Connecticut Department of Transportation

CENTRAL NEW ENGLAND RAILROAD

TIGER Discretionary Grant Application

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Project Information (K)

i. Type of Project
Freight Rail

ii. Project Location
South Windsor and East Windsor, Connecticut to the CT/MA State Line in Enfield (Armory Line) and Hartford, Connecticut to Bloomfield and Windsor, Connecticut (Griffin Industrial Track), within the 1st and 2nd Congressional Districts

iii. Project Area
Urban and Rural

iv. Amount of Grant Funds Sought
$41,751,722

v. DUNS Number
807854583

vi. Central Contractor Registration Confirmation Number
QZX9NA

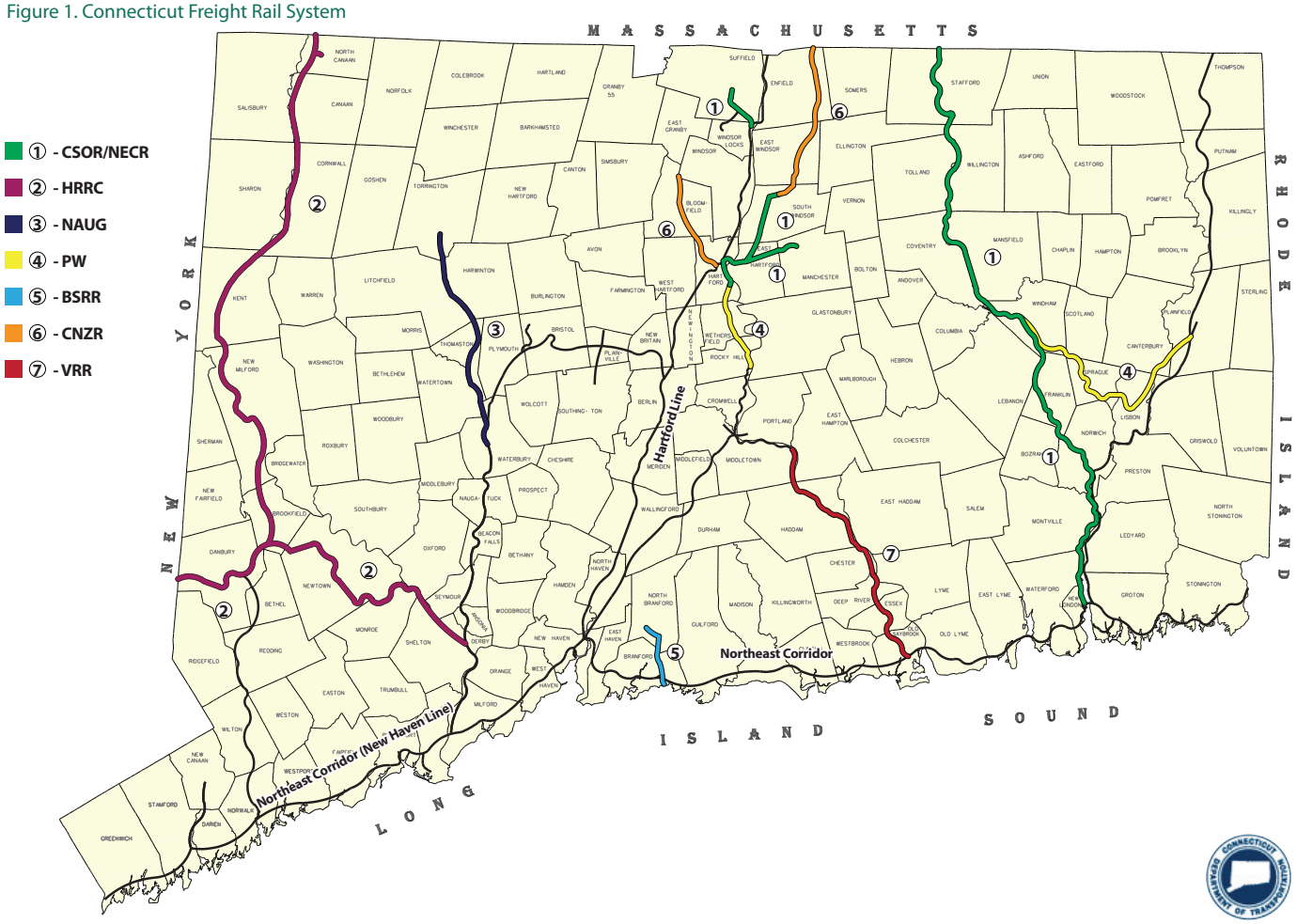
Ladies and Gentlemen of the Selection Committee:

Thank you for the opportunity to request ARRA TIGER Discretionary Grant funding (TIGER funding) for Connecticut's continuing efforts to improve our statewide freight rail network. Over the past ten years, the Connecticut Department of Transportation (ConnDOT) has directly invested over $282.5 million into the freight rail network. This investment has allowed ConnDOT to incrementally improve the rail infrastructure. In addition, the State has invested over $1.56 billion in the New Haven Main Line (NHML), a key segment of the Northeast Corridor. The NHML investments, targeted for passenger rail service, also secondarily benefit freight rail by permitting increased freight train speeds. Numerous upgrades and improvements are still necessary however, to make the overall system economically viable for the future. In some cases, urgent repairs and upgrades are needed in order to provide a more cost effective, safe, and sustainable means of efficiently transporting goods.

The receipt of the requested funding from the TIGER Discretionary Program, which is significantly less than the investment already made by the state, will provide the much needed incremental funding to completely address priority improvements in the system. To ensure that the greatest needs are addressed, ConnDOT has partnered with seven of the freight rail operators in the state to determine which projects have the highest priority and ability to leverage past investment in the network. The projects associated with each of these freight rail operators will be submitted as a separate application, for a total of seven applications. These projects, which are in keeping with the intent of the TIGER Grant program and will benefit operations on over three-quarters of the state freight rail system (Figure 1), are:

- Central New England Railroad (CNZR): Rail improvements to Armory Line and Griffin Line to increase operating speeds.
- Housatonic Railroad (HRRC): Replacement of track and crossings, bridge modifications, upgrades to crossings, and access to businesses along several key segments of their 83-mile system.
- Naugatuck Railroad Company (NAUG): Upgrades to the 19.5-mile Torrington Line, including culverts, ties and ballast, and grade crossing improvements.

