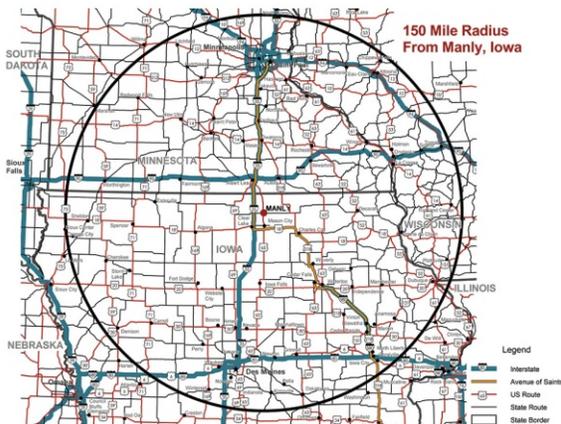


# UPPER MIDWEST TRANSPORTATION HUB MANLY, IOWA

A rural intermodal freight rail/truck transportation project located in north central Iowa (Manly in Worth County, IA) that will serve the northern half of Iowa and the southern one-third of Minnesota.

**Grant Funds Requested:** \$15,957,644

**Supporting Documents:** [www.iowadot.gov/tiger13-freight](http://www.iowadot.gov/tiger13-freight)



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## PROJECT AT A GLANCE

This application is submitted by the Iowa Department of Transportation (Iowa DOT) for the Upper Midwest Transportation Hub (UMTH) on behalf of Manly Terminal LLC, Manly Logistics Park LLC and Iowa Northern Railway Company. The application for the US Department of Transportation's TIGER Discretionary funds requests a total of **\$15,957,644** for the addition of a regional, full-service intermodal facility in Manly, IA at an established yard/terminal. The three principals pledge matching funds of **\$8,655,515** or **35.2 percent** of the cost of the improvement in a public-private partnership. The project consists of rail infrastructure improvements to an existing rail yard, support facilities for crew and operational staff, an administration building, a transload ("container stuffing") facility, a full service intermodal facility with container loading equipment and track infrastructure to support the intermodal activity.

The project presents an innovative solution to an intermodal service dilemma in the Upper Midwest. Currently, shippers and receivers of freight requiring intermodal service in the region most typically truck commodities to intermodal centers in the Chicago area where they enter the national rail system. The north central Iowa location will draw customers from a 150-mile radius which will "balance" Iowa's deficit of empty containers with southern Minnesota's surplus. The UMTH will be an independent facility located on a rural short line railroad that interchanges with six other railroads (including four class I railroads) and through other routing alternatives, with the remaining three class I's.

The benefits of the regional project far outweigh the costs and show these substantial benefits:

<b>8.18</b>	<b>BENEFIT/COST RATIO</b>
<b>1.24</b>	<b>years payback</b>
<b>\$1,809.59</b>	<b>MILLION IN BENEFITS OVER THE LIFECYCLE OF THE PROJECT, USING CONSERVATIVE ESTIMATES, AND DISCOUNTED AT 7%</b>

By far, the largest benefits to be seen from this project accrue to shippers, receivers and ultimately, consumers. A viable, cost-effective intermodal solution opens up a wide range of options and opportunities for the region and the nation through:

- Significantly reduced shipping costs
- Access to both domestic and export markets that were previously unavailable or cost prohibitive
- Diversification by agricultural producers into the growing market for specialized grains, origin identity food and other products that are best suited for intermodal shipment
- Opportunity for grains in containers to enter markets that do not have the infrastructure to handle huge bulk shipments
- Easier for foreign buyers to acquire more US produced food and manufactured products
- Provides efficient intermodal transportation to a region where that service is not economically available by matching the strengths of the trucking and rail industry.
- Provide more export loads to larger ships that will use the expanded Panama Canal which would otherwise need to return empty containers
- Mitigating the long term concerns over critical reductions in capacity within the trucking industry

The Iowa DOT is confident the project can meet all local, state and federal requirements well in advance of June 30, 2014.

## I. PROJECT DESCRIPTION

The Iowa DOT is grateful for the opportunity to present this application for a TIGER Discretionary Grant pursuant to the Full-Year Continuing Appropriations Act, 2013 (Pub. L. 113-6, March 26, 2013), Funding Opportunity Number DTOS59-13-RA-TIGER5.

The Iowa DOT will be the grant recipient. Through an agreement with the Iowa DOT, grant funds will be dispersed to the sub recipients: Manly Terminal LLC (**MT**), Manly Logistics Park, LLC (**MLP**), and the railroad common carrier, Iowa Northern Railway Company (**IANR**). The project included in this application is the next and near final component of a major regional transportation hub at Manly, Iowa.

This TIGER grant application is for infrastructure construction for the **Upper Midwest Transportation Hub (UMTH) Project** at Manly, Iowa. It consists primarily of the intermodal<sup>1</sup> portion of the UMTH Project that will provide the infrastructure for staging, transloading (stuffing) and loading/unloading domestic and international shipping trailers and containers. The development will serve an approximately 150 mile radius encompassing north central Iowa and southern Minnesota where little useful intermodal service is currently available.

Manly, Iowa is currently the home of an approximately 350 acre campus that already serves as a major transportation hub that has considerable long term potential for continued growth. The site currently includes a major rail support and classification yard, a grain terminal, a large liquid transload facility with over 5 million gallons in storage, and the capacity for a multitude of both inbound and outbound products. Expansion of the liquid infrastructure is already underway, and ground has been broken for a large steel distribution facility. A nearly 15,000 foot single track loop is under construction on a 160 acre MLP parcel. Two major portions of the UMTH remain to become a full-service intermodal hub within the existing transportation campus and are the subject of this TIGER grant.

- (1) Infrastructure construction that will provide rail yard support for transloading highway trailers and shipping containers, and
- (2) Infrastructure for a sizeable, full service intermodal facility and container yard.

The overall project is designed to provide an independent, high service and lower cost package of rail, truck and intermodal logistics for Iowa and Minnesota manufacturers, producers and consumers. The project will directly provide lower cost access to domestic and international intermodal service to a large and growing number of shippers/receivers that do not currently have such cost-competitive access. This project will result in reducing the time, distance and related costs for shippers and receivers in the region to access the national and international intermodal network. Existing and potential shippers and receivers in this region will gain more equal and competitive access to the world marketplace and help to achieve our nation's export growth goals.

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<sup>1</sup> **Intermodal freight transport** involves the transportation of [freight](#) in an [intermodal container](#) or vehicle, using multiple modes of transportation (rail, ship and truck), normally without any handling of the freight itself when changing modes. The method reduces cargo handling, and so improves security, reduces damage and loss, and allows freight to be transported faster. Intermodal freight using a combination of truck and rail reduces costs over only road trucking and is the key (and substantial) benefit for intra-continental (domestic) and international use, as well as reduced greenhouse gas emissions. Trans-loading means the actual initial loading of the trailer or container to be further handled intermodally.

Approximately \$40 million has been, or will be in the near-term, invested at the transportation campus, providing a significant foundation in infrastructure and expertise to support an intermodal facility. A TIGER grant investment of \$15,957,644, would provide about one-fourth of the total \$61+ million investment in the transportation hub to date. The proposed TIGER grant project totaling \$24,613,157 includes matching funds of \$8,655,513 or 35.2% of the project cost.

The total project includes improvements within 350 acres of specialized transportation infrastructure. A more complete statement of work is included as Appendix C at [www.iowadot.gov/tiger13-freight](http://www.iowadot.gov/tiger13-freight). The project encompasses three distinct parts of the overall transportation hub, each expanded upon below:

1. Manly Yard – 90 acres
2. Manly Terminal – 100 acres
3. Manly Logistics Park – 160 acres

### 1) Manly Yard (MY)<sup>2</sup>

**Existing Facility** - The IANR's 90-acre railroad yard includes 11 classification and switching tracks with adjacent car repair facility, grain staging tracks, engine house, maintenance of way material yard, food grade transload and support tracks and several other customer trans-load areas, including a new food grade rail-to-truck transfer station. Manly Yard<sup>3</sup> is the critical support yard for IANR interchange with Union Pacific Railroad<sup>4</sup> and provides track support for Manly Terminal and Manly Logistics Park. Construction and rehabilitation of Manly Yard and the adjacent infrastructure is nearly complete after recent investment of approximately \$4.2 million to completely restore tracks 2 through 9, construction of two major bridges to allow track expansion for Manly Yard and Manly Terminal and auxiliary tracks and buildings.

Additionally, repairs to a wooden bridge under tracks 10-11-12 will be completed by IANR during the summer of 2013 at a cost of approximately \$115,000.

**Improved Facility with TIGER grant:** A portion of the TIGER grant will provide for the rehabilitation of the original three tracks 10-11-12 in Manly Yard, and the construction of an administrative building for crew and administrative staff support and a supervisory tower

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<sup>2</sup> Manly Yard is owned jointly by IANR and Manly Terminal LLC.

<sup>3</sup> Manly Yard was originally built in approximately 1918 by the Chicago, Rock Island & Pacific Railroad (Rock Island) for a newly created railroad terminal at the midpoint of Rock Island operations between Des Moines/Cedar Rapids, IA and the Twin Cities. The yard was used continually by Rock Island until about 1980 when the Rock Island liquidated following bankruptcy. The Trustee of the Rock Island conveyed the property and remnants of the railroad yard (only 3 of 20 or so tracks then remained) to the IANR when the IANR purchased the line in 1984. IANR has since restored and lengthened the yard to handle modern day rail equipment and volumes.

<sup>4</sup> Manly Yard also accommodates the interchange of certain grain trains between Union Pacific (UP) and Canadian Pacific (CPR) and a major consolidation point (in conjunction with UP) for fractionation sand originating in Minnesota and Wisconsin. These activities have been caused by traffic congestion at other regional interchange facilities used by the two Class I carriers.



Fig. 1 – Manly Yard - IANR has just completed a major expansion of Manly Yard with the capacity to support the growing logistical needs of the region.

## 2) Manly Terminal (MT)<sup>5</sup>

**Existing Facility** - The 100-acre facility, built in 2007, includes substantial infrastructure for the storage and transfer of liquid commodities, such as chemicals, fuel and fuel components, feed additives and other liquids used in various manufacturing processes throughout the region, and includes 28 acres designed for the handling of heavy dimensional shipments, particularly wind turbine components. Manly Terminal has been functioning since 2007 after an investment of approximately \$22 million.

