public regarding this undertaking through postings on its web site as well as that of the National Coal Heritage Area Authority (Authority); and

WHEREAS, the FHWA has contacted and continues to work and consult with the Authority through its active relationship and current projects with counties, municipalities and other consulting parties in the area of the undertaking, and will continue to solicit and consider local input, particularly regarding distribution and placement of historic documentation related to this undertaking; and

WHEREAS, the FHWA has coordinated with the Pulaski County, Virginia, Historical Society and Pulaski County, Virginia, regarding this undertaking, and they have both declined to participate in this consultation, but they have agreed to assist and coordinate with FHWA regarding distribution and placement of historic documentation (when they are available) related to this undertaking; and

WHEREAS, the FHWA has determined that the effects of the undertaking cannot be avoided and that all reasonable measures have been taken to minimize adverse effects on historic properties; and

WHEREAS, current plans are to restrict construction work and disturbance to the existing, previously disturbed limits of the railroad bed, track, bridges and tunnels, (except for Big

Four No. 2 tunnel in West Virginia, where the tunnel overburden, naturally sloping at greater than 20 percent will be removed), the possibility nevertheless exists that historic properties could inadvertently be discovered during construction activities, these will be governed by the inadvertent discovery clauses in NAGPRA, 36 CFR Section 800.2 and stipulations of this MOA; and

NOW THEREFORE, the FHWA, WV SHPO, VA SHPO and KY SHPO agree that the following stipulations shall be implemented to mitigate the adverse effects of the undertaking on the rail corridor. The FHWA shall ensure that the terms and conditions of this MOA are implemented in a timely manner and with adequate resources in compliance with the National Historic Preservation Act of 1966, as amended (16 U.S.C . 470).

STIPULATIONS

FHWA shall ensure the following stipulations are carried out.

I. MITIGATION

- A. The FHWA shall ensure that a survey and documentation of the 112 individual tunnel and railroad bridges listed on attachment B and a general history of the railroad corridor between Cowan, Virginia and Bull, West Virginia will be completed within 12 months of the last signature date of this MOA. The FHWA shall ensure that the survey and documentation consist of the following:
1. A written record of the general history, people and companies involved in the railroad's construction, maintenance and ownership between Cowan, Virginia and Bull, West Virginia (and the appropriate national, state and regional context of this section of rail line) based on research of available records held by the respective states, counties in the corridor and Norfolk Southern Corporation.
 2. A photographic record and a completed site survey form, (form and completion requirements appropriate and meeting the standards for the state in which the element is located) for each contributing element on the attached list (see attachment B). The photographs shall be 8" by 10" black and white (or alternate size as approved by the respective SHPO) and meet the respective state's standards. At each individual tunnel a photograph will be provided of each portal, for bridges, one photograph will be provided of each elevation (side view).
 3. Sketch drawings of the following stone masonry tunnel portals indicating the width and height of the portal structure as well as the width, height and arch dimensions of the tunnel opening: Cowan, Pembroke, Cooper, Williamson and Big Sandy Number 4.
 4. A partial United States Geological Survey based map with site location arrow for each individual tunnel or bridge location and quadrangle name.

The appropriate state site identification number will be included on all documentation and photographs.

The FHWA shall ensure that 40 hard cover, bound copies of the history and photographic record of the recorded elements are produced and distributed to public libraries in the railroad corridor, each of the four state SHPOs, each of the four state libraries/archives and other signatories of this MOA.

FHWA will coordinate with the Authority, the Pulaski County, Virginia, Historical Society, Pulaski County, Virginia, and local jurisdictions in West Virginia and Kentucky for distribution of documentation as well as wording and placement of interpretive signs (see items B., C. and D. below).

The photographic record, history and final site forms will be submitted to the WV SHPO, VA SHPO and KY SHPO and shall comply with the respective state's archival standards for such material.

The individual site surveys and documentation shall be completed and accepted by the respective SHPOs prior to the start of any construction work at the individual site location. The respective SHPOs shall have thirty (30) days upon receipt of the complete documentation package in which to comment on the material. If the WV SHPO, VA SHPO or KY SHPO do not respond within the 30 days, FHWA shall assume concurrence and proceed.

The principal investigator/researcher responsible for completing the research, documentation and field investigation will meet professional qualifications standards outlined in the *Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation* (36 CFR Part 61, Appendix A).

- B.** Provide an electronic record of the documentation and photographs suitable for posting on state and local web sites. FHWA shall pursue opportunities to post an electronic record of the documentation and photographs on appropriate state and local web sites such as the VA Department of Rail and Public Transportation and related agencies in the four states, county historical societies along the rail corridor and railroad related historical and interest groups in the four states. FHWA shall report to the WV SHPO, VA SHPO, KY SHPO and OH SHPO within twelve (12) months after execution of this Agreement the web sites hosting the documentation and photographs.
- C.** Pursue providing and installing one standard, cast metal, historic highway marker in the vicinity of Cowan, Virginia. The text for this marker will be determined in consultation with the VA SHPO. Location and installation of the marker in highway right of way will be coordinated and approved by the Virginia Department of Transportation. FHWA shall submit an application for an historic marker to VA SHPO within twelve (12) months after execution of this Agreement.
- D.** Provide and install ten interpretive markers at five different, publicly accessible sites, on public property in West Virginia, with the specific locations as well as size and format to be agreed upon by the WV SHPO, the Authority, the local government having jurisdiction of the sign site area and FHWA. The interpretive

markers will describe, through graphics and writing the history of the railroad and its connection to the local area's history and economy. The markers will be mounted on pedestals or attached to existing site features such as retaining walls or pavements. The markers will become the property of/and be maintained by a designated local jurisdiction. The text and graphics for each marker will be determined in consultation with the WV SHPO and the Authority. Should any of these interpretive markers be proposed for placement in the right of way of a roadway under the jurisdiction of the West Virginia Department of Transportation (WVDOT), the WVDOT will be consulted and its approval obtained for the location and construction/installation details of such marker. Subject to approval of sign placement by the land owner/manger of the land on which the sign is to be installed, the interpretive markers will be installed within 18 months of the last signature date of this MOA.