Figure 1. Connecticut Freight Rail System



- Providence & Worcester Railroad (PW): Rail improvements to Willimantic and Middletown Branches to increase operating speeds.
- RailAmerica's Connecticut Southern Railroad Company (CSO) and New England Central Railroad (NECR): Bridge work, replacement of ties and ballast, surfacing, and switch rebuilding over 76 miles of track.
- Tilcon/Branford Steam Railroad (BSRR): Replacement and repowering of locomotives and replacement of hopper railcars.
- Valley Railroad Company (VRR): Resurrection of a key dormant section of the line and track rehabilitation along the remaining segments.

These upgrades and improvements will:

- Reduce the number of truck trips and amount of carbon emissions associated with cargo shipment
- Create new jobs throughout the state
- Not require any additional environmental permits
- Not be contingent upon the completion of any other projects
- Be immediately ready to begin work with all funds being utilized prior to February 2012.

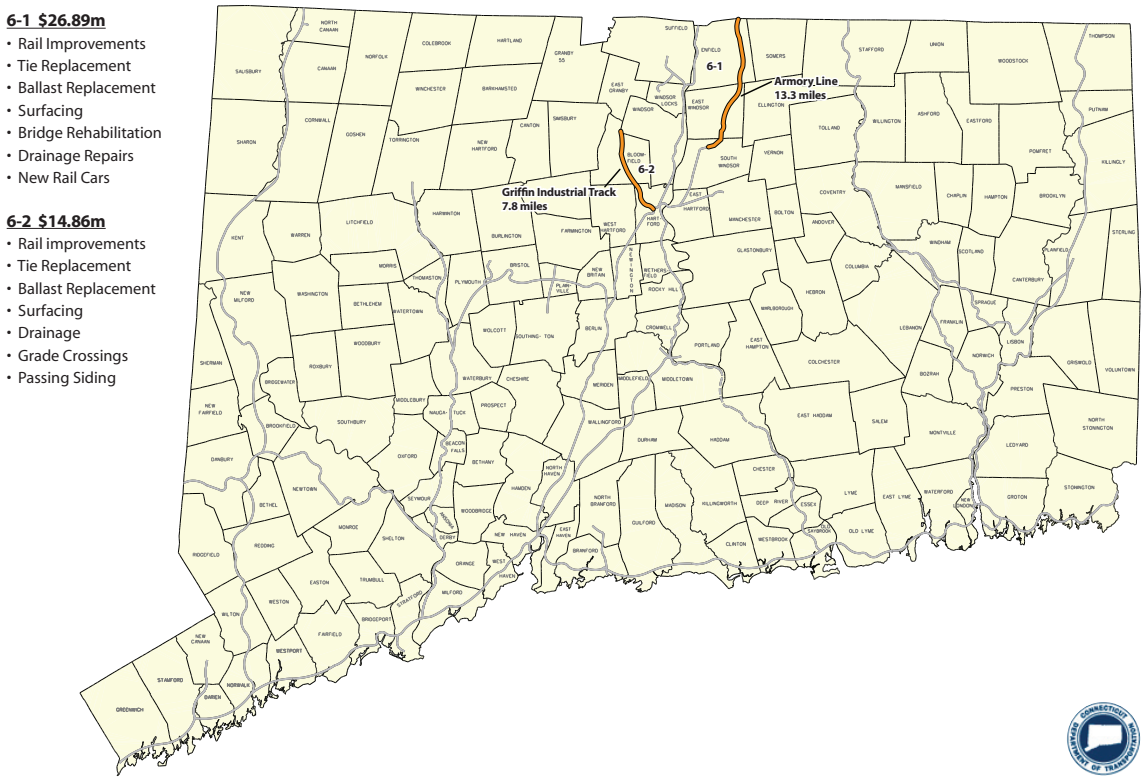
This application specifically addresses the Central New England Railroad project, which includes track improvements to the Armory and Griffin Lines to increase operating speeds, improve service reliability and improve their interchanges with other railroads. The sections of the statewide freight rail network included in this application are shown in Figure 2.

Application Overview

The application document responds specifically and in detail to the interim notice published in the Federal Register on May 18, 2009 and the operative notice published June 17, 2009. This application consists of two parts.

1. The first describes the needs of the state freight rail system and the broad-based resultant benefits from TIGER funding for the entire State of Connecticut.
2. The second addresses the Central New England Railroad project and its specific application for the TIGER Grant funding. This project will cost $41,751,722 and is a critical piece of the repair needed for the statewide freight rail network.

Figure 2. Central New England Railroad



Background of Project and Existing Condition of Freight Rail Network

The Connecticut freight rail network is a critical component of the northeast regional rail system. Freight rail service is an important component of the American industries supply chain and a vital component to Connecticut's economy. Connecticut moves 3.6 million tons of freight over 10 freight railroads annually. This network connects with the Ports of New York and New Jersey, which are critical to the continued economic growth and success of the Northeast region.

The Connecticut freight rail system needs infrastructure upgrades and repairs immediately in order to meet the need to move freight more efficiently and ensure its continued role in the movement of goods throughout the state and the northeast region. Portions of the rail lines are so severely worn that they are at the end of their serviceable life. Older, under-maintained tracks result in reduced operating speeds, which slow the movement of cargo and ultimately increase costs for the consumer. Bridges and track structure require strengthening and clearances increased to meet the demands of today's higher capacity rail equipment. Inadequate grade crossing protection systems create conditions that are less desirable for pedestrians, vehicles, and trains and result in unnecessary delays to both vehicular and train traffic.

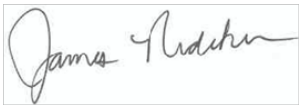
This image shows the relationship between the freight rail network and the regional electric grids. NAUG is hauling over-dimension and overweight electric transformers to Northeast Utility's Watertown Substation, which feeds Fairfield County. Repairs and improvements to the network are imperative to ensure the ability to move over-size loads.

Project Benefits

The combined benefits of these seven initiatives include reducing truck trips and carbon emissions, creating jobs, providing economic growth opportunities, and improving safety measures within the statewide freight rail system. Each rail car carries the equivalent of four trucks. Enabling the increased use of freight rail will reduce the number of truck trips necessary along the roads of New England, thereby reducing traffic congestion, reducing crashes and saving lives, and reducing carbon emissions.

Thank you for your time and consideration of our submission.

Sincerely,



James P. Redeker
Bureau Chief – Public Transportation

C. Project Description

Overview

Connecticut plans to increase rail freight shipments by 25 percent over the next two decades to support economic growth and reduce the volume of truck traffic. The state currently moves 3.6 million tons of freight over 10 freight railroads annually. To realize a 25 percent increase, upgrades and improvements are urgently needed to repair or replace aging infrastructure and equipment.