Since startup, the facility has diversified activities to be responsive to changing shipper’s needs and commodity cycles. Located roughly in the center of a high proportion of ethanol production facilities (see Fig. 2), large volumes of export ethanol were handled through the facility (8,600 carloads from late 2007 through the end of 2011) until the blender’s tax credit expired at the end of 2011. Between mid-year 2008 and through the end of 2012, the facility handled 5,375 carloads of wind turbine components. Major increases in volumes of corn oils, liquids and chemicals used in the manufacturing of bio-fuels and animal feed ingredients are occurring now.

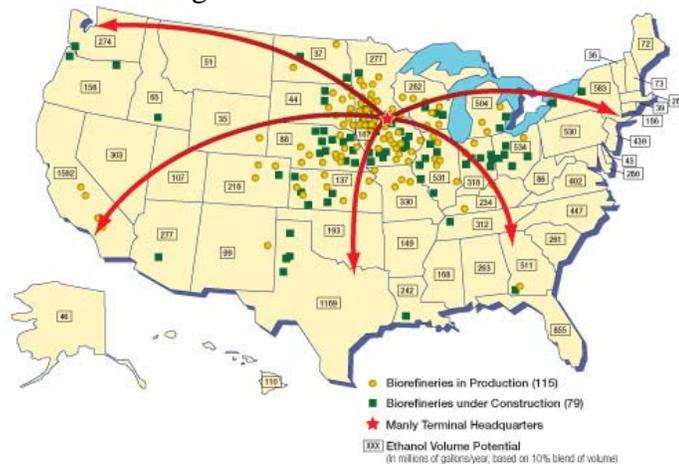


Fig. 2 – U.S. Biorefineries and Ethanol Volumes

<sup>5</sup> Manly Terminal LLC is owned jointly by principals of IANR, L B Transport (LBT) and Keenan Advantage Group (KAG), the latter two firms being regional and national trucking companies, respectively.

Additionally, approximately \$1 million is being invested in 2013 to increase liquid storage and loading capacities for MT customers.

**Improved Facility with TIGER grant:** The TIGER grant portion of this phase would provide conversion of the 28-acre wind component area into a startup intermodal facility and container stuffing facility. Once construction of the full scale intermodal facility is complete in Manly Logistics Park, this part of the project will specialize in origin identity loading of corn, soybeans, (and edible beans) and distiller's grains, primarily for export from the region. Utilization of the prior ground preparation for heavy wind components provides a very suitable location for the initial intermodal operation at much lower entry cost. This infrastructure improvement is an essential element to the overall UMTH campus, by allowing a quick start up of intermodal business and revenue generation within the first few months. This actually puts Manly on the intermodal map in the eyes of freight forwarders and shippers for Class I connections to establish rates, routes and service to get new intermodal business underway as later phases provide long term capacity and room for growth.

### 3) Manly Logistics Park (MLP)<sup>6</sup>

**Existing Facility -** Currently under development, the 160-acre industrial park will handle distribution of steel products, various transload components and commodities, and a large scale intermodal facility with container trailer staging/storage yard. Longer term plans include an eventual cold and freezer storage warehouse and cross dock (not a part of the TIGER project). Once the MLP intermodal facility is in service, the smaller initial intermodal facility in Manly Terminal will continue in service in specialized container loading (called "container stuffing" in the industry) for food products, manufactured goods, export grain, distiller grains, and edible bean products for export. It is contemplated that this campus will eventually also be recognized as a bonded area for US Customs clearance of imported goods to the region.

Additionally, Manly Logistics Park is under construction now with the new steel distribution center and a single loop track with connection tracks to be completed by the end of Q3 2013. These improvements total over \$9 million of completed and work in progress and approximately \$1.5 million in land acquisitions.



Fig. 3 – Future home of Manly Logistics Park

<sup>6</sup> Manly Logistics Park LLC (MLP) is owned jointly by principals of IANR and the Halfman Family LLC (HF). Land is being conveyed by HF as the construction progresses for the new facility. The land is committed to the project and will have a perpetual ownership between at least the two named parties.

Included in the aforementioned costs at Manly have been investments of \$3 million from the State of Iowa and \$1.5 million from Worth County. The balance of investment has come from the principals involved with the various segments of the project and various customer funded projects.

**Improved Facility with TIGER grant:** The TIGER grant would complete the entire MLP intermodal project and container yard fully within the existing loop track, and provide a second loop track to support the expected high volume of business.

In addition, IANR has the expertise and resources to construct and/or rehabilitate track, crossings and related infrastructure that will be part of its contribution to the project.

**Connectivity**

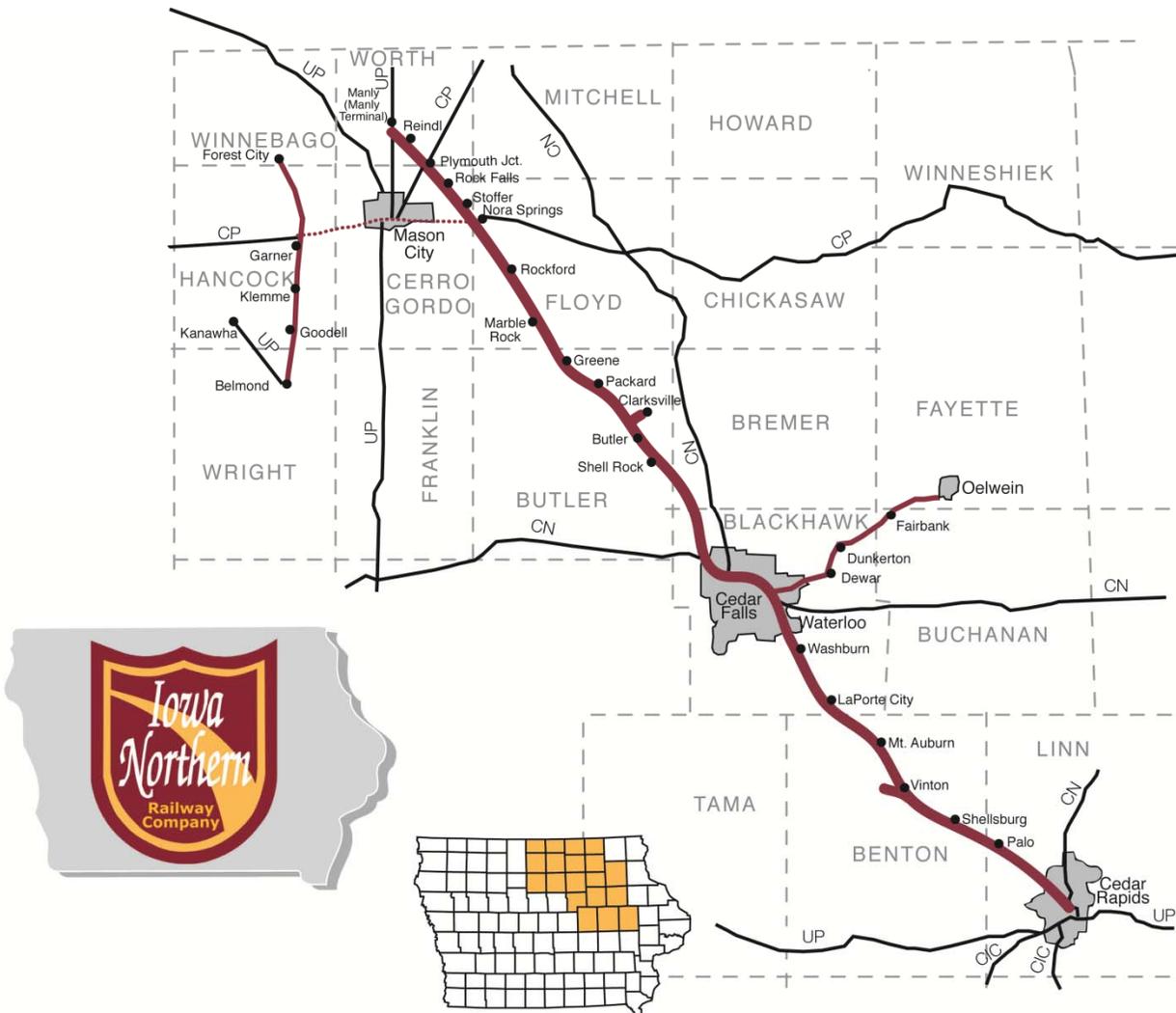


Fig. 4 – Iowa Northern Railroad and connecting railroads

Of major significance for the UMTM is IANR’s connection to so many other rail carriers. Unlike most intermodal facilities in the US, the new independent UMTM at Manly will be open for all of IANR’s

connecting carriers and their connections. This means that Manly will serve as an independent clearing facility for all types of logistical needs with a matrix of options to its customers. IANR connects with:

1. BNSF through haulage agreements (unit trains only) in place with CN. CN can handle IANR-BNSF traffic from Waterloo, IA to East Dubuque, IL, where a handoff is made into the BNSF network;
2. Canadian National (CN) at Waterloo and Cedar Rapids, IA;
3. Canadian Pacific (CPR) at Plymouth Jct. and Nora Springs;
4. Cedar Rapids & Iowa City Railroad (CIC) at Cedar Rapids, IA;
5. Iowa Interstate Railroad (IAIS) through CIC;
6. Union Pacific Railroad (UP) direct interchanges at Manly, Waterloo and Cedar Rapids, IA.

In addition, the other three major carriers, CSX, Kansas City Southern (KCS) and Norfolk Southern (NS) can be connected via numerous route options over the aforementioned carriers. For example, CSX and NS could use the Manly intermodal service through interline connections from CN, CPR, IAIS or UP. KCS could access Manly through UP, CPR and CIC/IAIS.

Each of the carriers have distinct routing, market and service strengths, so allowing access to all connections will provide customers greater leverage in service, equipment and pricing. This means that Post-Panamax ships arriving on the Eastern Seaboard or Gulf on Florida East Coast Railway (FEC), CSX, KCS or NS could interline traffic to and from Manly over one of several available routes. This opens up major market (and higher values) for grain and food producers in the Upper Midwest Region.

Manly is close to three major highway corridors - I-35, I-90, and *The Avenue of the Saints*. In addition, the area that the intermodal facility serves has a rich network of primary highways that can feed freight to the facility.