II. POST REVIEW DISCOVERIES

- A. FHWA shall implement the following plan for discovery of historic properties should the proposed undertaking encounter a previously unknown historic property, or should the undertaking directly or indirectly affect a known property in an unanticipated manner. Initially, all work within 200 feet of the find that might adversely affect the historic property shall cease until FHWA, in consultation with the SHPOs (and notification to the other consulting parties), can evaluate the historic property's National Register eligibility and the probable effects to it. FHWA shall also consult with the SHPOs and other consulting parties to evaluate the discovery and to determine whether avoidance, data recovery, or other mitigation measures should be undertaken. Consultation shall also determine if and when work at the location of the discovery may resume. If a property has been determined to be damaged by the undertaking, the resource shall be evaluated for National Register eligibility. If eligible, a site damage assessment shall be completed by a qualified archaeologist pursuant to 36 CFR Section 800.2(a)(1). All signatories shall review this report. FHWA in consultation with the SHPOs and other consulting parties shall recommend appropriate mitigation measures in the site damage assessment.
- B. The FHWA shall ensure that the design and initiation of data recovery or other mitigation measures shall be implemented as expeditiously as possible and with the SHPOs' approval. Mitigation measures shall be arrived at through consultation and agreed upon by all parties to the consultation. If data recovery is the selected treatment option, FHWA shall ensure that the plan is developed in consultation with the appropriate SHPO and other consulting parties and is consistent with the Council's Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites (April 2002). In the event a dispute arises with regard to appropriate mitigation measures, FHWA shall consult with the Council in accordance with Stipulation VII to resolve the issue.

III. DISCOVERY OF HUMAN REMAINS AND ASSOCIATED CULTURAL ITEMS

- A. FHWA shall ensure that appropriate consideration is also given to the possibility that

historic period as well as Native American remains may be discovered. If human remains are identified during construction, the FHWA shall require that construction be halted immediately at the location of the remains. FHWA shall ensure that further construction does not occur within 200 feet in any direction of the discovery until a qualified archeologist arrives to assess the discovery. FHWA will secure the area of the apparent human remains to ensure no further disturbance or removal of those remains and associated material occurs. FHWA shall also ensure that vehicular traffic across the area is restricted to a location removed from the discovery. After arrival at the site, the cultural resource specialist shall evaluate the discovery. If it does consist of human remains, the cultural resource specialist shall follow the procedures as follows:

- If human remains and cultural items, as defined by the Native American Graves Protection and Repatriation Act (NAGPRA), are encountered on Federal lands during inventory, testing, data recovery or any construction-related activities, work within 200 feet of the discovery would cease. FHWA would immediately notify the SHPO and all other signatories and consulting parties of the discovery. The appropriate Federal land-managing agency would then implement internal procedures for complying with NAGPRA.
- On non-federal lands, or in the event that human remains not subject to NAGPRA are discovered on Federal lands, a permit for the archaeological removal of human remains may be required under applicable Virginia, West Virginia and Kentucky law, together with assurances that any such remains will be treated with dignity and respect.

IV. UNDERTAKING MODIFICATIONS

- A. It may be possible that during construction that certain minor modifications to the undertaking may become necessary. Examples of these modifications include rerouting to avoid other environmental impacts, temporary construction, the establishment of construction camps or staging areas, minor changes in access routes or rights-of-way, borrow areas and other construction contractor-dependent actions. FHWA shall ensure that any area scheduled for surface disturbance would be inventoried for cultural resources prior to any disturbance of the area, conforming to this agreement as well as state and federal regulations. A separate cultural resource inventory report(s) may be necessary to cover additional surveys. Review and comment on this report(s) would follow existing regulations. Should cultural resources be recorded, FHWA would follow the provisions of this agreement and applicable state and federal regulations for determinations of eligibility and effect.
- B. Should historic properties be identified during an additional inventory, FHWA shall attempt to move the impacting activity, modify the activity to reduce or eliminate adverse effects, or if possible, cancel the activity. Should none of these options be possible, FHWA shall prepare a treatment plan in consultation with

the WV SHPO, VA SHPO or KY SHPO, which ever is appropriate.

V. INITIATION OF CONSTRUCTION ACTIVITIES

- A. After FHWA has concurrence from the SHPOs and all other signatories for the final inventory report, which includes recommendations for eligibility and effect, some construction activities would be allowed to proceed in those portions of the area of the undertaking where no effect to historic properties is expected. The location of these areas and the allowable construction activities would be determined by FHWA in consultation with the SHPOs.
- B. These construction activities would be subject to the requirements in Stipulation II regarding post-review discoveries and Stipulation III regarding human remains.

VI. AMENDMENTS TO AGREEMENT

- A. Any signatory to this MOA, through consultation, may request an amendment to its terms, and the provisions of any attachment hereto. The signatory wishing to amend the MOA shall initiate consultation with FHWA.
- B. FHWA shall consult with the signatory submitting the suggested amendment, and if there is agreement, submit the amendment to all signatories for a concurrent review and signature. The signatories shall have thirty (30) calendar days from receipt to provide comment to FHWA. After review and signature, each signatory advises FHWA of their decision, who shall prepare a final amendment form with a compiled signature page and send it to all signatories.
- C. Upon execution of the amendment, each signatory shall attach a copy of the fully executed form to their copy of this MOA, and shall enter the amendment number and date on the upper-right-hand corner of the first page of this MOA.
- D. Should a dispute arise concerning an amendment, the procedures in Stipulation VII shall be followed to resolve the dispute.

VII. DISPUTE RESOLUTION

- A. Should any party to this MOA object within thirty (30) calendar days to any actions proposed pursuant to this MOA, FHWA shall inform all signatories of the nature of the dispute and consult with the objecting signatory to resolve the objection. If FHWA determines that the objections cannot be resolved, FHWA shall forward all documentation relevant to the dispute to the Council, and inform all signatories of the status of the dispute. Public objections will also be considered by the FHWA in this process. Within 30 calendar days after receipt of all pertinent documentation, the Council shall:
 - 1. Provide FHWA with recommendations, which FHWA shall take into

account in reaching a final decision regarding the dispute; or

2. Notify FHWA that it shall comment pursuant to 36 CFR Section 800.7(c), and proceed to comment. Any Council comment provided in response to such a request shall be taken into account by FHWA in accordance with 36 CFR Section 800.13 with reference to the subject of dispute.

3. Advise the FHWA that the Council concurs in the FHWA's proposed response to the objection, whereupon the FHWA shall respond to the objection accordingly.

- B. Any recommendation or comment provided by the Council shall be understood to pertain only to the subject of the dispute. Responsibilities to carry out all actions under this MOA that are not the subject of the dispute shall remain unchanged.

VIII. TERMINATION

- A. Only the signatories may terminate this MOA. If any such signatory proposes termination of this MOA, the signatory party proposing termination shall in writing notify all other signatories to this MOA, explain the reasons for proposing termination, and consult with all other signatories for at least 30 calendar days to seek alternatives to termination. Should such consultation result in an agreement on an alternative to termination, the signatories shall proceed in accordance with the terms of that agreement.
- B. Should such consultation fail, the signatory party proposing termination may terminate this MOA by promptly notifying all other signatories to this MOA in writing. Termination hereunder shall render this Agreement null and void.
- C. If this MOA is terminated hereunder and if FHWA determines that the undertaking shall nonetheless proceed, then FHWA would either consult in accordance with 36 CFR Section 800.6 to develop a new Agreement or request the comments of the Council pursuant to 36 CFR Part 800.