Connecticut is strategically located between the major northeastern urban centers of New York City and Boston, offering the state unlimited opportunities for shipping cargo. Its rail system also assures workable freight rail access to the Ports of New York and New Jersey, as well as the corridor related to the North American Free Trade Agreement. Over the past ten years, the state has invested over $282.5 million in the network to improve the movement of freight rail. Among the many projects is the reconstruction and relocation of the main rail spur on the east side of the Port of New Haven to achieve a direct rail connection to this stra-

This image shows a track worker conducting much needed maintenance. An NAUG track worker is jacking and leveling the track in preparation for the tamping machine to vibrate and compact the stone ballast around and beneath the wooden crossties.

tegic port. Direct port to rail connections in the state will serve the rapidly growing container segment of rail traffic to help remove long-haul trucks from highways and deliver products to consumers faster, as well as offer an alternate to the larger ports (New York and New Jersey).

Implementing the proposed upgrades and infrastructure improvements to the state's freight rail network will allow the continued growth of the freight industry and will result in a reduction in the number of truck trips made on the regional highways. Trucks have a significant effect on highway traffic conditions, particularly along the highly congested I-84, I-91, and I-95 corridors in Connecticut. Much of the congestion occurs at the bottlenecks in the Hartford and New Haven areas. The congestion results in increased fuel usage, increase green houses gas emissions, increased travel time, and thus increased cost to the consumer.

The freight rail network improvements will also result in fewer carbon dioxide emissions being released. The movement of cargo by rail produces much lower emissions than the movement of the same amount of cargo by truck. On average, it takes four trucks to move the same amount of cargo that one rail car can move.

There are a number of jobs that would be created as a result of these infrastructure improvements. In addition to new positions within each freight rail company, there would be a number of construction positions, for both the rail construction and any subsequent induced developments, as a result of the improvements. Using the standard formula for stimulus job creation, where a $50,000 investment creates one full-time job (2080 work-hour per year basis), 2,180 jobs will be created by the proposed improvements and repairs for the statewide freight rail network. Follow-on jobs will also occur in other regions and businesses, fueled by the growth of transport throughout the state. These follow-on jobs will include positions in the manufacturing and supply industry. Private companies are increasingly seeking to transport cargo via rail due to its cost savings and environmental benefits. The improvements and upgrades to the statewide freight rail system are required to stay competitive with the market.

Detailed Description of Statewide Rail Infrastructure Improvements

ConnDOT has partnered with seven freight rail operators to determine the most critical repairs that need to be made to improve the network. These freight rail companies and their projects include:

- Central New England Railroad is a short-line railroad that operates in Connecticut over the Department's Griffin Line between Hartford and Windsor (8.7 miles) and over the Department's Armory Branch Line between South Windsor and the Massachusetts State Line in Enfield (13.5 miles). CNZR priority projects include rail improvements to the Armory Line and the Griffin Line to increase operating speeds.
- Housatonic Railroad Company (HRRC) is a regional short line that operates in the western part of Connecticut and in Massachusetts and New York along the Berkshire Line (50.0 miles) and the Maybrook Line (33.5 miles). These two lines form a portion of a critical rail route in western Connecticut. Priority improvements for HRRC include replacement of track and crossings, bridge modifications, upgrades to at-grade crossings, and improved rail access to businesses.
- Naugatuck Railroad Company (NAUG) is a shortline railroad that operates over the Department's Torrington Branch Line between Waterbury and Torrington (19.5 miles). Torrington Line improvements include repairing or replacing culverts, ties and ballast, and grade crossing improvements.
- Providence and Worcester Railroad Company (PW) is a regional Class II railroad that operates in southern New England, and as far south as New York City. In Connecticut, PW operates over 238.5 miles of track. Priority projects for PW include track improvements to the Willimantic Branch and the Middletown Secondary to increase operating speeds and improve system interconnectivity.
- Rail America, Incorporated has two subsidiaries that operate in Connecticut: the New England Central Railroad (NECR), and the Connecticut Southern Railroad (CSOR). NECR operates on their own line between New London and Stafford (55.8 miles) and on to East Alberg, Vermont where they connect with the Canadian National Railroad. CSOR operates on CSX from West Springfield to Springfield, Massachusetts, and on Amtrak from Springfield to North Haven (53 Miles). CSOR owns and operates the Manchester Secondary Line (9.6 miles), the Armory Branch Line (6.8 miles), and the Suffield Branch Line (4.4 miles). They also operate on the spur track to Bradley Airport that is owned by the state (2.4 miles). Work for NECR and CSO includes bridge improvements, replacement of ties and ballast, surfacing, and switch rebuilding to improve operating speeds and rail areas to existing and potentially new customers.
- (Tilcon) Branford Steam Railroad (BSRR) is a subsidiary of Tilcon Connecticut, Incorporated, and provides service between their trap rock quarry in North Branford and their barge loading facility on Long Island Sound in Branford (7.2 miles). Priority projects for BSRR include replacement and upgrade of locomotives and replacement of hopper railcars.
- Valley Railroad Company (VRR) operates between Old Saybrook and Haddam along the right-of-way owned by the Connecticut Department of Environmental Protection. Priority repairs for VRR include the restoration of a 10-mile dormant segment of the line and track and bridge improvements along the remainder of the corridor.

This image shows NAUG crosstie insert machine making repairs.

The proposed projects for VRR and the PW Middletown Secondary are along the same freight rail corridor and when completed, will provide an alternate route for freight rail movements between Old Saybrook and Hartford via Middletown that does not currently exist. This new route will remove freight rail traffic from the Northeast Corridor between Old Saybrook and New Haven as well as along the Hartford Line between New Haven and Hartford. It will also reduce freight shipment miles by 22.7 miles by traveling from Old Saybrook to Middletown to Hartford (44.6 miles) versus Old Saybrook to New Haven to Hartford (67.3 miles). This will not only reduce the short line operating cost as a result of reduced travel miles and avoidance of access fees on the Northeast Corridor, but it will also reduce congestion on the Northeast Corridor and benefit passenger rail that shares that corridor.

This application addresses improvements and repairs for portions of the statewide freight rail network operated by CNZR. CNZR has two rail corridor maintenance projects that are urgently needed to ensure the continued use of the Armory Line and the Griffin Line. The Armory Line requires improvements such as rail, tie, and ballast replacement; surfacing; bridge deck repairs; drainage upgrades; and new rail cars. The Griffin Line requires similar improvements including rail, tie, and ballast replacement; surfacing; grade crossing upgrades; drainage upgrades; and a new passing storage track with turnouts.