Also important for consideration is the regional and national trucking firms that UMTH will be working with to support the highway side of the intermodal and transloading operations. Truck bases will be encouraged nearby to facilitate handling intermodal and transload trailers and containers to and from the facility. With new regulations and severe driver shortages, many independent trucking firms may not be able to compete on long-haul moves, so a regional intermodal facility may allow those smaller firms an opportunity to change their business plans and operate successfully with regional hauls.

### **Investment Partnerships**

IANR has made major improvements to its Manly Yard since 2006 with a combination of internally-generated funds and grants and loans from the Iowa DOT and the FRA<sup>7</sup>. Both the State of Iowa and Worth County have invested considerable funds and resources to the current facility. This project will also be a public-private partnership of IANR, MT and MLP capital contributions and federal TIGER funds.

The State of Iowa has invested approximately \$1 million in incremental costs for road improvements on Iowa 9 and US Highway 65 directly related to increased truck traffic at the facility. Worth County has

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<sup>7</sup> IANR was the recipient of an FRA Railroad Rehabilitation and Improvement Financing (RRIF) Loan totaling \$25.5 million in 2007. Loan recipients undergo a rigorous assessment of their current financial status and ability to repay.

also invested \$215,000 in road improvements. These improvements include improved access and capacity to the facilities, turning lanes, increased pavement strength and access roads for the facility.

The infrastructure in place now will provide significant support to the expansion into intermodal markets. Without the existing rail yard support and infrastructure in place, development of a green-field intermodal facility of this magnitude would be over double the estimated cost of this TIGER project application. A green-field large intermodal operation would require additional land acquisition, trackage and other improvements beyond those included in this application. An investment table details the past and future investments in the entire facility in Appendix J.

**Span of Influence**

The project will contribute to improved economic performance based on increased economic activity, job creation and job retention. The impact is substantial and both immediate and long-lasting. The positive benefits on an immediate basis are expected to extend well beyond IANR, MT and MLP employees. The benefits will extend to construction trade workers and suppliers during the project and to the many communities (both on rail and off rail) within a 150-plus mile radius of Manly once intermodal service begins. The 150 mile radius reaches nearly or beyond the South Dakota and Wisconsin borders and includes the Des Moines, IA and Minneapolis/Saint Paul metropolitan areas, as well as Rochester, MN; Cedar Rapids, Waterloo, Ames, Dubuque, Iowa City, IA; and LaCrosse, WI. The 150-mile radius contains a population of 7.4 million.

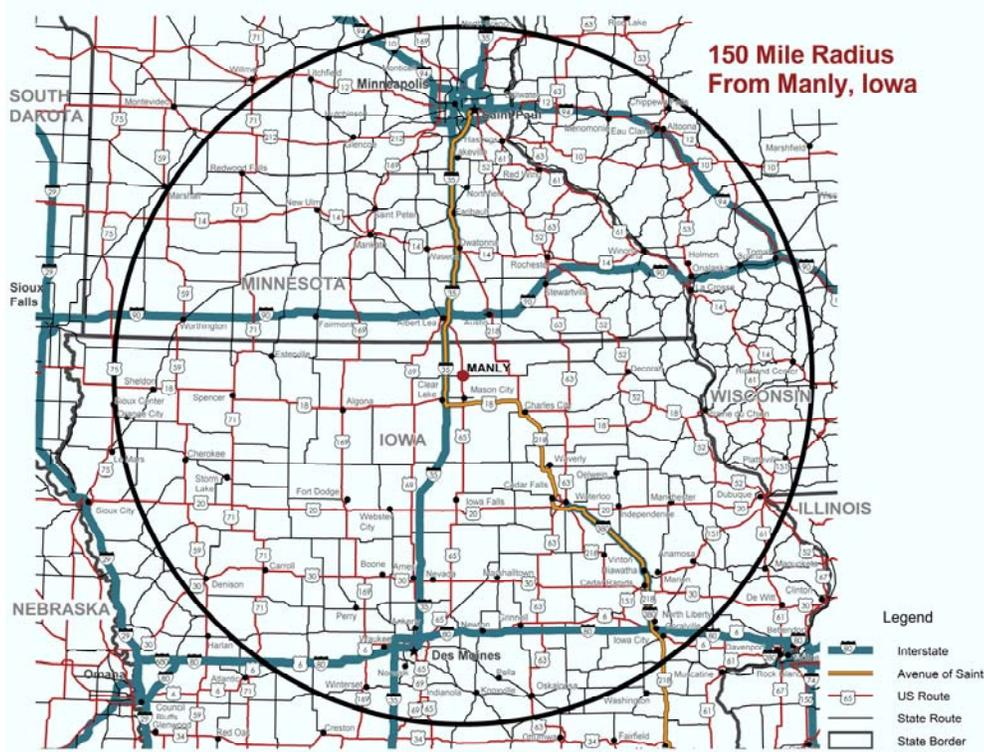


Fig. 5 – 150 mile radius from Manly, IA

Over the long-term there will be beneficial impacts to shippers, receivers, communities, suppliers and others who rely on transportation services, and ultimately consumers. Major changes in the trucking industry, including the current shortage of qualified drivers and stricter hours of service laws (which will be significantly tightened on July 1, 2013) are already having a major impact on the entire logistics

industry. Trucking industry capacity is decreasing and the costs of trucking in the region are expected to increase substantially. The availability for long-haul trucks may therefore be diminished greatly. UMTH will invite trucking firms to join with us to create a more comprehensive approach to doing business together. The proximate access to a major intermodal facility will have a positive impact on regional commodity values and manufactured goods. Finally, there will be substantial leveraged benefits both in the immediate term and over the long term through the economic multiplier effect.

### **The Project is located solely in a rural area.**

The Upper Midwest Iowa-Minnesota region that will be served by UMTH is one of the largest food and fuel production regions in the United States. Production details follow in a later part of this application.

This infrastructure project addresses the needs of the rural area in north central Iowa and south central Minnesota by increasing the ability of UMTH to address the transportation challenges described. By overcoming these challenges through this TIGER project, IANR, MT and MLP will be able to serve beyond the direct rural areas it operates within now and develop more opportunities for those communities and major metropolitan centers within the 150-mile radius region.

The products produced in or shipped to the region need access to major consumption and port centers throughout the world. Those needs include grain and food products, chemicals, fertilizers and minerals, manufactured goods and bio-fuels for emissions reduction programs. By addressing the transportation challenges described in this application, the project will help the wide region of communities through trucking partners using UMTH and the connected national rail network.

### **Transportation Challenges Met by the Project**

The region served by UMTH suffers from a serious lack of nearby intermodal infrastructure and service. In 1980, Iowa had 23 facilities located in 15 cities that were capable of handling intermodal containers or trailers on flat car. Today, due to trends toward “mega” intermodal centers in major metropolitan areas, the state of Iowa has a single facility located on the western border of the state in Council Bluffs.

The availability of efficient international and domestic containerization of freight dictates the success or failure to most shipping companies. Efficient logistical access will be the primary factor in locating a new business or expanding an existing one. The development of a full service intermodal facility to serve the Iowa/Minnesota region will help preserve existing industries by providing better logistical solutions and enhance the ability of the region to attract new industry. The constraints in long-haul trucking capacity and driver shortages make the need for nearby intermodal facilities even more critical.

Iowa is a small consumption state (from a global trade standpoint), so it has a severe imbalance of inbound vs. outbound international shipping containers. According to US Census Bureau Data, the 2011 ratio of non-bulk international commerce (statewide) in Iowa is 1:3 inbound to outbound. This creates a severe shortage of empty containers available to Iowa producers for loading. Empty containers must be shipped or “drayed” into Iowa to meet demand. This dramatically increases cost.

A manufacturer in northern Iowa or southern Minnesota desiring to ship to California, for example, must pay for an empty container to be drayed from Chicago, over 400 miles, load the container, then pay for draying the loaded container back to Chicago for loading into a container train destined for California, which will actually move *through* Iowa on a container train en route to California. This can increase the cost to that shipper by up to \$1,200 per container. This substantially penalizes shippers in the Upper

Midwest. The alternative is to directly truck the product to California, generally at a premium cost. This has been the case for many regional shippers, but new capacity issues in the trucking industry may continue to reduce or even eliminate this direct truck option, making costs even higher for regional producers.

Minnesota’s international commerce is opposite that of Iowa. The 2011 ratio of non-bulk international commerce (statewide) in Minnesota is 6:5 inbound to outbound. Taking a regional approach with consolidation of major portions of the two states provides an almost even match of 7.2:7.6 inbound to outbound, or 1:1.

**TABLE 1 - EXTRAPOLATED IMPORT AND EXPORT VALUE RATIOS**

Value of international Commerce (in millions of dollars)			
	<b>Imports</b>	<b>Exports</b>	<b>Ratio Imports:Exports</b>
<b>Iowa</b>	8,240	13,307	8:13
Less bulk shipments	-6746	-10,411	
Net intermodal -IA	1,494	2,896	1:3
<b>Minnesota</b>	33,124	20,319	33:20
Less bulk shipments	-27,456	-15,654	
Net intermodal - MN	5,668	4,665	6:5
<b>Combined Intermodal Net – IA/MN</b>	7,162	7,561	7.2:7.6 or (1:1)

Source: U.S. Census Bureau Foreign Trade Statistics, 2011

A new, efficient, independent **regional** intermodal terminal in north central Iowa can draw inbound and outbound container loads from a widespread region including much of Iowa and the southern half of Minnesota. The entire bi-state region lacks direct intermodal service to/from Texas/Mexico and California which can be provided through a north central Iowa facility.

Adding domestic truck moves to and from the two states provides a view of the difficulty the Upper Midwest faces to remain competitive in the world marketplace. The following table details the high level of inbound and outbound truck traffic and the forecast increases. These moves include a large, undefined volume of container moves in both directions from and to intermodal facilities in the Chicago area.