IX. DURATION OF THIS AGREEMENT

- A. Unless this MOA is terminated pursuant to Stipulation VIII or superseded by another agreement executed for the undertaking, or the undertaking has been terminated, this MOA shall remain in effect for a period of five years from the date of the last signature. Upon a determination by FHWA that construction of all aspects of the undertaking have been completed and that all terms of this MOA have been fulfilled in a satisfactory manner, FHWA shall notify the other signatories of this determination in writing, whereupon this MOA shall no longer be in affect.

- B. At least six months prior to the date of expiration of this MOA, the consulting parties should discuss the need to amend or alter the MOA.

Execution and implementation of this Agreement evidence that FHWA has afforded the Council an opportunity to comment on the undertaking and that FHWA has taken into account the effects of this undertaking on historic properties. Prior to six months from the date of expiration, the consulting parties should discuss the need to amend or alter the agreement. This agreement shall become effective upon the date of the last signatory's signature.

SIGNATORIES:

WEST VIRGINIA DEPARTMENT OF CULTURE AND HISTORY

Signature:



Date:

7/30/07

Susan M. Pierce, Deputy West Virginia State Historic Preservation Officer

VIRGINIA DEPARTMENT OF HISTORIC RESOURCES

Signature:



Date:

8/7/07

Kathleen S. Kilpatrick, Virginia State Historic Preservation Officer

KENTUCKY HERITAGE COUNCIL

Signature:



Date:

08/09/07

Donna M. Neary, Executive Director, Kentucky Heritage Council and State Historic Preservation Officer

OHIO HISTORIC PRESERVATION OFFICE

Signature: 

Date: 8/22/07

Mark Epstein, Department Head, Resource Protection and Review, Ohio Historic Preservation Office

FEDERAL HIGHWAY ADMINISTRATION

Signature: 

Date: 16 Aug 07

Melisa L. Ridenour, P.E. Division Engineer, Eastern Federal Lands Highway Division, FHWA

CONCURRING PARTIES:

NATIONAL COAL HERITAGE AREA AUTHORITY

Signature: 

Date: 8/28/07

Christy Bailey, Executive Director, National Coal Heritage Area Authority

WEST VIRGINIA DIVISION OF HIGHWAYS

Signature: 

Date: 8/31/07

for the West Virginia Division of Highways

MOA ATTACHMENT A

AGREEMENT No. DTFH71-06-X-00018¹

Memorandum of Agreement

between

Norfolk Southern Railway Company

and the

Department of Transportation,
Federal Highway Administration,
Eastern Federal Lands Highway Division

for the

Environmental Planning, Design and Construction
of the Heartland Corridor Project

PURPOSE OF THE AGREEMENT

The purpose of this Agreement is to establish the roles, responsibilities, funding, and procedures by which Norfolk Southern Railway Company (the "Railroad") and the United States Department of Transportation, Federal Highway Administration, Eastern Federal Lands Highway Division (the "EFLHD"), (collectively hereinafter referred to as the "Parties"), will jointly participate in the environmental planning, design, and construction of the Heartland Corridor - a project to increase freight capacity on the vital Virginia to Ohio route.

The "Clearance Project" portion, (for purposes of this Agreement hereinafter referred to as the "Project"), consists of all work to allow double-stacked freight trains to run between the Hampton Roads region in Virginia and Columbus, Ohio. A double-stacked freight train is a train configured to carry two layers of standard freight containers. The Project does not include work at rail facilities, nor at any stations or sidings along the route. The EFLHD is responsible for the coordination and facilitation of the overall schedule for the entire Project, as well as for the management of the Federal funding. Only certain portions of the work will be paid for in part with Federal funds, as noted below. The design and construction of the Project will be done by the Railroad.

BACKGROUND - LEGISLATIVE HISTORY

The Project is described twice in Public Law 109-59, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). At Section 1301(m)(2) it is described as: "Heartland Corridor Project including multiple intermodal facility improvements and improvements to facilitate the movement of intermodal freight from VA to OH." At Section 1702, Project No. 5072, it is described as: "Double stack clearance of tunnels on the Norfolk and Western Mainline in Virginia located on the Heartland Corridor."

In addition, Section 1301(a), Findings, at Subsection (a)(4) also states: "Projects of national and regional significance have national and regional benefits, including improving economic productivity by facilitating international trade, relieving congestion, and improving transportation safety by facilitating passenger and freight movement."

AUTHORITIES

WHEREAS, Congress has authorized \$95 million for this Project in Public Law 109-59, SAFETEA-LU; \$90 million under Sections 1301(m)(2) and \$5 million under 1702, Project No. 5072;

WHEREAS, Norfolk Southern Railway Company has authority to design and construct renovations to its rail corridor;

WHEREAS, the States of Virginia, West Virginia, and Ohio (the "States") have agreed under a separate Memorandum of Agreement to request the funds as required under those Sections of Public Law 109-59 and to authorize the transfer of those funds to the EFLHD under authority of Title 23, United States Code, Section 104 and the legislative authority given to their respective Departments of Transportation;

WHEREAS, Title 23 United States Code, Section 308(a) authorizes the United States Secretary of Transportation to perform engineering or other services in connection with the survey, design, construction, and improvements of highways for other Federal or State cooperating agencies, and "highways" has been interpreted to include surface transportation projects such as this one; and whereas that authority has been delegated to the Federal Highway Administration by authority of Title 49, Code of Federal Regulations, Section 148; and whereas that authority has been delegated to the Federal Lands Highway Program and to the Eastern Federal Lands Highway Division by authority of FHWA Order M1101.1A, Chapters 4 and 6;

WHEREAS, the Federal funds authorized by this project are being used to achieve significant public benefits, including the reduction of congestion, the improvement of safety, and the improvement of the health and welfare of the national economy;

WHEREAS, the Railroad is not providing EFLHD any services or any property in exchange for such Federal funds, but will abide by the terms of this agreement as a condition of receipt of the

Federal funds; and

WHEREAS, the parties intend to be fully bound by the terms and conditions set forth herein.