Addressing Urban and/or Rural Area Needs

The statewide freight rail system navigates through both urban and rural populations. The projects address needs critical to both areas through implementing quick turnaround strategies for modernizing operations, thereby creating a more efficient system and improving safety. These steps will ensure the continued movement of freight into and out of urban and rural areas in Connecticut and throughout the surrounding region.

Freight rail improvements will foster economic growth and development in the state. Connecticut has nine municipalities that are categorized as Economically Distressed Areas (EDAs) within the eight Comprehensive Economic Development (CED) regions. The municipalities include Bridgeport; New Britain; Waterbury; New Haven; New London; Hartford; East Hartford; Torrington; and Windham. Per the U.S. Census Bureau Factfinder (2007), these municipalities either have a per capita income that is less than 80 percent of the national per capita income or have unemployment rates that are at least 1 percent greater than the national unemployment rate. Four of the seven projects serve an EDA. Furthermore, the freight railroad industry as a whole is in distress and needs the proposed improvements and upgrades to regain its place in the market and be able to maintain its current levels of employment.

Transportation Challenges that the Project Aims to Address

The infrastructure improvements to the freight rail system seek to address the transportation challenge of moving freight in a cost effective, sustainable, and timely manner. Achieving this includes:

- Increasing load-bearing capabilities of rail bridges
- Decreasing travel times and operating costs
- Improving rail-to-rail connections
- Improving port-to-rail connections

Attaining travel time reductions and increases in load-bearing capabilities of rail bridges to be competitive with alternate modes of freight movements, specifically trucking goods on congested highways, is critical to the growth and success of the state's freight rail network. The proposed improvements and repairs will enable

This image shows the first Connecticut double-stack container, operated by RailAmerica, Inc. Increased vertical clearances enable double-stack containers, which increase shipment volumes.

portions of the rail network to handle a 286,000 pound rail car load, while ensuring that the remaining portions of the network will continue to handle this load. While some vertical clearance projects have been funded by the freight operators, RailAmerica completed one on the NECR Palmer Line and PW completed one on the Norwich Line (Plainfield Secondary), additional increases to vertical clearances are needed within the network to accommodate modern loading practices and will be included as part of this project. Connecticut's freight rail system needs updates and infrastructure improvements in order to be economically competitive in facilitating the movement of goods into and through the state, specifically in comparison to transporting cargo via trucks.

Transportation is a major consumer of energy and a significant contributor of carbon dioxide emissions, both of which are a factor in the rise in green houses gases and resultant climate changes that are increasingly causing concerns globally. Moving freight by rail results in fewer carbon emissions and green house gases due to the amount of truck trips one freight train can displace. This then results in decreased congestion on the highway network and improved safety measures on the roadway. The roadway network becomes safer as a result of less traffic congestion overall, as well as fewer trucks.

D. Project Parties

The primary project parties are the State of Connecticut and the Connecticut Department of Transportation. The Central New England Railroad (CNZR) is another important project party since they own and/or operate freight rail over the portion of the state's freight rail network that is being considered. The State of Connecticut (www.ct.gov) would be the official grant recipient, and the Connecticut Department of Transportation (ConnDOT) (www.ct.gov/dot) would be administering the grant funds and managing the project in partnership with CNZR.

E. Grant Funds and Sources and Uses of Funds

The Connecticut Department of Transportation is seeking 100% funding for the proposed improvements and repairs identified in this application for each of the seven freight rail operators. These funds are intended to leverage the $282.5 million the state has invested in the freight rail network over the past ten years. The receipt of the requested funding from the TIGER Discretionary Program, which is significantly less than the $282.5 million investment already made by the state, will provide the much needed incremental funding to completely address priority improvements in the system.

Another $1.56 billion has been invested by the state in the New Haven Main Line for infrastructure improvements, such as track, signals and power, and bridges. This work provides a secondary benefit to freight rail because it allows the freight rail trains that operate on the New Haven Line to increase their operating speeds, reducing transit times. In total, the TIGER Discretionary Program requests represent a small portion of the total state rail investment but will provide tremendous benefit through renewed connectivity and increased productivity to the state rail freight system.

This image shows the construction work on the Waterfront Street Rail Extension at the Port of New Haven.

The improvements and repairs proposed for TIGER funding will benefit approximately three-fourths of the statewide freight rail network at an investment that is significantly lower than previous investments made by ConnDOT for the freight rail system.

F. Selection Criteria Compliance

Continuing to improve the statewide freight rail network is consistent with the goals and objectives of the TIGER Grant funding.

1. Primary Selection Criteria

a. Long-Term Outcomes

› **State of Good Repair:** The proposed repairs and/or improvements to the statewide freight rail network will minimize life cycle costs, as operational efficiency will be improved and new equipment will require less fuel and maintenance. Right-of-way work and tie and rail replacements will return portions of the network to a State of Good Repair. In addition, the removal of trucks from the state highway system will extend

the life cycle of roads and bridges by reducing the wear and tear caused by frequent truck traffic. These improvements coincide with the State Rail Plan and rehabilitate portions of the rail line that urgently require attention to avoid threatening their economic future.

- **Economic Competitiveness:** The projects proposed for the statewide freight rail network will provide long-term contributions to growth in employment, as well as the more efficient movement of goods, which results in cost competitiveness. Repair and replacement of equipment and track will increase operating speeds and reduce the cost of moving freight. The connection of the Middletown Secondary and the Valley Railroad will reduce operating costs via reduced travel miles and access fees by avoiding a section of the Northeast Corridor. These changes will reduce costs for the freight operator and the supplier, thereby making goods more cost competitive in the marketplace. Job growth will continue beyond the duration of construction, as the improved operations will result in additional positions with the freight operator, positions with suppliers who will be able to move more cargo, and follow on positions in other regions as a result of increased operations.
- **Livability:** The repairs and/or improvements to the statewide freight rail system will significantly improve the availability of goods to the state, including nine municipalities designated as EDAs. The proposed projects will take truck traffic off of the roads on the arterial and interstate roadway system, thereby reducing congestion and emissions. This will also make the roadway network safer for drivers, particularly senior citizen drivers who may be averse to driving alongside trucks. The engines on the proposed new equipment will exceed the Tier II emissions standards and also reduce noise associated with the movement of the freight trains. The combined efforts of VRR and PW will provide an alternate route for freight rail movements between Old Saybrook and Hartford, which will reduce freight rail traffic on the NEC, thus benefiting passenger rail traffic on that corridor.
- **Sustainability:** The proposed repairs and improvements to the statewide freight rail network will improve energy efficiency through improved operating speeds and by permitting the through routing of the modern rail car.. Replacing outdated and inefficient equipment will reduce the operators' dependence on oil, since they will be traveling the same distance using less fuel. The projects contribute to a decrease in the movement of goods by less energy efficient vehicles by providing strengthened bridges and cleared routes for 286,000 pound rail car loads and double stack shipments. The proposed projects also avoid adverse environmental impacts since they are simply replacing or repairing existing infrastructure and equipment. Environmental benefits include decreased green house gas emissions and improved air quality, as a result of replacing old and inefficient equipment, and the subsequent reduction in truck trips from the highway network. Net emissions reductions of Volatile Organic Compounds (VOC), Nitrogen Oxide (NOx), and green house gas emissions (CO2) have been calculated, with the results posted at: http://www.ct.gov/dot/lib/dot/documents/dcommunications/stimulus/tiger/freightrail/Project_Emission_Analysis.doc.
- **Safety:** Removing truck traffic from the arterial and interstate roadway system will improve the overall safety of the roadway system. Studies have shown and concluded that a reduction in truck traffic will increase the overall safety of roadway facilities. Improvements and repairs to at-grade railroad crossings throughout the statewide freight rail system will make these crossings safer for pedestrians, vehicles, and trains.
- **Evaluation of Benefit Cost Analysis:** The benefits associated with the proposed improvements and repairs will results in travel and transit time savings, improved operations and safety, removal of trucks from highways, reduced emissions and green house gases, and an increase in the use of freight rail, more than substantiating the costs associated with the project.
- **Evaluation of Project Performance:** Key criteria will be tracked and reported accordingly to effectively evaluate the performance after the proposed repairs and improvements have been implemented.