**TABLE 2-TOTAL TRUCK MOVES TO AND FROM IOWA-MINNESOTA**

	<b>2011 inbound truck moves</b>	<b>2011 outbound truck moves</b>	<b>2020 inbound truck moves</b>	<b>2020 outbound truck moves</b>	<b>Expected growth by 2020</b>
<b>Iowa</b>	1,906,045	2,405,102	2,480,244	2,806,890	Inbound 30% Outbound 17%
<b>Minnesota</b>	2,477,518	2,443,055	2,957,892	3,235,884	Inbound 19% Outbound 32%
<b>Combined Iowa and Minnesota</b>	4,383,563	5,102,644	5,438,136	6,042,774	Inbound 24% Outbound 18%

Source: FHWA Freight Analysis Framework, Version 3

Currently, the Twin Cities has a moderate level of direct intermodal service, but only to the two coasts of Canada and the Pacific Northwest of the US. The intermodal facilities in the Twin Cities are land locked, open a limited number of hours per day to customer access, and are located on high density, urban, congested roadways and city streets. Many potential shippers are in the area between the Twin Cities and Manly, and in fact many are closer to Manly, so this new access to the international freight

network is attractive. With the UMTH in a rural area, loads will be tendered or picked up quickly, without the inherent congestion experienced in the larger metropolitan areas.

The greatest volumes of commerce for both states are actually with the US eastern seaboard, Texas-Mexico and California. No direct, competitive, time-sensitive intermodal service to these points exists today from the region; therefore, the primary movement of goods to and from the region generally requires the expensive and time-consuming truck or dray moves of containers and trailers to and from Chicago to enter the international intermodal network. With the expansion of the Panama Canal, much larger container ships are expected to use the new canal capacity to connect Asia with eastern US ports. This is expected to provide lower costs for many commodities, yet increases the need for more container loads for return trips. The concept of inland ports recently developed east of Chicago by CSX and NS can be enhanced with more regional intermodal facilities in the Upper Midwest that can be reached through Class I interline agreements. This allows the growing eastern ports to access the Upper Midwest directly by rail instead of unloading in Chicago and draying freight by truck, at added cost, to the Upper Midwest.

After full implementation of the TIGER grant project, the intermodal capacity for the MT portion will be about 50,000 to 60,000 intermodal lifts annually, and the MLP portion will be about 250,000-300,000 lifts annually for a combined total capacity to the UMTH of about 300,000 to 360,000 lifts annually<sup>8</sup>. Based on forecast data from the US DOT's Freight Analysis Framework, the completed UMTH should be able to handle about over 2 percent of the total estimated Iowa and Minnesota truck volumes.

The Phase I improvements on the 28 acre portion of MT allows an initial startup of intermodal service in a short time frame while construction of the larger intermodal infrastructure at MLP is under construction. Once the larger facility is open and equipped for intermodal service, the MT portion will be used mainly as a container/trailer loading site for bulk commodities and will also have lift capability to load the containers or trucks directly onto intermodal flat cars. The "lifts" of both MT and MLP will be supported by IANR at the existing Manly Yard to prepare outbound trains for Class I connections.

A major component of the project will include the acquisition of the specialized equipment that will be necessary to load and unload trailers and containers, transfer loads and empties within the confines of the campus and to load bulk materials into containers. Using best practices from newer and larger intermodal terminals will allow for quick turns for trucks dropping off and picking up loads at the terminal.

### Why Manly, Iowa?

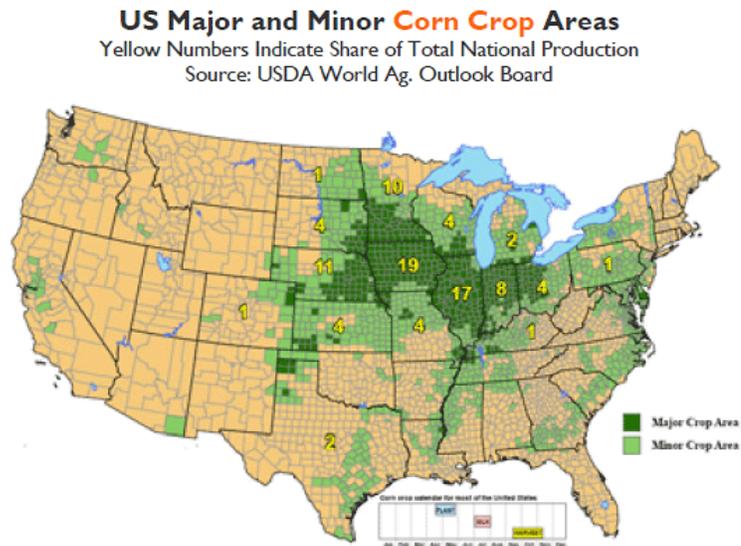
Manly, Iowa is located at the approximate mid-point between Des Moines and Cedar Rapids, Iowa and the Twin Cities and could provide a new hub for commerce in a broad *region* that lacks competitive intermodal service.

- A major *regional* intermodal facility at Manly provides an innovative, positive regional approach to solving the container imbalance situation.

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<sup>8</sup> This capacity estimate can be expanded considerably over time with additional lift equipment and increased rail switching to keep the facility fluid.

- An intermodal terminal at Manly would be an independent, *regional* facility, not just an Iowa facility. It would also become a major trucking center, with high potential for major warehousing and distribution centers nearby and support a wide region of Iowa and Minnesota, potentially extending as well into South Dakota and Wisconsin. It would provide access to the entire North American rail system.
- UMTH would provide access through IANR to all connecting lines, providing a unique option to shippers, receivers and consumers to access the strengths of the various Class I rail carriers connecting to IANR.
- Located near the northern border of Iowa (16 miles from the Minnesota border), Manly is at the geographical center of major manufacturing, production and consumption in the region, primarily composed of the northern half of Iowa and southern third of Minnesota. A substantial volume of commerce exists in the 150-mile radius surrounding Manly.
- Manly is near the ever-growing North American Free Trade Agreement (NAFTA) corridor, primarily based along I-35 with high growth potential for greater volumes of commodities to be handled between the Upper Midwest and Texas-Mexico. Currently, Texas-Mexico markets receive a significant amount of food products from the Midwest and “near-shoring” (manufacturing work that is being relocated from Asia to Mexico) is growing rapidly. Many manufacturers are not shutting down their Asian plants but are moving their incremental growth back to Mexico, in part to reduce transportation costs.
- Manly is in the center of one of the highest production regions in the entire country for corn, soybeans, edible beans, distiller grains, corn oils and food production that needs efficient and reasonable cost transportation options. The 150 mile-radius around Manly includes
  - 66.1 percent of all soybean production (749 million bushels) of both Iowa and Minnesota;
  - 73.8 percent of all corn production (3.56 billion bushels) of both Iowa and Minnesota;
  - 82.3 percent of all ethanol production (5.08 billion gallons) of both Iowa and Minnesota; and,
  - 80 percent of all bio-diesel production (390 million gallons) of both Iowa and Minnesota.
- Many other commodities are plentiful in this region. For example, north Iowa is the largest producer of eggs in the United States. Iowa has approximately 52.9 million laying hens that produced over 14.5 billion eggs in 2011. Over 1.6 billion eggs were produced and shipped out in 2011 from Iowa, with the majority of the production within 100 miles of Manly. New USDA rules will also now allow egg content in frozen foods exported from the US, which will encourage more frozen food processing in the region. Trucking capacity problems have brought the egg companies to Manly, looking for alternatives.
- Nearly 60 percent of all distiller grains and nearly half of all corn oil produced in the United States are produced within 150 miles of Manly, providing a very large export product base along with the corn, soybeans, edible beans and other crops that are important to US trade.



- The project will allow Upper Midwestern grains to be shipped to new markets in containers. According to the USDA Grain Transportation Report dated March 14, 2013, 7 percent of total US waterborne grain exports were shipped in containers, up 2 percent from 2010. Asia is the top destination for US containerized grain exports (96 percent) in 2011.
- Expansion of the Panama Canal will increase ship sizes and open Asian trade to more Gulf and Eastern Seaboard ports. Increased use of independent inland ports, like UMTH will take advantage of these new market routes and expected reduction in ocean shipping costs. Ocean lines can leverage the east and west coast options to reduce rail costs to fill the larger ships and provide greater product values to Upper Midwest shippers.
- New Hours of Service regulations will reduce the feasible distance to efficiently dray containers to major intermodal hubs, so more regional intermodal facilities will be needed to offset these reductions in intermodal facility access and increases in costs.
- Manly is approximately mid-way between Cedar Rapids, Des Moines and the Twin Cities (about 125-130 miles to each). The overlap into both states is critical to get the necessary volume of business and balance of international trade.
- The *less than 130 miles* from both Des Moines and Minneapolis to Manly is significantly less than highway (dray) miles to Chicago. (Des Moines to Chicago is 335 miles; Minneapolis to Chicago is 410 miles).
- Working through a Manly based container yard, ocean lines can position or reposition empty containers within reasonable reach for a predominant number of Iowa and Minnesota shippers at far less cost.
- Planned UMTH intermodal operations would be open 24 hours per day, 7 days per week to insure that all customers have timely access to the facility when they need it.

- UMTH has room for growth and resides in a rural area that would provide little disruption to the area and can be accessed in a non-congested environment for truck movements. Growth can be encouraged instead of discouraged, as it is in more urban areas.
- The region has access to a skilled workforce that is willing to live and work in a rural environment. The jobs provided with a facility and support functions of this magnitude can allow the youth of Iowa and Minnesota to obtain good jobs at home.
- Truck bases at Manly can be developed at lower cost than the current services provided in larger cities.
- UMTH could become the prototype for an innovative approach for similar regional facilities nationwide.
- Very few other locations could be built quickly on available property, adjacent to or connecting with major Class I lines and with much of the needed rail and highway infrastructure already in place.

## II. PROJECT PARTIES

There are three parties that would be sub recipients of this Iowa DOT TIGER grant application. They are: 1) Iowa Northern Railway Company (IANR); Manly Terminal LLC (MT); and Manly Logistics Park LLC (MLP). A significant presence is already in place at Manly, developed by the three parties.

**Iowa Northern Railway Company** (IANR) is a short line or Class III railroad formed in 1984 following the liquidation of the assets of the Chicago, Rock Island & Pacific Railroad Company (CRI&P).

IANR was incorporated in the State of Iowa on February 22, 1984 by a group comprised mostly of grain elevators located along the line and a few outside investors. In July of 1984, INRC, Inc. ("INRC"), an Iowa Northern affiliate, purchased from the CRI&P Trustee the railroad line located between Cedar Rapids and Manly, Iowa for \$5.55 million.