NOW THEREFORE, the Railroad and the EFLHD do hereby mutually agree as follows:

ARTICLE I: SCOPE OF WORK (Obligations, Responsibilities, and Funding)

A. The Railroad agrees to:

1. Participate in the environmental review by the EFLHD, including public involvement as applicable, and shall cooperate in the efforts of the EFLHD to obtain the required final environmental clearances. The Railroad will cooperate with the EFLHD to the extent practicable with regard to assistance and support in the preparation and/or revision of environmental reports or other documents, and in the defense of any environmental litigation resulting from the planning, design, and/or construction of the Project.
2. Develop, in coordination with the EFLHD, a Financial Management Plan, as required by the FHWA for all projects over \$100 million, in order to clarify financial commitments and procedures.
3. Develop, in coordination with the EFLHD, a Project Management Plan, as determined appropriate for this type of project, in order to clarify resource and schedule commitments and procedures.
4. Prepare monthly written status reports for the Project, including a detailed financial accounting, schedule update, contracting activities, and other status information requested by the EFLHD. Provide an opportunity for field reviews when requested by the EFLHD.
5. Award and administer contracts for the design, construction, and/or contract administration of those portions of the Project that Railroad does not normally perform with its own forces. The Railroad will be responsible for the administrative settlement or adjudication of any claims arising from contracts awarded by the Railroad. Reimbursement for any such costs will be subject to the availability of project funds.
6. Prepare design and construction plans, specifications, and estimates ("Plans") for the Project. The Plans shall conform to all applicable Federal and State regulatory standards. The Plans shall be submitted to the EFLHD at 70% and 95% for review by EFLHD, which will coordinate review of the Plans with the appropriate State. Railroad shall also submit Final Plans to EFLHD for approval. When Final Plans are approved by EFLHD, the Railroad will submit the bid package for posting, as set forth in subsection 11, below. The Railroad shall not proceed with construction advertisement until it receives written approval to proceed from the EFLHD. Any work commenced prior to the receipt of

approval from the EFLHD shall be at the risk of the Railroad, including the risk of non-payment of Federal funds for unapproved work. The Plans may be amended by the Railroad upon request to and written approval from the EFLHD.

7. Utility Relocation Costs – As between the Railroad and EFLHD, the Railroad shall be solely responsible for any identified utility relocation costs. EFLHD recognizes that the Railroad may require utilities to relocate facilities at their expense, or to reimburse Railroad for the cost of relocating these facilities, as required by law or as set forth in whatever agreements may exist between the Railroad and the utilities.
8. Grade Crossings - The Railroad certifies that it will conform to all applicable Federal and State specifications and regulations in its work on any public grade crossings, to the satisfaction of the EFLHD.
9. Certify that it has obtained prior to the commencement of construction any and all rights-of-way necessary for construction of the Project. The Railroad will be responsible to record any conveyance of right-of-way in the appropriate government office and be responsible for any recording fees and transfer taxes. Rights-of-way shall be acquired in accordance with all applicable Federal and State laws, policies and procedures.
10. The Railroad shall obtain from the appropriate governmental agencies all necessary clearances, permits, licenses, and other approvals necessary to proceed with the construction phase of the Project prior to the commencement of the Project construction, except for any approvals that EFLHD agrees to obtain pursuant to Section B of this Article I.
11. In selecting construction contractors, the Railroad will ensure that:
 - a. contracting is done competitively in accordance with the Federal Acquisition Regulations;
 - b. the contracts contain no restrictions on local hiring;
 - c. bid packages are sent to EFLHD so that solicitations may be posted on State DOT websites and linked to a Federal website as allowed;
 - d. contractors meet State licensing requirements to the extent such requirements can be met after bid opening but prior to award of the contract; and
 - e. the total cost of contracts awarded will not exceed the sum of Railroad's total capital improvement budget authorization for the Project, plus any reimbursement pursuant to this Agreement.
12. Construction Inspection - The Railroad, with its own forces or by contract, shall provide staff to adequately inspect and supervise all construction work for the Project. Proper supervision and construction inspection must be provided to ensure that all Project work is completed in accordance with the Plans and in compliance with applicable State and Federal regulatory requirements.
13. Buy American Act - Materials furnished will be provided in accordance with the

requirements of the Buy American Act. All steel materials or steel products must be of domestic origin or manufacture, as set forth in the Buy American Act.

14. Disadvantaged Business Enterprise - The Railroad shall follow EFLHD's guidance and directives to ensure that construction contracts contain disadvantaged business and small business subcontracting provisions in compliance with the requirements of the Federal Acquisition Regulations (FAR), including the submission for approval of a small business and disadvantaged business subcontracting plan, as required by Part 19 of the FAR.
15. Maintenance Requirements - Assume all future maintenance and liability for improvements to Railroad-owned facilities and property, including structures carrying Railroad facilities, signalization (signals), crossing surfaces, and any other maintenance responsibilities as may be assigned in connection with utilities.
16. Records - The Railroad and its consultant and/or contractor shall maintain all books, documents, papers, records, supporting cost proposals, account records, electronic employee payroll records, and other evidence pertaining to the Project costs, and shall make such materials available to the Parties to this Agreement or their designees for inspection and audit at all reasonable times during the contract period and for three (3) years after the date of final payment to any contractor, whichever is later in time. For hourly employees of Railroad, a complete record shall also be kept for personnel assigned part-time to the Project, which record shall include such personnel's time dedicated to work outside of the Project. In addition, the computation of overhead costs will be supported by audit.

B. The EFLHD agrees to:

1. Coordinate the overall schedule for the entire Project and facilitate cooperation among the Parties and the Railroad.
2. Accept and manage Federal funding for the Project and reimburse Railroad for its eligible costs in accordance with Article II of this Agreement.
3. Act as the lead agency for the coordination, preparation, and approval of the environmental documentation required pursuant to the National Environmental Policy Act (NEPA), 23 CFR §771, 49 U.S.C. §303, and Section 106 of the National Historic Preservation Act (including environmental documentation, 4(f) statement, and Section 106 statement) for the Project.
4. Select consulting services, as appropriate, for environmental planning assistance using procurement procedures in accordance with the Federal Acquisition Regulation (FAR), and the Transportation Acquisition Regulation (TAR).

5. Provide a quarterly status report to the Railroad and the State DOTs, both written and oral (face-to-face, videoconference, or teleconference), on the overall management of the Project. The report will detail, at a minimum, the financial status, schedule, and current and upcoming contracting activities of the Project, as well as any specific issues that have arisen.
6. Provide a Special Project Manager to coordinate day-to-day administration, including technical issues, of the Project. Technical issues will be discussed between the Parties as issues arise.
7. Review and approve the Financial Plan to be prepared by the Railroad for the Project.
8. Work jointly with the Railroad to determine appropriate action regarding a Project Management Plan.
9. Serve as a representative of the State DOTs on any consultant selection panel convened by the Railroad.
10. Ensure to the maximum extent possible that:
 - a. design and construction work will be contracted out, except work that is normally done by the Railroad's employees. (It is recognized that decisions regarding whether to contract for construction engineering and inspection must be made by the Railroad.)
 - b. contracting is done competitively and that the contracts contain no restrictions on local hiring.
 - c. solicitations are posted on State DOT websites and linked to a Federal website as allowed;
 - d. contractors meet State licensing requirements to the extent such requirements can be met after bid opening but prior to award of the contract;
 - e. contracts contain disadvantaged business and small business subcontracting provisions in compliance with the requirements of the Federal Acquisition Regulations (FAR), including the submission for approval of a small business and disadvantaged business subcontracting plan, as required by Part 19 of the FAR.
11. Receive from the Railroad and provide to the State DOTs for review as appropriate the plans, specifications, and estimates, along with other necessary design documents for review and comment at the normally scheduled milestone completion percentages.
12. Approve the annual budget of the State DOTs for their anticipated costs.
13. Require its employees, contractors, and agents to comply with any job site safety training and safety requirements of the Railroad.