b. Job Creation and Economic Stimulus

Using the standard formula for stimulus job creation, 2,180 new jobs will be created as a result of the total project investments on the statewide freight rail network. The majority of the created jobs will be in the construction trade workforce. Additional positions will be created within the freight companies as a result of expanded coverage or and increased volume of shipments. Follow on jobs within and outside of the region as a result of the increased operations will also be created, although these are not accounted for in the estimated total.

- **Project Schedule:** The projects are ready to start construction immediately upon receipt of a TIGER Grant, and the monies will be steadily spent throughout construction, with the projects being completed by February 2012.
- **Environmental Approvals:** All work will be completed within the existing right-of-way; no new approvals are anticipated as part of the proposed work.
- **Legislative Approvals:** Legislative approval is not needed for the proposed work.
- **State and Local Planning:** The proposed improvements are consistent with the Statewide Rail Plan and the business plans for each of the individual freight line operators. Furthermore, the improvements are being incorporated into the Connecticut

TIP per the Commissioner's letter located at: http://www.ct.gov/dot/lib/dot/documents/dcommunications/stimulus/tiger/freightrail/Inclusion_Document_for_STIP.pdf.

- **Technical Feasibility:** All of the projects consist of typical railroad construction techniques, materials, and equipment. None of the proposed repairs or improvements is contingent upon the completion of another project. The projects coincide with the State Rail Plan and are ready for immediate implementation.
- **Financial Feasibility:** Cost estimates have been prepared as shown in each application. TIGER Grant funding is necessary for the implementation of each of these projects.

2. Secondary Selection Criteria

- **Innovation:** The proposed improvements include replacing outdated locomotives and rail cars. This will not only ensure significantly reduced emissions, but it will also reduce fuel consumption. The new locomotives are innovative in their design, featuring power on demand engine systems, regenerative dynamic braking, a smokeless start engine, and clean emissions through a clean-burning MOH Tier 3 Engine with self-cleaning ceramic particulate filters.
- **Partnership:** The State of Connecticut is fully supportive of each individual project and has worked individually and collaboratively with each of the freight rail operators towards the overall goal of creating an efficient and effective regional freight rail system that plays an integral role in the overall transportation infrastructure and Connecticut in the region.

G. Federal Wage Requirement

ConnDOT certifies that it will be in compliance with the requirements of subchapter IV of chapter 31 of title 40, United States Code (Federal wage rate requirements), as required by the Recovery Act. A letter from the Commissioner, stating ConnDOT's compliance with the Federal Wage Requirement, is located at: http://www.ct.gov/dot/lib/dot/documents/dcommunications/stimulus/tiger/Federal_Wage_Certification_082509.pdf.

H. National Environmental Policy Act (NEPA) Requirement

None of the proposed improvements or repairs will significantly impact the natural, social, and/or economic environment. As the projects involve replacement of existing equipment or track components and repairs to existing structures, they are anticipated to fall within Federal Railroad Administration's Categorical Exclusion (CE) category under the NEPA protocol.

I. Environmentally Related Federal, State, and Local Actions

None of the projects for the statewide freight rail network will require actions by other agencies, as the projects include replacement and/or repairs to existing rail equipment and infrastructure.

J. Protection of Confidential Business Information

Information provided in ConnDOT's TIGER Discretionary Grant application is public information and is not considered confidential.

IX. Reporting Requirements

ConnDOT understands that entities receiving TIGER Discretionary Grants will be required to report on grant activities on a routine basis. Reporting categories include maintenance of effort, reports on use of funds, and environmental reporting. ConnDOT ensures that the appropriate reporting would be submitted in conjunction with the Grant Funding.

X. Certification Requirements

ConnDOT understands that it must comply with the Certification requirements of the Recovery Act.

The following section includes the project specific portion of the application for the Central New England Railroad.

Central New England Railroad

Summary Description of TIGER Discretionary Grant
Freight Railroad Improvements Projects and Emission Analysis and Determination of Air Quality Benefit
Prepared August 24, 2009 (Revised September 4, 2009)
By: A.J. Belliveau, President

Executive Summary:

The Central New England Railroad (CNE) is partnering with the Connecticut Department of Transportation (CDOT) as Project Sponsor to seek TIGER Discretionary Grant funding in an effort to improve CNE's ability to provide safer and more consistent freight rail service in Connecticut at reasonable cost to shippers, as well as support Clean Air initiatives, help remove trucks off Connecticut roads and highways, reduce train / highway vehicle collisions at rail-highway grade crossings, and support economic development throughout Connecticut.

The object of the American Recovery and Reinvestment Act is to create jobs for the economy quickly. CNE recognizes the need for quick-start or "shovel ready" activities as a predominant element of project readiness. In that regard, both of CNE's proposed Projects can be quickly initiated once funding has been secured.

Consistent with section 1602 of the Recovery Act, Project CNE1, "*Capital Improvements on the Armory Line (South Windsor to the CT / MA State Line, Enfield)"* and Project CNE2, "*Capital Improvements on the Griffin Line (Griffin Industrial Track) from Hartford, CT to Bloomfield, CT"* are ready to proceed rapidly upon receipt of a TIGER Discretionary Grant.