In November 1994, the Iowa Northern Acquisition Company ("INAC"), a Delaware corporation, owned by several investors including the President of IANR, Daniel R. Sabin, purchased IANR and INRC and merged both into the Iowa Northern. In 2010, The Andersons (ANDE) of Maumee, Ohio became minority equity investors with IANR principals.

Today, IANR is unique as a short line railroad, with a strong primary traffic base local to the line, and in the center of a market territory with heavy growth in renewable energy of all forms and bio-based, value added agricultural commodities. IANR is also unique to have multiple rail connections providing IANR customers an unusual set of options to provide lower costs and greater routing options. It feeds traffic to and from the various Class I connections and provides a vital service to the region.

The IANR main line runs diagonally from northwest to southeast, between Manly, Worth County, Iowa and Cedar Rapids, Linn County, Iowa. IANR also operates two branch lines, one of which is located between Oelwein and Waterloo, (Fayette and Buchanan Counties), Iowa; and the other between Forest City and Belmond, (Winnebago, Hancock and Wright Counties), Iowa.

IANR today operates over 225 route miles of main and branch line track, including 116.74 route miles owned by IANR and approximately 51 miles of trackage rights or leases.

**Manly Terminal, LLC** was organized in Iowa on April 12, 2006 and became a Delaware company on May 18, 2007. The owners are Zephyr-Rocket, LLC, a firm owned by principals of IANR, L. B. Transport, a Kiewit family-owned regional trucking company from Buffalo Center, IA, and Keenan Advantage Group (KAG) a national trucking company based in Canton, Ohio.

**Manly Logistics Park** was organized as an Iowa limited liability company on August 28, 2008. MLP is owned by Zephyr-Rocket LLC, an affiliate of IANR, and Halfman Family LLC, previous owners of the property, residing in Manly, Iowa.

### III. GRANT FUNDS AND SOURCES/USES OF PROJECT FUNDS

#### Sources of Project Funding:

This application requests \$ **15,957,644** in TIGER grant funding.

SOURCE	AMOUNT	PERCENTAGE
TIGER grant request	\$15,957,644	64.8%
IANR-MT-MLP funds:	<u>8,655,513</u>	35.2%
<b>Total Project Cost:</b>	<b><u>24,613,157</u></b>	<b>100%</b>

Significant investments have been made to the Manly Yard, Manly Terminal and Manly Logistics Park to date. When considering the overall investments in the UMTH, the project portion funded by the TIGER grant will represent 25% of the total investment at UMTH.

Other past and future investments in the entire transportation hub are detailed in Appendix J.

#### Uses of Project Funding:

The project portion funded by the TIGER grant and matching funds will be done in four phases over an 18-24 month period. However, intermodal operations will be able to start up in the first full construction season.

PHASE	TIGER	MATCH
Phase I-A	\$3.24 million	1.89 million
Phase I-B	1.88 million	.31 million
Phase II	4.51 million	6.45 million
Phase III	5.18 million	0.00 million
Phase IV	1.14 million	0.00 million
<b>Total</b>	<b>\$15.95 million</b>	<b>\$8.65 million</b>

**Phase I-A- Improvements to Manly Terminal**-Involves improvements to the 28-acre wind component area and track 51 to be upgraded to handle initial startup intermodal business. This phase includes paving, fencing, gate management, security, acquisition of lift equipment and other components to get the business moving. It will also provide for the stuffing (loading) of containers with regionally produced bulk products and will continue for that purpose in the future.

<b>TABLE 5 - PHASE I-A</b>	
<b>TIGER grant request</b>	\$3.24 million
<b>Matching funds</b>	\$1.89 million
<b>Total</b>	\$5.13 million

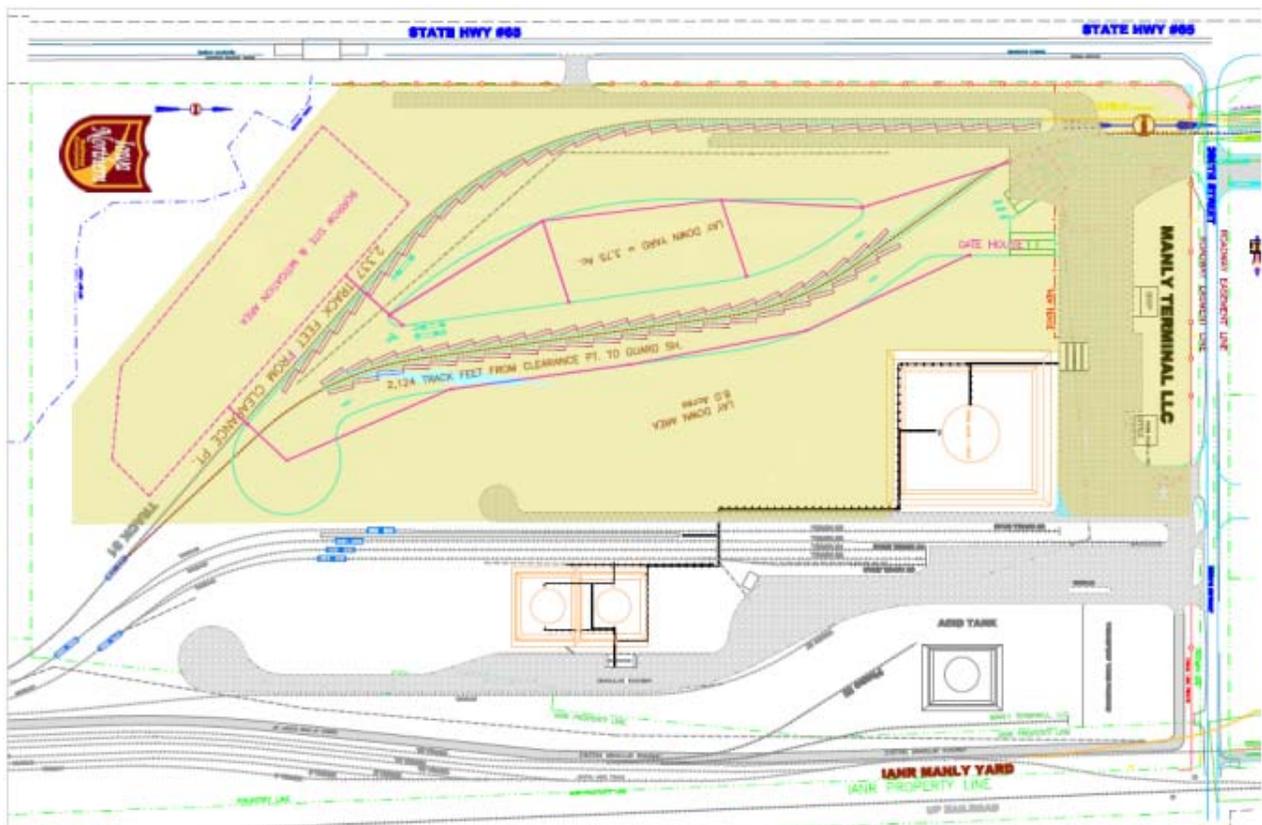


Fig. 7 - Diagram of Manly Terminal – Yellow shaded area shows general area of construction

**Phase I-B-Improvements to Manly Yard - Intermodal** (simultaneous with Phase I-A) is the rehabilitation of the three remaining old yard tracks 10-11-12 that will replace all ties and rail, and construct an administrative building that will house needed IANR employees, supervisors and customer support for the entire UMTH operation.

<b>TABLE 6 - PHASE I-B</b>	
<b>TIGER grant request</b>	\$1.88 million
<b>Matching funds</b>	\$ .31 million
<b>Total</b>	\$2.19 million



Fig. 8 - Diagram of Manly Yard – Yellow shaded area shows general area of construction

**Phase II-Improvements to Manly Yard - Tracks 10, 11 & 12-** Involves all track work to be completed for the MLP Intermodal Facility, including the second loop track and four intermodal tracks that will eventually be under crane. The TIGER grant will provide the material for construction and IANR-MLP will provide land conveyance, equipment and labor for construction of the tracks as match. This phase will provide the entire rail support infrastructure for the long-term facility growth.

TABLE 7 - PHASE II	
TIGER grant request	\$ 4.51 million
Matching funds	\$ 6.45 million
<b>Total</b>	<b>\$10.96 million</b>

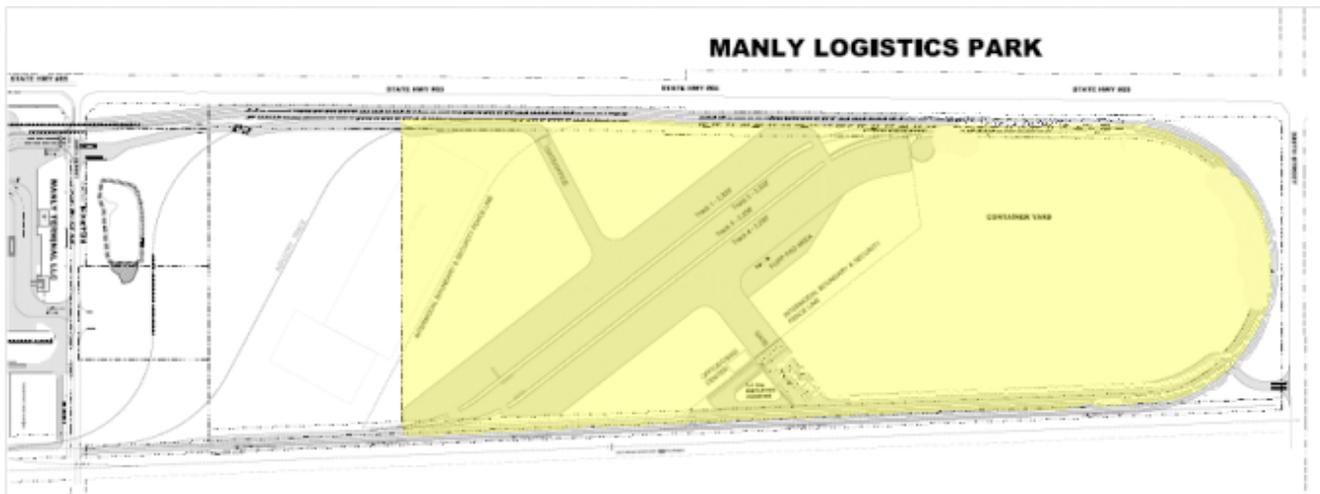


Fig. 8 - Diagram of Manly Logistics Park – Yellow shaded area shows general area of construction within outer loop track

**Phase III-Improvements to Manly Logistics Park – Intermodal -** Involves the construction and installation of the operating intermodal facility on MLP, including drainage and storm sewer installation, access roads, parking lots, paving, fencing, lights, gates, sewer/septic, electrical, gas, potable water, communication, security systems, etc. The container storage yard will be constructed. Intermodal yard office, gate and security system will be installed and ready to come on-line.