C. Responsibility of the Parties

1. Both Parties to this Agreement shall agree to cooperate with each other and with their respective Contractor(s) so as to coordinate their respective schedules in an effort to not delay the completion of the Project.
2. Both Parties to this Agreement will be afforded the opportunity to inspect, review and comment on, at any time, work in progress, the financial records, and any other supporting documentation; and to participate in all meetings and field reviews.

ARTICLE II. FUNDING AND REIMBURSEMENT

The respective financial obligations of the parties under this Agreement shall be as follows:

- A. The Heartland Corridor Project is subject to and contingent upon the funds identified under Sections 1301 and 1702 of Public Law 109-59 (SAFETEA-LU) being transferred to the EFLHD for administration and the approval by the Board of Directors of Railroad's parent, through its capital improvement budget authorization process, of sufficient monies to fund the difference between the total Project cost and the actual Federal reimbursement provided under this Agreement. Failure to obtain the funds as required by law or the Railroad's internal processes shall relieve the Parties of their obligations under this Agreement.
- B. Congress has authorized \$95 million for this Project in Public Law 109-59, SAFETEA-LU. Under Section 1301(m)(2), Congress authorized \$90 million for the work of the Project; and under Section 1702, Project No. 5072, Congress authorized \$5 million for the work in Virginia. Both Sections authorize an annual distribution. For Section 1301, funds are distributed as follows: for fiscal year 2005 -- 10%, for fiscal year 2006 -- 20%, for fiscal year 2007 -- 25%, for fiscal year 2008 -- 25%, and for fiscal year 2009 - 20%. For Section 1702, funds are distributed at 20% per fiscal year. In addition, for fiscal years 2005 and 2006, Congress has imposed an obligation limitation in order to protect the funds in the Highway Trust Fund. This results in a reduction of the available funds that are set for each year. For fiscal year 2005, the obligation limitation was 85.5%. For fiscal year 2006, the obligation limitation was 87%. It can be assumed that Congress will impose an obligation limitation in future fiscal years as well. Finally, for funds available in fiscal year 2006, Congress imposed an additional 1% rescission of funds to all Federal funding categories, in order to provide for emergency supplemental appropriations to address damages from the hurricanes in the Gulf in 2005 (Public Law 109-148).
- C. Federal funding available for the Project requires a "State match" of 20%, which for Section 1301 funds will be provided by the Railroad and for Section 1702 by the State or the Railroad.
- D. The EFLHD will provide Federal funding up to 80% of the total Project costs, up to the amount available under the law, as discussed above. EFLHD's costs for the environmental

review and general project oversight are to be reimbursed out of this 80%. The Railroad shall be responsible for the remaining total cost of the Project. To ensure that the total cost of the Project less the amount of actual Federal reimbursement is within its capital improvement budget authority, Railroad reserves the right to reject bids, re-bid the Project or portions thereof as appropriate, re-design the Project or portions thereof as appropriate, or take such further reasonable measures as may be appropriate under the circumstances.

- E. The Railroad agrees to make its invoices and supporting records available for Federal audit.
- F. The Railroad may bill the EFLHD no more frequently than every thirty (30) days for any and all actual and approved costs within the scope of the Project. The Railroad, for the purpose of reimbursement, shall submit to the EFLHD on a monthly basis:
 - a) Certified invoices, including proof of allowable costs, for work performed by the Railroad forces on the Project. The proof of allowable costs may include but not be limited to, time sheets, material invoices and equipment records of the Railroad. Invoices shall be deemed certified when they are signed and dated by an authorized representative of the Railroad.
 - b) Certified invoices already paid by the Railroad based on current estimates of the work performed on the Project by the Railroad's contractors and/or consultant. Copies of the estimates will be included with the invoices. Invoices shall be deemed certified when they are signed and dated by an authorized representative of the contractor or consultant.

Upon receipt of such invoices, the EFLHD will promptly make payment to the Railroad after review and approval of the invoice.

- G. The EFLHD and the Railroad understand that the Federal funds are available as follows: 30% in 2006; 25% in 2007, 25% in 2008, and 20% in 2009. Unused prior year funds may be expended in the current year, but subsequent year funds cannot be disbursed until the appropriate federal fiscal year.
- H. Nothing in this Agreement shall preclude the Railroad from submitting bills for costs incurred by in-house forces necessary to accomplish the Project. Proof of costs incurred or payments by the Railroad must be submitted along with the request for reimbursement under this Agreement.
- I. The Railroad, by executing this Agreement, certifies that it has on hand sufficient funds to meet all of its obligations under the terms of this Agreement, and that it, not the other Parties to this Agreement, shall provide all funds needed to pay any costs incurred in excess of those costs eligible for Federal participation and shall bear all excess costs, subject to Railroad's right to control, reduce or eliminate costs in consultation with EFLHD. The Railroad shall be solely responsible for one hundred percent of this portion of the total Project costs. The Railroad may use any combination of funds from its own budget and/or outside sources, whether public or private.

- J. The EFLHD shall not reimburse any additional or extra work done or materials furnished that are not specifically provided for in the approved plans and the specifications, unless the EFLHD has first approved such additional or extra work or materials in writing. Any such work done or materials furnished without such written approval first having been given by the EFLHD shall be at the Railroad's own risk, cost and expense.
- K. Work in Kentucky will be paid for in full by the Railroad.
- L. Work in Ohio will be paid for in full by the Railroad and the Ohio Rail Development Commission (ORDC).
- M. The Railroad will own all of the improvements performed, constructed or completed pursuant to this Agreement, with the exception of improvements to existing nonrailroad-owned public structures that may be impacted by the Project.

ARTICLE III: TERM OF AGREEMENT

- 1. This Agreement and the authorizations granted in it shall be effective only after the full execution and approval by both Parties to this Agreement.
- 2. This Agreement shall be in force and effect and shall remain in effect until the work, including payment, has been completed to the mutual satisfaction of both Parties.
- 3. This Agreement may be modified by the written consent of both of the Parties.