During the previous five-year period, CNE, the Connecticut Department of Transportation (CDOT), and freight railroad shippers have invested more than $3.8M for capital maintenance projects on both rail corridors, including more than $2.5M of CNE materials and labor, $1.2M in CDOT support through funding for Grade Crossing Improvements and local bridge maintenance project grant funding. In addition, CNE's freight rail shippers have invested more than $100,000 and continue to be committed as stakeholders and partners to improving rail freight transportation improvements in Connecticut.

TIGER Grant Project Summary

CNE proposes two rail corridor maintenance projects for TIGER Grant funding consideration.

- **Project CNE1: Capital Maintenance Improvements on the Armory Line Rail Corridor (South Windsor, CT to the CT / MA State Line, Enfield)**

  PROJECT SUMMARY / SCOPE OF WORK: Capital maintenance improvements to state-owned rail corridor to improve freight service in South Windsor, East Windsor, Enfield, and surrounding towns; improved interchange with CSO, and the opportunity for a rail reconnection to East Longmeadow and Springfield, MA and points east (Boston) and West (Chicago) for significant freight rail corridor improvements throughout North Central CT, Central Connecticut (Hartford area), to improve freight service to New Haven; provide support during construction of the New Haven – Springfield Rail Corridor improvements.

  Estimated Project Cost: $26,892,322
  (Includes rail, ties, ballast, surfacing, bridge deck, drainage upgrades, new turnouts, new freight rail cars, engineering support during construction, and program management)

  A breakdown of Project Costs has been included as Attachment A

- **Project CNE2: Capital Maintenance Improvements on the Griffin Line Rail Corridor (Griffin Industrial Track) from Hartford, CT to Bloomfield, CT**

  PROJECT SCOPE OF WORK: Capital maintenance improvements to state owned rail line; significantly improve connecting freight service in Hartford (interchange with CSO, and additional interchange potential with Pan Am) and provide regional economic development in Hartford, Bloomfield, Windsor, and surrounding towns through freight oriented development.

  Estimated Project Cost: $14,859,400
  (Includes rail, ties, ballast, surfacing, grade crossing upgrade, drainage upgrades, new passing storage track with new turnouts, engineering support during construction, and program management)

  A breakdown of Project Costs has been included as Attachment A

National Environmental Policy Act (NEPA) Process – Categorical Exclusion

CNE's TIGER Grant Applications state that the nature of the proposed work involves the maintenance and improvement of an existing rail corridor owned by the Connecticut Department of Transportation consisting of railroad track structure and supporting structures. In accordance with the National Environmental Policy Act (NEPA) regarding possible environmental impacts of projects that are under consideration for federal funding, it is therefore anticipated that both rail corridor maintenance Projects would meet the requirements under the *Categorical Exclusion* provision of NEPA, thereby not requiring further Environmental Approvals for the proposed work. Receipt of the anticipated Categorical Exclusion(s) would allow the either or both projects to immediately proceed to construction on the timeline specified in the project schedule, including satisfaction of Federal Railroad Administration, and other Federal, State, and local requirements and completion of the National Environmental Policy Act process.

As part of the preparation of the TIGER Discretionary Grant proposal documentation with the Connecticut Department of Transportation (CDOT), CNE reviewed FRA's Categorical Exclusion Worksheet that significantly assists proposers in gathering and organizing materials for environmental analysis required under the NEPA process which may qualify as Categorical Exclusions. As a result of the review of FRA's Worksheet, CNE anticipates that either or both proposed rail corridor capital maintenance Projects do not individually or cumulatively have a significant effect on the human environment and generally do not require the preparation of either an environmental impact statement or an environmental assessment. CNE's anticipation for a Categorical Exclusion is also based upon review of previous similar rail corridor projects wherein FRA has concurred in writing with various proposal sponsors' Categorical Exclusion recommendations that NEPA requirements were similarly met.

Public Works and Economic Development Act of 1965, As Amended
Title III– Eligibility; Comprehensive Economic Development Strategies (CEDS)
Economically Distressed Areas from Section 301 (42 USC 3161)

CNE's TIGER Grant proposals fully support the Metro Hartford Capital Region Comprehensive Economic Development Strategy (CEDS) to restore the Metro Hartford region's economy and strengthen the ability of the region to attract the types of businesses and job growth that will secure Hartford's economic future. As part of that effort, freight rail transportation improvements are needed as part of the region's multi-modal transportation strategy.

The TIGER Grant notice included a footnote in Section II(A)(1)(b) (Job Creation & Economic Stimulus) regarding the U.S. Department's application of the definition of "Economically Distressed Areas from section 301 of Public Works and Economic Development Act of 1965 (42 USC 3161)" as a matter of policy. It states: While "Economically Distresses Areas" are typically identified under the Act at the county level, for purposes of this program the Department will considered municipalities or similar political subdivisions of a state to be Economically Distresses Areas if an applicant can demonstrate that any such area otherwise meets the requirements for an "Economically Distressed Area" as defined in section 301 of Public Works and Economic Development Act of 1965.

With reference to the Title III - Eligibility CEDS provisions of the Public Works and Economic Development Act of 1965, as Amended, the CNE TIGER Grant Projects in the Metro Hartford / Capital Region meet the Eligibility requirements as set forth in Section 301, Eligibility of Areas. Specifically, the Per Capita Income for Metro Hartford is lower than 80% of the national average and the unemployment rate is at least 1% greater than the national average.

The MetroHartford / Capital Region CEDS findings are as follows:

Unemployment	16.8%	(US/national Unemployment Rate – 6.6%)
Per Capita Income	$16,982	US/national per capita income rate - $26,178 x 80% = $20,942 threshold

Emission Analysis and Air Quality Information for each proposed Project is listed on pages 4 & 5

Project Specific Information for Emission Analysis and Determination of Air Quality Benefit

Project #CNE1: Capital Maintenance Improvements on the Armory Line Rail Corridor (South Windsor, CT to the CT / MA State Line, Enfield)