**TABLE 8 - PHASE III**

<b>TIGER grant request</b>	\$5.18 million
<b>Matching funds</b>	\$0.00 million
<b>Total</b>	\$5.18 million

**Phase IV-Improvements to Manly Logistics Park Intermodal Final Phase** This phase involves all final paving and marking of roadways, considerable signage and final ground preparation for the operating intermodal facility on MLP that is to be completed after Phase II and Phase III construction by outside contractors.

**TABLE 9 - PHASE IV**

<b>TIGER grant request</b>	\$1.14 million
<b>Matching funds</b>	\$0.00 million
<b>Total</b>	\$1.14 million

The benefits included in this application are predicated on completion of all phases of the project.

## **IV. SELECTION CRITERIA**

### **A. Long-Term Outcomes**

#### **i. State of Infrastructure and Good Repair**

The new construction at UMTH will be a state-of-the art logistics facility that will provide a wide variety of services to producers, shippers, receivers and consumers. It will be built at a high standard of construction that will provide decades of transportation support to the region.

The UMTH is well positioned to add intermodal services to an already diverse selection of transportation services. IANR’s initial purchase in 1994 was of a badly deteriorated rail line which handled less than 15,000 revenue cars annually and at an average track speed under 10 mph. Derailments were common and had to be eliminated. IANR has rehabilitated the line and built a thriving short line railroad that is now handling approximately 60,000+ revenue cars annually at an average speed of 25 mph. Derailment costs have been dramatically reduced and operating safety and efficiency increases each year.

The line has become a vital piece of the regional rail transportation system. IANR has relentlessly pursued new business and business opportunities, including the development of Manly Terminal and the evolving Manly Logistics Yard utilizing outside investors, when needed, to provide needed capital. IANR, MT, and MLP have demonstrated the ability to raise equity for significant improvements and their operation and upon completion, the parties will market and maintain the facility improvements to become another key element of the overall transportation system.

The existing yard facility, expanded track structure, highway/railroad crossing signals and other infrastructure improvements provide the facilities and operational foundation for a fully functioning intermodal center with a limited investment for new infrastructure.

Rehabilitation of existing track in the Manly Yard will bring the remaining three tracks in the yard that have not been rehabilitated up to current standard of good repair. These tracks will be essential in supporting the expanded rail operations at the MT and MLP intermodal facilities as well as better serve other customer requirements.

In addition to normal maintenance and repair of the highway system, the Iowa DOT and Worth County have invested over \$1.2 million in highway improvements to accommodate heavy truck traffic in the area.

An avoidance of heavy trucks on the highway system reduces highway maintenance costs, particularly pavement resurfacing and maintenance costs. Typically, this benefit is realized in terms of increased cycle times between maintenance work orders. The Economic Analysis provided by HDR Decision Economics and included in full as Appendix A, estimates a savings of \$351.65 million in reduced pavement maintenance costs over a 20 year period of operation.

## **ii. Economic Competitiveness**

IANR is a leader in the development of new business handling transportation and distribution of clean, renewable energy commodities, such as wind turbines and related components, biofuels such as ethanol and biodiesel and bio-mass commodities, such as crop waste to fuel.

IANR is constantly working on creative and innovative approaches to business which encourages customers to build and expand their production and distribution facilities along the line. IANR is also unique as a short line, with multiple connections to other rail carriers, allowing customers on IANR to reach the entire North American rail network easily and efficiently. IANR customers are provided the most competitive freight rates with the leverage that comes with multiple outlets to ship their freight.

UMTH might not have been possible even a few years ago, but the need for a new regional transportation hub in the Upper Midwest will continue to be a critical answer to growing transportation cost increases and efficient access into the national and international shipping network. UMTH will be particularly unique, with reasonable access from a multitude of rail lines and trucking firms that can tap the strength of their own networks with a modern and efficient transportation center.

### *Distressed Areas*

The location of this project is in Worth County, IA which is designated as a distressed area. Additionally, within the 150 mile radius that the project will serve, there are an additional 14 counties in Iowa, 11 counties in Minnesota, and 12 counties in Wisconsin that are classified as distressed. Providing opportunities for additional development and new markets for agricultural products in these 37 counties will have a significant in helping their economies. See Appendix L for a map and listing of designated counties.

### *Benefits to shippers and receivers*

Perhaps the most important benefit is the long term economic benefits to the users of UMTH. The proposed project would contribute to enhancing the economic competitiveness of the area, region and nation through improvements in the mobility of goods within and across the study area.

The benefit cost analysis determined that over the lifecycle of the project, \$702.80 million would be saved in travel time and out-of-pocket cost savings due to the UMTH project. Shipper cost savings from modal switch and shorter intermodal routes accounts for **roughly 39% of the total benefits** generated with this project.

**TABLE 10 - ESTIMATES OF TRAVEL TIME AND OUT-OF-POCKET TRANSPORTATION COST SAVINGS, MILLIONS OF 2012\$**

	<b>In Project Opening Year, Discounted at 7%</b>	<b>Over the Project Lifecycle</b>	
		<b>In Constant Dollars</b>	<b>Discounted at 7 Percent</b>
<b>Shipper Savings due to Modal Switch from Truck to Rail</b>	\$3.86	\$1,616.58	<b>\$702.80</b>

*Assumptions that were used*

Detailed base case information is not available on confidential freight rates, but certain assumptions have been made in an attempt to quantify the long term benefits to shippers. One key assumption is the source of the lifts for the intermodal operations. After numerous discussions with shippers, producers and trucking companies, an assumption has been made that 1) some existing intermodal moves will be diverted from more distant facilities, like the congested Chicago area, 2) there will be a conversion of current truck moves to intermodal as a consequence of the opening of UMTH, and 3) the existence of a regional intermodal terminal will provide “induced loads” that will originate because of the existence of the new intermodal facility<sup>9</sup>. The discussions also provided reasonable estimates of the logistics involved and potential savings as a consequence of establishing a major intermodal facility at Manly.

A conservative approach has been taken on the truck-miles saved as a consequence of the opening of UMTH, with 1) existing intermodal moves netting a 250 mile savings and 2) conversion from other truck moves netting 1,500 mile savings. A sampling of various destinations was used to establish the 1,500 mile savings as shown in the table below. These same assumptions were used as a basis for truck ton-mile savings in calculating highway damage and build-sooner costs.

**TABLE 11 - SAMPLE OF TRUCK MILES SAVINGS**

<u>Destination Area</u>	<u>Highway Miles</u>	<u>Volume per 1,000 Loads</u>	<u>Pct.</u>	<u>Total Truck Miles Per 1,000 Loads</u>
<b>Los Angeles</b>	1,789	400	40%	715,600
<b>Bakersfield</b>	1,879	100	10%	187,900
<b>San Antonio</b>	1,086	150	15%	162,900
<b>Jacksonville</b>	1,342	100	10%	134,200
<b>Atlanta</b>	1,342	50	5%	67,100
<b>Baltimore</b>	1,035	100	10%	103,500
<b>Savannah</b>	1,258	50	5%	62,900
<b>Miami</b>	1,609	50	5%	80,450
<b>Total</b>	11,340	1,000	100%	1,514,550

<sup>9</sup> In December, 2006, Wellspring Management provided an assessment of the impact of Union Pacific’s construction of their Global III Intermodal Facility in a rural area of Northern Illinois at Rochelle, Ogle County. The presence of the intermodal activity provided an abundance of shipping containers that were otherwise being returned overseas empty. Considerable increases in commodity values were recognized quickly, and the origin-identity opportunity brought massive new market opportunities to the region. Most of the grain products converted to container loads had been trucked locally to river terminals for handling by barge, grain elevators for rail shipment, or delivered to local processors.

**Weighted Average** **1514.55**

The same two categories require an estimate of actual freight savings vs. straight truck moves to existing intermodal facilities. One factor of consideration will be lower intermodal charges from high density intermodal hubs like Chicago, so an estimate of net freight savings has been assumed with 1) diverted intermodal movements saving \$350 per lift, 2) conversion from straight highway move by truck saving \$900 per lift, and 3) new “induced” business would not provide meaningful truck savings.

Florilli Logistics, an Iowa based trucking company that handles large volumes of both refrigerated and dry freight within the region and the entire country, compared the assumptions with confidential traffic flow data in-house and confirmed that the assumptions were reasonable.

Using the above assumptions, the following table illustrates the projected lifts, truck miles saved and the assumed net freight savings *expressed in current dollars and not discounted*.

**TABLE 12 – PROJECTIONS OF ACTIVITY AND SAVINGS AS A RESULT OF UMTH**

Year of Operation	Total Projected Lifts	Diverted Intermodal Lifts	Conversion truck to I/M Lifts	Induced Lifts	Assumed Truck Miles Saved Per Year	Assumed Net Freight Savings Per Year*
2014	10,000	1,500	8,000	500	12,375,000	7,725,000
2015	75,000	18,750	56,250	11,250	89,062,500	57,187,500
2016	115,000	34,500	80,500	23,000	129,375,000	84,525,000
2017	153,000	56,610	96,390	38,250	158,737,500	106,564,500
2018	179,600	70,044	109,556	49,390	181,845,000	123,115,800
2019	206,520	82,608	123,912	59,891	206,520,000	140,433,600
2020	238,644	83,525	155,119	71,593	253,559,250	168,840,630
2021	262,079	78,624	183,455	85,176	294,839,190	192,628,271
2022	288,223	86,467	201,756	100,878	324,250,598	211,843,724
2023	293,987	88,196	205,791	102,896	330,735,610	216,080,598
2024	299,315	89,794	209,520	104,760	336,729,276	219,996,461
2025	304,744	91,423	213,321	106,660	342,836,606	223,986,583
2026	310,275	93,083	217,193	108,596	349,059,810	228,052,409
2027	315,912	94,774	221,138	110,569	355,401,142	232,195,413
2028	321,656	96,497	225,159	112,580	361,862,903	236,417,096
2029	327,509	98,253	229,256	114,628	368,447,436	240,718,991
2030	333,180	99,954	233,226	116,613	374,827,506	244,887,304
2031	338,960	101,688	237,272	118,636	381,330,233	249,135,752
2032	344,852	103,455	241,396	120,698	387,958,046	253,465,923
2033	350,856	105,257	245,599	122,800	394,713,421	257,879,435
2034	356,977	107,093	249,884	124,942	401,598,885	262,377,938
2035	363,215	108,965	254,251	127,125	408,617,014	266,963,116
20 Year	5,789,504	1,791,059	3,997,945	1,931,431	6,444,681,926	4,225,021,045

\* Assumed freight savings shown in current dollars.