ARTICLE IV: KEY OFFICIALS AND CONTACTS

Designated points of contact for the coordination of this project are as follows:

For the RAILROAD:

Dr. Robert E. Martinez
Vice President Business Development
Norfolk Southern Corporation
Three Commercial Place
Norfolk, Virginia 23510
Phone: (757) 629-2748

Mr. James N. Carter, Jr.
Chief Engineer Bridges and Structures
Norfolk Southern Corporation
1200 Peachtree Street
Atlanta, Georgia 30309
Phone: (404) 529-1408

Fax: (757) 629-2849
email: robert.martinez@nscorp.com

Fax: (404) 527-2589
email: james.carterjr@nscorp.com

For the EFLHD:

Ms. Melisa Ridenour
Division Engineer
Department of Transportation
Federal Highway Administration
Eastern Federal Lands Highway Division
21400 Ridgetop Circle
Sterling, Virginia 20166
Phone: (703) 404-6201
Fax: (571) 434-1599
email: melisa.ridenour@fhwa.dot.gov

Mr. Kurt Dowden
Special Project Manager
Department of Transportation
Federal Highway Administration
Eastern Federal Lands Highway Division
21400 Ridgetop Circle
Sterling, Virginia 20166
Phone: (571) 434-1569
Fax: (703) 404-6217
email: kurt.dowden@fhwa.dot.gov

ARTICLE V: TERMINATION AND FORCE MAJEURE

- A. This Agreement will terminate when all transfers of funds are completed and all work associated with this Agreement has been inspected and approved in writing by the Parties and the State DOTs. Approval by the State DOTs will be by written notification to the EFLHD, and will be only with regard to facilities impacted by the Project that are owned and maintained by the respective State.

While it is the intention of the Parties to complete this Project, it is recognized that not all future events can be anticipated. If it becomes apparent that total Project costs, less the total amount of reimbursement from Federal funds that will be available under this Agreement, exceed the Railroad's approved capital budget authorization for the Project, the Railroad shall give notice to the EFLHD of the gap in funding. If, at the end of ninety (90) days (or such other period as Railroad and EFLHD may mutually agree) from the date Railroad gives notice, Railroad and EFLHD have failed to reach an agreement on how the gap in funding will be filled, either with as yet unidentified additional Federal funds, Railroad funds or funds from other sources, the Railroad may terminate this Agreement by sending written notice to EFLHD. If Railroad exercises this termination right, it shall refund to EFLHD any of the Federal funds received by Railroad under this Agreement.

In case of the failure on the part of either Party to observe any of the conditions of this Agreement, the affected Party may terminate this Agreement for default by giving written notice of default to the other Party, which will have thirty (30) days to cure said default (or, if the default cannot be cured in thirty days, such reasonable amount of time as may be necessary to cure the default). If the default is not cured within the applicable cure period, then this Agreement shall terminate effective at the end of the applicable cure period. The

Parties agree to try to resolve any such disagreements or differences.

- B. The Railroad shall be excused from its obligations hereunder for any period in which the following conditions of force majeure occur: Act of God, act of the public enemy, authority of law, fire or explosion, lockout, strike, war, act of terrorism, insurrection or any like causes beyond the control of the Railroad. If the Railroad declares force majeure, it shall promptly notify EFLHD when the force majeure condition begins, the nature of the force majeure, and when the condition is terminated.

ARTICLE VI: ASSIGNMENT

No transfer or assignment of this Agreement, or any part thereof or interest therein, directly or indirectly, voluntarily or involuntarily, shall be made unless such transfer or assignment is first approved in writing by the other Party, except that the Railroad may freely transfer or assign this Agreement to any of its parents, subsidiaries or affiliates as long as the Railroad's obligations under this agreement are fully assumed by the transferee/assignee.

ARTICLE VII: LIABILITY

1. The Parties accept full responsibility for any property damage, injury, or death caused by the acts or omissions of their respective employees, acting within the scope of their employment, or their contractors' scope of work, to the fullest extent of the law. Each Party shall defend, indemnify and save harmless the other Party and all of its agents and employees from all suits, actions or claims of any character, name or description arising from such damage, injury or death to the extent permitted by law. The EFLHD will require its contractors to carry insurance to indemnify both Parties for any action under their contract. All claims shall be processed pursuant to applicable governing law.
2. Except as provided in Section 1 of this Article VII, the Railroad shall indemnify and save harmless and (if requested) defend the States and/or the United States, and all of their agents and employees from all suits, actions or claims of any character, name or description, including, but not limited to, those relating to title to real property, brought for or on account of any injuries or damages received or sustained by any person, persons or property, arising out of, resulting from or connected with the design, construction, occupancy, use and/or maintenance of the improvements and/or any other activities relating to the improvements by the Railroad and/or the Railroad contractor(s) or consultant(s) and their officers, agents and employees, whether the same be due to defective materials, defective workmanship, neglect in safeguarding the work, or by or on account of any act, omission, neglect or misconduct of the Railroad and/or Railroad consultant(s) and/or contractor(s), their officers, agents and employees, during the performance of the work or thereafter.

ARTICLE VIII: REQUIRED AND STANDARD CLAUSES

1. Nothing in this Agreement shall be construed as limiting or affecting the legal authorities of the Parties, or as requiring the Parties to perform beyond their respective authorities. Nothing in this Agreement shall be deemed to bind any party to expend funds in excess of available Federal appropriations or the capital improvement budget authorizations of the Railroad.
2. **NON-DISCRIMINATION:** The Parties shall not discriminate in the selection of employees or participants for any employment or other activities undertaken pursuant to this Agreement on the grounds of race, creed, color, sex, or national origin, and shall observe all of the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. 2000(d) et. seq.). The Parties shall take positive action to ensure that all applicants for employment or participation in any activities pursuant to this Agreement shall be employed or involved without regard to race, creed, color, sex, or national origin.
3. **ANTI-DEFICIENCY ACT:** Pursuant to the Anti-Deficiency Act, 31 U.S.C. Section 1341(a)(1) (1994), nothing contained in this Agreement shall be construed as binding the United States or any State to expend any sum in excess of appropriations made by Congress for the purposes of this Agreement, or as involving the United States or any State in any contract or other obligation for the further expenditure of money in excess of such appropriations.
4. **INTEREST OF MEMBERS OF CONGRESS:** No member of, or Delegate to, or Resident Commissioner in Congress shall be admitted to any share or part of this Agreement, or to any benefits that may arise therefrom, unless the share or part or benefit is for the general benefit of a corporation or company.
5. **LOBBY PROHIBITION:** The Parties will abide by the provisions of Section 1913 (Lobbying with Appropriated Monies) of 18 U.S.C., which states:

No part of the money appropriated by any enactment of Congress shall, in the absence of express authorization by Congress, be used directly or indirectly to pay for any personal service, advertisement, telegram, telephone, letter, printed or written matter, or other devise, intended or designed to influence in any manner a Member of Congress, to favor or oppose, by vote or otherwise, any legislation or appropriation by Congress, whether before the introduction of any bill or resolution proposing such legislation or appropriation; but this shall not prevent officers or employees of the United States or its departments or agencies from communicating to Members of Congress on the request of any Members of Congress, through the proper official channels, requests for legislation or appropriations which they deem necessary for the efficient conduct of public business.
6. Public Law 101-121, Section 319, 31 U.S. Code Section 1352, prohibits the recipient or any lower tier sub-recipients of a Federal contract, grant, loan or cooperative agreement

from expending federal funds to pay any person for influencing or attempting to influence a Federal Agency or Congress in connection with the awarding of any Federal contract, the making of any federal grant or loan or the entering into of any cooperative agreement.