Information Item for Emission Analysis	CNE Response
Track Length (mileage) in Connecticut	13.6 miles plus interchange and side tracks (approx 16 miles w/improvements)
Average daily/annual mileage per train	45 / 9360
Approximate number of railcar shipments annually that are/will be diverted from truck to rail	Estimated railcar shipment after improvements: 2500 carloads /year
Anticipated year service will be operable, if new, or if existing service, the year service is anticipated to be completely upgraded	Construction will start immediately upon project NTP immediately and anticipated completion date is 12/2014.
Are current truck trips one-way, two-way; What percentage of truck trips are one-way, percentage two-way (used to determine highway miles reduced and diverted to rail), if known	Currently 2-way 2-way 70%; 1-way 30%
Number of new/additional rail cars added to start this service (if no new rail cars, how many are currently in service now)	Project includes 16 additional refrigerated rail cars for new customer business; additional 2000 car loadings from national rail car fleet; 2 add'l locomotives for service improvements
Approximate number of gallons of fuel consumed per day for rail freight service	(assume 20 gals / hour X 6 hrs = 120 gals per day; 4 days / week)
If service is already existing, and no new or additional railcars are being added, is the speed of the rail line increased? If so, need average current speed and anticipated speed after improvement as well as the daily/annual number of railcars affected. Does increased speed reduce or increase the average number of gallons of fuel consumed by day? If speed affects fuel consumption, give difference in gallons or percent change.	Speed increased from 5 MPH to 30 MPH; Present average speed 3 MPH; estimated average speed 25 MPH after improvements. Daily railcars after service improvements: 12 Annual railcars affected: 2500 25% improvement in fuel consumption expected after improvements
Will increase in track speed reduce any truck traffic from highways? If so, anticipated number of trucks, mileage reduced	*Assume 4 trucks per rail car; 2500 rail cars = reduction of 10,000 trucks Estimated 1,500,000 mi @150 mi/truck *Based upon the 2005 CMAQ Air Quality Analysis for Waterfront Street Reconstruction that assumed each railcar was equivalent to 4 trucks.
Distinguish which are new rail service and which are improvements to existing service. For new service, why are the rail lines currently not being used? For example, are they outdated, no longer usable, have not been maintained, overlaid with asphalt, overgrown, etc.	Existing freight rail service to be improved to facilitate increased business through new shippers relocating to area; some existing track dates to late 1890's- 1920's.
Will these improvements result in rail interconnecting with intermodal facilities?	Freight rail interchange at South Windsor

Project CNE2: Capital Maintenance Improvements on the Griffin Line Rail Corridor (Griffin Industrial Track, from Hartford, CT to Bloomfield, CT)

Item	CNE Response
Track Length (mileage) in Connecticut	8.7 miles plus interchange and side tracks (total 11 track miles)
Average daily/annual mileage per train	40 / 10400
Approximate number of railcar shipments annually that are/will be diverted from truck to rail	3500 carloads / year
Anticipated year service will be operable, if new, or if existing service, the year service is anticipated to be completely upgraded	Construction will start immediately upon project NTP immediately and anticipated completion date is 12/2012.
Are current truck trips one-way, two-way. What percentage of truck trips are one-way, percentage two-way (used to determine highway miles reduced and diverted to rail), if known	Currently 2-way 2-way 75%; 1-way 25%
Number of new/additional rail cars added to start this service (if no new rail cars, how many are currently in service now)	All rail cars from national fleet; approx 2000 currently; 1500 added plus 1 locomotive for service improvements
Approximate number of gallons of fuel consumed per day for rail freight service	20 gals / hour X 6 hrs = 120 gals / day X 5 days (Currently)
If service is already existing, and no new or additional railcars are being added, is the speed of the rail line increased? If so, need average current speed and anticipated speed after improvement as well as the daily/annual number of railcars affected. Does increased speed reduce or increase the average number of gallons of fuel consumed by day ? If speed affects fuel consumption, give difference in gallons or percent change.	Speed to be increased from 10 MPH to 30 MPH; Present average speed 6 MPH; estimated average speed 25 MPH after improvements. Daily railcars after service improvements: 14 (3500 cars/52 wks/5 days per wk service) Annual railcars affected: 3500; 25% improvement in fuel consumption expected after improvements
Will increase in track speed reduce any truck traffic from highways? If so, anticipated number of trucks, mileage reduced.	Assume 4 trucks per rail car; 3500 rail cars = reduction of 14,000 trucks estimated 1,750,000 miles @ 150/Truck
Distinguish which are new rail service and which are improvements to existing service. For new service, why are the rail lines currently not being used? For example, are they outdated, no longer usable, have not been maintained, overlaid with asphalt, overgrown, etc.	Improvements to existing Griffin Line service which is presently 10MPH max speed; track dates to late 1890's in some areas. New improvements would include new track, sidings, and signal improvements to allow improved freight rail service
Will these improvements result in rail interconnecting with intermodal facilities?	Includes freight rail interchange at Hartford; Could also interchange at Hartford Union Station for passenger service in the future.