As stated, the cost benefit analysis did not take induced traffic into account in calculating savings. Induced business refers to some volume in lifts that is made up of lifts that aren’t currently moving in the base case (i.e., “new” business or business in addition to existing demand). The presence of the intermodal hub at Manly will create new business opportunities through providing access to markets that were previously non-economical. Any induced business will only add to the benefits.

### *A solution to truck capacity constraints*

A major evolution is underway, whereby trucking firms and railroads will be working closer together to tap the efficiencies of rail while helping to solve the serious capacity crisis that is befalling the trucking industry. According to Derek Leathers, President and COO of Werner Enterprises, “Truckload capacity has dropped 17.6% since the end of 2006.” More conversion to intermodal with railroads will be the key to offsetting the reduction in the trucking industry’s capacity crisis. Reasons contributing to the decrease in truck capacity include<sup>10</sup>

- Driver quality regulations such as the Compliance Safety Accountability (CSA) program will remove some truckers from the industry
- Upcoming hours-of-service (HOS) regulations are expected to reduce the productivity of the remaining drivers and the mandatory overnight rest periods will also take trucks off the road during the most productive and least congested times of the day. Productivity “hits” from these two regulations are estimated to be 3 to 5 percent, respectively.
- Driver pay is not high enough to encourage new entrants into the industry. U.S. Bureau of Labor Statistics wage data that indicated U.S. tractor-trailer driver wages only averaged \$39,830 in 2011, significantly below the overall U.S. average annual wage of \$45,230 that year.
- Truck capacity is at a four-year low, encouraging many shippers to shift more freight away from trucks to truck-rail intermodal service, even for shorter lengths-of-haul than in the past, with the fastest growing intermodal length of haul is in the 500 to 750 mile range
- Recent intermodal investment by railroads has been concentrated in areas that will go toward serving origin-destination pairs that were not historically served well by intermodal. Most of the large intermodal providers have added very significant volumes of domestic containers within the past year – with J.B. Hunt being the most significant – so a shortage of intermodal capacity should not develop.
- Intermodal trailer/container fleet increased by 4,500 units in 2012, with the total number of domestic containers in the U.S. – managed by either railroads, motor carriers, or third party logistics providers (3LPs) – totals about 215,000 units, up 14,500 units from 2011.

UMTH is prepared to approach the opportunity in a unique way. By opening the facility to all interested stakeholders, Class I carriers, freight forwarders, independent and fleet trucking firms, high capacity facility away from metropolitan congestion, a new era of logistics facilities will begin. UMTH will receive revenue on a “lift” basis, and IANR will be compensated for the rail support with a portion of the lift charge, and from being a primary equity player in the entire facility. The economies of scale for a facility of this size will keep costs down and provide the principals with on-going revenues to continue maintaining and upgrading the facility.

### *Short term economic impacts and employment in rural area*

The number of long term employees will follow the “lift” volumes of the facility. This estimate of lift growth utilized in the Benefit Cost Analysis is quite conservative and could actually be met in a much shorter time span.

Total employment at the IANR as of May 15, 2013, is 101 employees. Approximately 36 are in Transportation; 25 in Maintenance-of-Way; 15 in Equipment Maintenance and 25 are members of the marketing, professional and administrative staff.

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<sup>10</sup> Ron Sucik, founder of RSE Consulting, May 2013 webinar hosted by Wall Street investment firm Stifel Nicolaus.

The proposed project scope indicates that 10 direct, on-project jobs are expected to be created by IANR with approximately 12 full-time jobs after the project is underway, and additional positions added as the facility grows.

During the immediate period after award of a TIGER grant (between the award date and December 31, 2014) IANR and UMTH expect to have its construction contractors employ approximately 35-45 workers for the project.

The benefit cost analysis estimates over the lifespan of the project the following project spending and job-year estimates.

**TABLE 13 - PROJECT SPENDING AND JOB-YEAR ESTIMATES WITH IMPLAN AND CEA METHODOLOGIES**

	Spending (Millions of 2012 Dollars)	Employment Impacts (Job-Years)			
		Direct	Indirect	Induced	Total
<b>IMPLAN *</b>	\$24.61	218.2	92.4	166.8	477.4
<b>CEA</b>		204.8		115.2	320.0

*Note: \* Employment impacts from IMPLAN should not be interpreted as full-time equivalent (FTE) as they reflect the mix of full and part time jobs that is typical for each sector.*

During the construction period (2014 to Q2 of 2015) a total added value to the economy in spending and jobs is estimated at \$35.98 million.

Included within these figures are certain employment and spending in key industries (during the construction period) employing low-income people, such as retail industries, services to buildings and dwellings, the hospitality and personal care industries and others. Estimated impacts in these industries are the creation of 77.1 job-years and labor income totaling \$2.25 million.

In a rural economy, this level of short and long term employment will have a significant impact on the region.

**iii. Livability and Community**

The UMTH project will contribute to enhancing livability and quality of life through the reduction in highway congestion by displacing heavy truck travel to rail. The reduction in congestion represents a time savings for the remaining on-road motorists that was quantified in the benefit cost analysis. The congestion savings from the modal switch and shorter intermodal routes is valued at \$199.74 million over the life cycle of the project.

Additionally, UMTH is a Midwestern logistics campus, run by Iowans and Midwesterners. Its sole purpose is to serve the customers in the communities in the rural, yet productive region it serves. Unlike the railroad experience of the past few decades, IANR is growing and creating new and creative economic opportunities for the region.

IANR and UMTH focuses on a vision of what rural Iowa can be doing to enjoy economic vibrancy in the 21<sup>st</sup> century. With good rail transportation, good schools, a solid work ethic and affordable housing, small towns in Iowa and the Upper Midwest region will become more and more attractive to new industry. An expanded logistics infrastructure in the north central region of the nation becomes very

important for the development of future economic rural development and additional employment opportunities.

The UMTH is located in rural, north central Iowa, and is consistent with local land use plans and policies. Existing surrounding land uses are row crop agricultural, with the Manly facilities zoned as light industrial.

The Iowa DOT also recognizes the importance of rail infrastructure on the continued economic health of rural Iowa by its support for short line and regional railroads (as well as Class I railroads) through its planning processes and a history of financial assistance available to short lines and rail served industry, particularly in rural or small town locations.

#### **iv. Sustainability and Environmental**

Freight carried over the rail network imposes less environmental impacts for the same amount of cargo than those imposed by trucks on the highway network. An estimation of the value of reducing greenhouse gas and critical air contaminants associated with transporting goods on rail as opposed to truck can be calculated. The Benefit Cost Analysis estimates over the lifespan of the project a reduction in emissions valued at \$162.50 million, discounted at 7 percent.

#### **v. Safety**

Fatality and injury rates per mile of freight carried by truck are greater than the fatality and injury rates for an equal volume of cargo when shipped by rail. The safety benefits over the lifecycle of the project are estimated at \$392.90 million. This is based on the less truck miles due to the modal shift, using the standard TIGER guidelines for accident values and based on accident rate data published by the US DOT, Bureau of Statistics.

#### **vi. Project Readiness**

Iowa DOT is prepared to work vigorously with IANR, MT and MLP to prepare agreements for disbursement of funding and obtain the required Categorical Exclusion (addressed in Section V below). IANR, MT and MLP are prepared to commence this project as soon as funding is awarded, agreements are signed and NEPA authorization is received.

Planning for the facility improvements has been ongoing and refined over the past few years. Railroad engineering for the project is expected to be done in-house by IANR personnel and reviewed by an outside engineering consultant that ensures a rapid path toward construction. The plan is to seek construction bids, and purchase supplies and equipment as quickly as possible. IANR will act immediately to spend or obligate the TIGER funds with the goal of having all funds expended by December 31, 2014.

The UMTH project is designed to be started up in stages. MT and IANR will be working together to start intermodal operations at MT in a small scale manner. The anticipated start-up costs and on-going operations of the intermodal side will be a rather small portion of the existing operation at Manly for both entities and will not place a financial burden at start-up. Hiring of staff and acquiring equipment will coincide with traffic levels and derived revenues.

The small scale startup of intermodal operations at MT will allow the parties to maintain cost controls and establish a larger scale operation over a period of time, as the traffic scales up. Both MT and IANR have considerable experience in taking on new business and are confident that if the TIGER Grant is

approved, the entities will be in good position to scale up the activities of MLP while having a solid base of operations and revenues in place with the early phases at MT.

The proposed project construction schedule is contained in Appendix E located at [www.iowadot.gov/tiger13-freight](http://www.iowadot.gov/tiger13-freight). The proposed schedule demonstrates that the UMTH project construction can begin quickly upon receipt of a TIGER Discretionary grant. The proposed schedule also indicates that once construction starts the TIGER funds will be spent steadily and expeditiously throughout the length of the project.

The proposed schedule (Appendix E) anticipates obligations of funds in March of 2014, which provides a three month period of time for unexpected events before the preferred obligation date of June 30, 2014 and a total of five months until the obligation deadline. Because this project is anticipated to have transportation and economic benefits that are far ranging and long lasting to the state and region, the Iowa DOT is prepared to assign additional resources to assure that the progress of the project stays on track.

IANR (a key player in all segments of the project) has demonstrated through past state and federally funded projects that they have the staff, ability and willingness to shepherd this project and devote the necessary resources to it.

The primary risk is the unforeseen and highly unlikely discovery during environmental surveys that will be undertaken this summer. These studies will be accomplished by Sept. 1, 2013. In the unlikely event that there is a significant discovery that will make it impossible to prepare mitigation plans in sufficient time or meet the obligation date, the application will be withdrawn prior to award.