7. This Agreement is subject to all laws governing Federal and State procurement and to all regulations and rules promulgated thereunder, whether now in force or hereafter enacted or promulgated, except as specified in this Agreement. Nothing in this Agreement shall be construed as in any way impairing the general powers of the Parties for supervision, regulation, and control of its property under such applicable laws, regulations, and rules.

ARTICLE IX. ENTIRE AGREEMENT

This Agreement and its attachments constitute the entire Agreement and understanding of the Parties with respect to the Heartland Corridor Project. No oral or other written provisions shall have any force or effect except those contained in a written amendment to this Agreement executed by the parties or as specifically provided for in this Agreement.

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MOA ATTACHMENT B

	STATION	ST	PFX	MP	TYPE	CROSSING	DOT NO.
1	COWAN	VA	N	305.43	TUNNEL	COWAN TUNNEL	
2	BELSPRING	VA	N	308.76	DECK PL GDR	ST ROUTE 600, BACK CREEK	469529U
3	PARROTT SIDING	VA	N	310.66	DECK PL GDR	ST ROUTE 600	469530N
4	EGGLESTON	VA	N	316.15	TUNNEL	EGGLESTON #1 TUNNEL	
5	EGGLESTON	VA	N	317.02	TUNNEL	EGGLESTON #2 TUNNEL	
6	PEMBROKE	VA	N	319.83	TUNNEL	PEMBROKE TUNNEL	
7	PEMBROKE	VA	N	320.66	STL BEAM	ROCKY HOLLOW	
8	RIPPLEMEAD	VA	N	321.87	DECK PL GDR	WALKER'S CREEK	
9	NARROWS	VA	N	333.73	STL BEAM	ST ROUTE 100	469549F
10	NARROWS	VA	N	333.82	DECK PL GDR	ST ROUTE 649, WOLF CREEK	469550A
11	LURICH	VA	N	338.71	STONE ARCH	ST ROUTE 649	469557X
12	GLEN LYN	WV	N	340.68	DECK PL GDR	EAST RIVER	
13	GLEN LYN	WV	N	340.79	DECK PL GDR	EAST RIVER	
14	WILLS	WV	N	341.60	DECK PL GDR	EAST RIVER	
15	WILLS	WV	N	343.02	DECK PL GDR	CO ROUTE 219/8	469564H
16	INGLESIDE	WV	N	346.44	DECK PL GDR	CO ROUTE 219/6	469566W
17	INGLESIDE	WV	N	346.62	DECK PL GDR	EAST RIVER	
18	INGLESIDE	WV	N	349.13	DECK PL GDR	ST ROUTE 112	
19	INGLESIDE	WV	N	351.21	DECK PL GDR	ST ROUTE 112	469574N
20	INGLESIDE	WV	N	352.00	DECK PL GDR	ST ROUTE 112, EAST RIVER	469576C
21	INGLESIDE	WV	N	352.15	DECK PL GDR	ST ROUTE 112, EAST RIVER	469577J
22	INGLESIDE	WV	N	352.83	DECK PL GDR	ST ROUTE 112, EAST RIVER	469579X
23	INGLESIDE	WV	N	354.13	DECK PL GDR	EAST RIVER	
24	ADA	WV	N	359.74	DECK PL GDR	ST ROUTE 112	469590X
25	EAST END BLUEFIELD	WV	N	361.48	OH HWY-STEEL	CO ROUTE 25	471126F
26	BLUEFIELD	WV	N	362.23	OH HWY-STEEL	BELCHER STREET	471125Y
27	BLUEFIELD	VA	N	366.42	DECK PL GDR	BLUESTONE RIVER	
28	EAST FURNACE	VA	N	366.68	DECK PL GDR	BLUESTONE RIVER	
29	EAST FURNACE	VA	N	366.79	THRU PL GDR	BLUESTONE RIVER	
30	EAST FURNACE	VA	N	367.20	DECK PL GDR	BLUESTONE RIVER EB	
31	HALE	VA	N	367.37	DECK PL GDR	BLUESTONE RIVER	
32	HALE	VA	N	367.52	DECK TRUSS	ST ROUTE 102	469146S
33	HALE	VA	N	367.79	DECK PL GDR	BLUESTONE RIVER	
34	HALE	VA	N	368.08	DECK PL GDR	BLUESTONE RIVER	
35	FALLS MILL SCANNER	VA	N	369.21	DECK PL GDR	ST ROUTE 717, BLUESTONE R	469150G
36	FALLS MILLS	VA	N	369.52	DECK PL GDR	BLUESTONE RIVER	
37	FLAT TOP	VA	N	370.54	THRU PL GDR	PRIVATE ROAD	469154J
38	NEMOURS	WV	N	372.06	DECK PL GDR	BLUESTONE RIVER	
39	BLUESTONE	WV	N	373.40	DECK PL GDR	PRIVATE ROAD	471059N
40	BLUESTONE	WV	N	373.91	DECK PL GDR	BLUESTONE RIVER	
41	BLUESTONE	WV	N	374.26	TUNNEL	COOPER TUNNEL	
42	BLUESTONE	WV	N	374.45	DECK PL GDR, DECK TRUS	CO ROUTE 20/9, BLUESTONE	471056T
43	MAYBEURY	WV	N	375.52	TUNNEL	ELKHORN TUNNEL	
44	MAYBEURY	WV	N	378.64	DECK PL GDR, THRU TRUS	CO ROUTE 52/12, ELKHORN CREE	471054E
45	NORTH FORK	WV	N	385.91	THRU PL GDR	WATERWAY	
46	NORTH FORK	WV	N	386.50	THRU PL GDR	WATERWAY	
47	BURKE SPUR	WV	N	387.00	THRU PL GDR	WATERWAY	
48	ECKMAN	WV	N	388.07	THRU PL GDR	ELKHORN CREEK	
49	LANDGRAFF SCANNER	WV	N	389.78	THRU PL GDR	WATERWAY	
50	VIVIAN	WV	N	392.01	DECK PL GDR	ROAD, ELKHORN CRK	471036G
51	VIVIAN	WV	N	392.06	TUNNEL	WEST VIVIAN TUNNEL	
52	VIVIAN	WV	N	392.34	DECK PL GDR	ROAD, ELKHORN CRK	471035A
53	BIG FOUR	WV	N	393.16	DECK PL GDR	ROAD, ELKHORN CRK	471034T
54	BIG FOUR	WV	N	394.24	TUNNEL	BIG FOUR #1 TUNNEL	
55	HUGER	WV	N	395.07	TUNNEL	BIG FOUR #2 TUNNEL	
56	HUGER	WV	N	395.19	DECK PL GDR	WATERWAY	
57	HUGER	WV	N	395.56	TUNNEL	HUGER TUNNEL WB	
58	HUGER	WV	N	395.56	TUNNEL	HUGER TUNNEL EB	
59	HUGER	WV	N	395.65	DECK PL GDR	ST ROUTE 52/17, PVT ROAD	471029W
60	HUGER	WV	N	395.65	DECK PL GDR	ELKHORN CREEK, PVT ROAD	
61	MAITLAND	WV	N	396.41	THRU PL GDR	CO ROUTE 52/17, ELKHORN C	471028P