	TIGER GRANT CAPITAL MAINTENANCE PROJECTS- BACKUP INFORMATION; CENTRAL NEW ENGLAND RAILROAD							9/4/2009
?	DESCRIPTION	START MP	END MP	DISTANCE	COST PER FT	TOTAL MATERIAL	LABOR, EQUIPMENT, CONST. ENGINEERING	TOTAL
1	ARMORY DEPOT TO BROAD BROOK BR NEW CONC TIE	11.9	13.07	1.17	177.75	$ 1,098,068.40	$ 658,841.04	$ 1,756,909.44
1	ARMORY BROAD BRK BR TO KREYSSIG ROAD	13.08	13.91	0.83	161	$ 705,566.40	$ 423,339.84	$ 1,128,906.24
1	ARMORY KREYSSIG RD TO 191 CONC TIE ON HAND	13.91	15.7	1.79	101.55	$ 959,769.36	$ 575,861.62	$ 1,535,630.98
1	ARMORY RT191 TO SCANTIC BR TIES ON HAND	15.7	16.62	0.92	152.55	$ 741,026.88	$ 444,616.13	$ 1,185,643.01
1	ARMORY REPLACE BR DECK AT SCANTIC AND BR BRK	16.8				$ 64,400.00	$ 38,640.00	$ 103,040.00
1	REPAIR 3 BRIDGES PER CURRENT BRIDGE INSP. REPORTS					$ 937,750.00	$ 562,650.00	$ 1,500,400.00
1	ARMORY GATES AND FLASHERS AT 140 AND 191					$ 310,000.00	$ 186,000.00	$ 496,000.00
1	ARMORY REFURBISH FLASHERS AT RT190 AND RT220					$ 50,000.00	$ 30,000.00	$ 80,000.00
2	GRIFFIN MP 1.0 TO 2.0 WOOD TIE	1	2	1	161	$ 850,080.00	$ 510,048.00	$ 1,360,128.00
2	GRIFFIN MP 4.1 TO 4.6 WOOD TIE	4.1	4.6	0.5	161	$ 425,040.00	$ 255,024.00	$ 680,064.00
2	GRIFFIN MP 4.9 TO MP 7.4 WOOD TIE	4.9	7.4	2.5	161	$ 2,125,200.00	$ 1,275,120.00	$ 3,400,320.00
2	GRIFFIN MP 7.4 TO 8.2 WOOD TIE	7.4	8.2	0.8	161	$ 680,064.00	$ 408,038.40	$ 1,088,102.40
2	GRIFFIN STABILIZE SOFT ROADBED	2.9	3.1	0.2		$ 56,000.00	$ 112,000.00	$ 168,000.00
2	GRIFFIN STABILIZE SOFT ROADBED	3.6	3.9	0.3		$ 84,000.00	$ 168,000.00	$ 252,000.00
2	GRIFFIN STABILIZE SOFT ROADBED	4.9	5	0.1		$ 28,000.00	$ 56,000.00	$ 84,000.00
2	GRIFFIN STABILIZE SOFT ROADBED	5.5	5.7	0.2		$ 56,000.00	$ 112,000.00	$ 168,000.00
3	ARMORY PROCURE MECHANICAL REFRIG. CARS							$ 2,400,000.00
4	GRIFFIN HOME DEPOT SIDING	7.4	7.87	0.47	177.75	$ 441,104.40	$ 264,662.64	$ 705,767.04
4	GRIFFIN SWITCHES FOR HOME DEPOT SIDING					$ 95,000.00	$ 57,000.00	$ 152,000.00
5	GRIFFIN LINE REPLACE 4200 TIES					$ 340,000.00	$ 204,000.00	$ 544,000.00
6	GRIFFIN REBUILD ROGER SHERMAN SWITCH	4.3				$ 47,500.00	$ 28,500.00	$ 76,000.00
7	GRIFFIN RENEW WINTONBURY ROAD CROSSING	5.4				$ 65,000.00	$ 39,000.00	$ 104,000.00
8	GRIFFIN RENEW TOBE ROAD CSG RENEWAL	3.4				$ 65,000.00	$ 39,000.00	$ 104,000.00
9	GRIFFIN NEW GATES AND FLASHERS AT TOBE ROAD	3.4				$ 126,700.00	$ 76,020.00	$ 202,720.00
10	GRIFFIN NEW GATES AND FLASHERS AT MILLS LANE	5.82				$ 126,700.00	$ 76,020.00	$ 202,720.00
11	GRIFFIN SIGURNEY TO WOODLAND ST DRAINAGE	0.7	1.3			$ 185,000.00	$ 111,000.00	$ 296,000.00
12	GRIFFIN MP 0.63 INSTALL DOUBLE ENDED SIDING	0.63	0.83	0.2	177.75	$ 187,704.00	$ 112,622.40	$ 300,326.40
13	GRIFFIN SWITCHES FOR SIGOURNY ST SIDDING					$ 95,000.00	$ 57,000.00	$ 152,000.00
14	ARMORY RENEW GRADE CROSSING AT TROY ROAD	6.77				$ 65,000.00	$ 39,000.00	$ 104,000.00
15	ARMORY TROY RD TO DEPOT STREET WOOD TIE	6.77	11.9	5.13	161	$ 4,360,910.40	$ 2,616,546.24	$ 6,977,456.64
16	ARMORY RT190 TO END OF LINE WOOD TIE	16.78	20.3	3.52	161	$ 2,992,281.60	$ 1,795,368.96	$ 4,787,650.56
17	ARMORY INSTALL GATES & FLSHRS AT TOWN 12 RDS					$ 1,520,400.00	$ 912,240.00	$ 2,432,640.00
18	GRIFFIN SWITCHES FOR WNTONBURY SIDING					$ 95,000.00	$ 57,000.00	$ 152,000.00
19	GRIFFIN WINTONBURY DOUBLE ENDED SIDING	5.3	5.7	0.4	177.75	$ 375,408.00	$ 225,244.80	$ 600,652.80
20	GRIFFIN FARMERS EXCHANGE TRACK EXTENSION	5.1	5.15	0.05	177.75	$ 46,926.00	$ 28,155.60	$ 75,081.60
20	GRIFFIN FARMERS EXCHANGE NEW SWITCH	5.1				$ 47,500.00	$ 28,500.00	$ 76,000.00
21	ARMORY TWO TURNOUTS FOR BR BRK RUN-AROUND					$ 95,000.00	$ 57,000.00	$ 152,000.00
21	ARMORY BROAD BROOK RUN AROUND REBUILD	11.67	11.9	0.23	161	$ 195,518.40	$ 117,311.04	$ 312,829.44
22	ARMORY REPLACE NORTH SWITCH AT HAZARDVILLE	16.9				$ 47,500.00	$ 28,500.00	$ 76,000.00
23	ARMORY SWITCHES FOR STATE LINE SIDING					$ 95,000.00	$ 57,000.00	$ 152,000.00
23	ARMORY INSTALL DBL ENDED SIDING AT STATE LINE	19.8	20.1	0.3	161	$ 255,024.00	$ 153,014.40	$ 408,038.40
	Subtotal							$ 36,533,026.94
	Engineering Support during Construction and PM							3,218,695
	Contingency							2000000
	TOTAL PROJECT COSTS							**41,751,722**
	WOOD TIE COST							
	BALLAST	6.66						
	ANCHORS AT 4.00 EACH	0.2564103						
	TIE PLATES AT 2 PER TIE	38						
	PLATE LAGS	9.6						
	PANDROL CLIPS	6.14						
	JOINT BARS AND BOLTS	2.55						
	WOOD TIES AT 46.00 EACH 50% RENEWAL	13.8						
	136 LB RAIL AT 1500/TON	72						
	DRAINAGE AT 15.00/FT	10						
	TREE REMOVAL AND BRUSH CUTTING	2						
	MATERIAL COST PER FOOT	161.00641						
	CONC TIE COST BUY TIES							
	BALLAST	15						
	PANDROL CLIPS	6						
	TIE PAD	5						
	INSULATORS	5						
	JOINT BARS AND BOLTS	2.55						
	CONC TIES AT 85.OO EACH	51.2						
	136 LB RAIL AT 1500/TON	68						
	DRAINAGE AT 15.00/FT	15						
	TREE REMOVAL AND BRUSH CUTTING	10						
	MATERIAL COST PER FOOT	177.75						
	CONC TIE COST TIES IN STOCK							
	BALLAST	6.66						
	PANDROL CLIPS	6						
	TIE PAD	5						
	INSULATORS	5						
	JOINT BARS AND BOLTS	2.55						
	136 LB RAIL AT 1500/TON	68						
	DRAINAGE AT 15.00/FT	10						
	TREE REMOVAL AND BRUSH CUTTING	5						
	MATERIAL COST PER FOOT	101.55						