This project is consistent with Iowa DOT's 2009 Iowa Railroad System Plan and is included in the 2013-2016 Iowa Statewide Transportation Improvement Program (STIP) as an illustrative project (see letter from Iowa DOT Planning, Programming and Modal Division Director included in Appendix G). The Iowa DOT has long recognized that a lack of nearby intermodal facilities is a hurdle to further growth and constrains the freight shipment capacity and raises prices for Iowa shippers/receivers needing intermodal service. As early as 1997, the Iowa DOT contracted with a consultant to complete a study on intermodal facilities. The regional approach proposed in this grant proposal provides an innovative solution to the primary complication of container imbalance. If awarded a TIGER grant for this project, the Iowa DOT will amend the 2009 Iowa Railroad System Plan to specifically include this project in the project investment section. The STIP will also be amended to move the project from an illustrative project to a funded project.

## **b. Innovation**

The innovation of this project is far-reaching, from improving transportation economics for producers, shippers and consumers, to social benefits for citizens of the region to reduction of urban highway congestion to mitigation of environmental concerns. This project prepares the region for expected growth in commerce and freight movements while consolidating the strengths of the various modes of transportation in a productive manner.

This project is quite innovative as it provides a regional approach to solving growing problems in highway and bridge infrastructure repair and maintenance, (highway damage and build sooner costs); a growing crisis in long term capacity of the trucking industry; reduction in highway congestion; reduction in environmental concerns; limited access to many rural producers, shippers and receivers to

cost efficient intermodal service; mitigating the higher costs of freight for a large number of freight purchasers.

This project will align with the continuing development of both national railroad and highway infrastructure. It is expected that rail will continue to be a major contributor to the economic well being of the nation in the coming decades by increasing efficiency, reducing fuel consumption, reducing congestion, reducing emissions and providing additional, safe, efficient and reliable transportation capacity for development.

This project addresses the imbalance of inbound and outbound international shipping containers that can be inherent to major intermodal facilities built in major metropolitan areas. For example, current international trade places large numbers of empty containers in consumption markets like Dallas-Ft. Worth, Memphis and Indianapolis. Shipping lines may decide to use UMTH as a location to relocate some of those empty boxes for re-loading; otherwise the empty boxes are shipped back to Asia without back-loads. With massive volumes of production, the region served by UMTH will almost always have a potential load for outbound movement.

The project also provides an avenue for future growth that is central to the logistical needs of the region, but away from the congestion and higher costs of a major metropolitan area. UMTH will provide a terminal with easier access to make more efficient use of the reduced capacity of the trucking industry and reduce negative environmental impacts. It will provide needed employment for areas that are normally limited in opportunities to keep young people in the area.

### **c. Partnership**

Since 1984 the State of Iowa, through the coordinated and combined efforts of the Iowa DOT, Iowa Railway Finance Authority and Iowa Economic Development Authority, has provided loans and other support to assist IANR in bringing the rail line up to a safe and efficient operating condition.

The Iowa DOT and Worth County have made highway improvements to accommodate increased heavy truck traffic.

Both Iowa DOT and IANR have worked with the FRA on federally funded grants and are familiar with the processes and requirements of such grants. IANR was the recipient of two Railroad Rehabilitation & Repair Grants which are administered by the Iowa DOT.

The continued support and involvement of both federal and state administrative agencies and legislative bodies to assist IANR speaks volumes about the strong private-public partnership which exists. This project is an extension of that partnership to advance the public interest which IANR serves.

The IANR project is strongly supported by the Honorable Terry Branstad, Governor of Iowa; the Honorable Kim Reynolds, Lieutenant Governor of Iowa; the Iowa Economic Development Authority; the Iowa Department of Agriculture and Land Stewardship, the Iowa DOT; and the Minnesota DOT and others. Letters of support can be viewed on the Iowa DOT's web page [www.iowadot.gov/tiger13-freight](http://www.iowadot.gov/tiger13-freight).

### d. Results of Benefit-Cost Analysis

HDR Decision Economics was contracted by the Iowa DOT to conduct a rigorous analysis of the expected cost, benefits and the assumptions that went into the benefit cost calculations.

Many of the individual benefits summarized below (from the Cost Benefit analysis) have been discussed in the respective selection criteria.

A very modest investment of \$15,957,644 in TIGER funding, coupled with \$8,655,513 in private investment are expected to yield over \$1.8 billion (discounted) in benefits over the 22-year lifecycle.

**TABLE 14 - SUMMARY OF MONETIZED BENEFITS, IN MILLION OF 2012\$**

<u>Long-Term Outcomes</u>	<u>Benefit Categories</u>	<u>7% Discount Rate</u>	<u>3% Discount Rate</u>
State of Good Repair	Avoided Pavement Maintenance Costs	<b>\$351.65</b>	\$553.33
Economic Competitiveness	Shipper Savings due to Modal Switch from Truck to Rail	<b>\$702.80</b>	\$1,102.98
Livability	Reduced Road Congestion due to Modal Switch from Truck to Rail	<b>\$199.74</b>	\$314.30
Environmental Sustainability	Emission Cost Savings due to Modal Switch from Truck to Rail	<b>\$162.50</b>	\$168.06
Safety	Accident Cost Savings due to Modal Switch from Truck to Rail	<b>\$392.90</b>	\$618.25
<b>Total Benefit Estimates</b>		<b>\$1,809.59</b>	<b>\$2,756.93</b>

*Note: \* Excluding the short-term employment impacts of the project\_*

A positive benefit cost ratio is a prerequisite for consideration for an award. The project proposed in this application will see benefits exceeding 8 times the cost – a cost benefit ratio of 8.18.

The tables below summarize the overall BCA findings. Annual costs and benefits are computed over the lifecycle of the project (2013-2035). As stated earlier, construction is expected to be completed by the end of 2015. Benefits accrue during the full operation of the project and begin in 2014.

**TABLE 15 - OVERALL RESULTS OF THE BENEFIT COST ANALYSIS, MILLIONS OF 2012\$\***

Project Evaluation Metric	7% Discount Rate	3% Discount Rate
Total Discounted Benefits	<b>\$1,809.59</b>	\$2,756.93
Total Discounted Costs	<b>\$221.33</b>	\$331.66
Net Present Value	<b>\$1,588.26</b>	\$2,425.27
Benefit / Cost Ratio	<b>8.18</b>	8.31
Payback Period (years)	<b>1.24</b>	

*\* Unless Specified Otherwise*

## V. PLANNING APPROVALS, NEPA AND OTHER ENVIRONMENTAL REVIEWS/APPROVALS

The proposed project is consistent with the existing Light Industrial zoning.

There are no bridges or waterways involved in the construction that will require state or local permitting.

There are no state legislative barriers to timely completion and the project is broadly supported on a regional, state and local level.

Iowa DOT consulted with an FRA environmental specialist, who advised the Iowa DOT to complete an initial environmental review and submit a completed FRA Categorical Exclusion (CE) Worksheet with the application. Without a federal action (i.e. grant award), the FRA was unwilling to take further action toward completing the CE. The Iowa DOT's Office of Location & Environment and Office of Rail Transportation have previously worked with the FRA on other projects that require a CE and are fully familiar with FRA's NEPA requirements.

As recommend by FRA, the Iowa DOT conducted a desktop NEPA review of the project and is confident that the project will not have significant impact on the environment, either individually or cumulatively. The completed CE Worksheet is included as Appendix F. Of the 16 classes of action listed in the CE Worksheet, the Iowa DOT considered the applicability of three classes to the proposed project. However, it is unclear whether the proposed project fully meets the requirements of any of these three classes. The three classes are 1) Financial assistance for the construction of minor loading and unloading facilities, provided that proposals are consistent with local zoning, do not involve the acquisition of a significant amount of land, and do not significantly alter the traffic density characteristics of existing rail or highway facilities; 2) Minor rail line additions including construction of side tracks, passing tracks, crossovers, short connections between existing rail lines, and new tracks within existing rail yards, provided that such additions are consistent with existing zoning, do not involve acquisition of a significant amount of right of way, and do not substantially alter the traffic density characteristics of existing rail lines or rail facilities; and 3) Assembly or construction of facilities or stations that are consistent with existing land use and zoning requirements, do not result in a major change in traffic density on existing rail or highway facilities and result in approximately less than ten acres of surface disturbance.

If the proposed project does not meet the requirements of these three classes of action, the project would qualify for categorical exclusion under Section 4(e) of FRA's May 26, 1999, *Procedures for Considering Environmental Impacts*. Specifically, the proposed project will satisfy the seven criteria for exclusion of actions not excluded under subsection (c) and (d).

IANR will work closely with the Iowa DOT's Office of Location & Environment, which is responsible for NEPA compliance, to complete the requirements to obtain an approved CE, including obtaining a Clean Water Act Section 402 permit from the Iowa Department of Natural Resources, completion of a General Noise and Vibration Assessment, submission of a completed Farmland Conversion Impact Rating form to the Natural Resources Conservation Service, consultation with the State Historic Preservation Office on results of the Phase I archaeological survey planned for Summer 2013, and notification to the Tribes. Completion of these remaining tasks is not expected to cause significant delay to the IANR project schedule.

## **VI. FEDERAL WAGE RATE CERTIFICATION**

The applicant will comply 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 certification to that effect is included in Appendix I and may be found at [www.iowadot.gov/tiger13-freight](http://www.iowadot.gov/tiger13-freight).

## SUMMARY

In addition to the creation and preservation of jobs and other related direct benefits, this UMTH infrastructure project meets and surpasses the additional benefits which are outlined in the US DOT's TIGER application rules:

- (1) Improved condition of existing transportation facilities and systems? [Yes.](#)
- (2) Long-term growth in employment, production or other high-value economic activity? [Yes.](#)
- (3) Improved livability of communities in the region served by IANR? [Yes.](#)
- (4) Improved energy efficiency, reduced dependence on oil and reduced greenhouse gas emissions? [Yes.](#)
- (5) Reduced adverse impacts of transportation on the natural environment? [Yes.](#)
- (6) Greater use of innovative technology and innovative approaches to transportation funding and project delivery? [Yes.](#)
- (7) Greater collaboration with State and local governments, other public entities, private entities, nonprofit entities, or other non-traditional partners? [Yes.](#)