62	WELCH	WV	N	398.89	TUNNEL	WELCH TUNNEL	
63	TUG	WV	N	399.19	DECK PL GDR	ST ROUTE 16, TUG FORK	471023F
64	HEMPHILL	WV	N	400.08	THRU PL GDR	TUG FORK	
65	HEMPHILL	WV	N	400.15	TUNNEL	HEMPHILL #1 TUNNEL	
66	HEMPHILL	WV	N	400.35	DECK PL GDR	ROAD, TUG FORK	471020K
67	HEMPHILL	WV	N	400.42	TUNNEL	HEMPHILL #2 TUNNEL	
68	EAST FARM	WV	N	401.01	DECK PL GDR	TUG FORK	
69	CAPLES	WV	N	401.53	DECK PL GDR	UPPER SHANNON BRAN	
70	WEST FARM	WV	N	402.92	THRU TRUSS	TUG FORK	
71	MOHEGAN	WV	N	403.61	THRU PL GDR	TUG FORK	
72	MOHEGAN	WV	N	403.71	TUNNEL	ANTLER #1 TUNNEL	
73	OLD PANDO SDG	WV	N	405.07	TUNNEL	ANTLER #2 TUNNEL	
74	OLD PANDO SIDING	WV	N	405.22	DECK PL GDR	TUG FORK	
75	DAVY	WV	N	406.57	DECK PL GDR	TUG FORK	
76	DAVY	WV	N	407.01	DECK PL GDR	BIG DAVY CREEK	
77	TWIN BRANCH	WV	N	407.71	TUNNEL	TWIN BRANCH #1	
78	TWIN BR	WV	N	408.05	DECK PL GDR	ST ROUTE 7, TUG FORK	471012T
79	TWIN BRANCH	WV	N	408.11	TUNNEL	TWIN BRANCH #2	
80	MARYTOWN	WV	N	409.19	DECK PL GDR	TUG FORK	
81	RODERFIELD	WV	N	412.01	DECK PL GDR	ST ROUTE 81, TUG FORK	471009K
82	RODERFIELD	WV	N	412.08	TUNNEL	VAUGHAN TUNNEL	
83	RODERFIELD	WV	N	413.01	DECK PL GDR	CO ROUTE 7, TUG FORK	471008D
84	RODERFIELD	WV	N	413.07	TUNNEL	RODERFIELD TUNNEL	
85	RODERFIELD	WV	N	413.26	TUNNEL	CO ROUTE 52/10, TUG FORK	471007W
86	ROGERS	WV	N	414.04	DECK PL GDR	TUG FORK	
87	ROGERS	WV	N	414.09	TUNNEL	LAUREL TUNNEL	
88	ROGERS	WV	N	415.01	DECK PL GDR	US 52, TUG FORK	471006P
89	ROGERS	WV	N	415.07	TUNNEL	GORDON TUNNEL	
90	EAST WILMORE	WV	N	416.00	DECK PL GDR	US 52, TUG FORK	471005H
91	MOHAWK	WV	N	430.97	DECK PL GDR	LONG POLE CREEK	
92	FOUR POLE SPUR	WV	N	432.25	DECK PL GDR	FOUR POLE CREEK	
93	WHARNCLIFFE	WV	N	437.85	DECK PL GDR	BEN CREEK	
94	GLEN ALUM	WV	N	439.47	TUNNEL	GLEN ALUM TUNNEL	
95	WEST DEVON	WV	N	447.36	DECK PL GDR	BEECH CREEK	
96	LICK FORK SPUR JCT	WV	N	455.25	DECK PL GDR	PRIVATE ROAD	470845N
97	MATEWAN	WV	N	460.56	DECK PL GDR	PEDESTRIAN ACCESS	470852Y
98	SPRIGG	WV	N	462.01	THRU TRUSS	TUG FORK	
99	SPRIGG	KY	N	462.09	TUNNEL	HATFIELD TUNNEL WB	
100	SPRIGG	KY	N	462.09	TUNNEL	HATFIELD TUNNEL EB	
101	SPRIGG	WV	N	462.30	THRU PL GDR, THRU TRUSS	TUG FORK	
102	WEST SYCAMORE	WV	N	469.51	DECK PL GDR	VINSON ST-CO RT 11	407859W
103	WEST SYCAMORE	WV	N	469.77	DECK PL GDR	HARVEY STREET	470862E
104	WILLIAMSON	WV	N	471.62	TUNNEL	WILLIAMSON TUNNEL	
105	LIZANN MINING	WV	N	479.30	DECK PL GDR	MILLERS CREEK	
106	NAUGATUCK	WV	NA	0.20	THRU TRUSS	PIGEON CREEK	
107	PANCO SDG	WV	NA	3.31	TUNNEL	TUNNEL NO. 1	
108	GREY EAGLE	WV	NA	6.02	TUNNEL	TUNNEL NO. 2	
109	GREY EAGLE	WV	NA	6.70	DECK PL GDR	MARROWBONE CREEK	
110	GREY EAGLE	WV	NA	6.82	TUNNEL	TUNNEL NO. 3	
111	BUFFALO MINING	WV	NA	10.36	DECK PL GDR	CO ROUTE 52/31, JENNYS CR	471597V
112	BULL	WV	NA	12.68	TUNNEL	TUNNEL NO. 4	

In the early 1900's the railroad mainline track curve radii were increased at several locations, this resulted in the abandonment of several tunnel (bypassed by tunnels on the current list, see above). The following "bypassed" tunnels will also be recorded (by site forms and photographs). These tunnels are located at: Egglesto No. 1, Eggleston No. 2, Big Four No. 1, and Twin Branch No. 2.