FREIGHT TRANSPORTATION STUDY

Indianapolis Metropolitan Planning Area

Multimodal Freight Mobility

Planning Research Studies

Task 2 – White Paper

ASSESSMENT OF INTERMODAL TRANSFER AREAS

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The Indianapolis Metropolitan Planning Organization

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Task 2: Assessment of Intermodal Transfer Stations

Introduction

Rail freight service is currently provided by six railroads in the eight-county Indianapolis Metropolitan Planning Organization (MPO) urban area. Intermodal freight transfer areas are located along these freight rail lines. This report identifies the intermodal facilities and their locations, describes their use and deficiencies, and presents an improvement strategy for them.

Facilities and Locations

For the purpose of this white paper, intermodal facilities in the study area include those public and private sector facilities that provide for the transfer of freight between truck and rail. This activity encompasses exchange of freight equipment such as containers and trailers when the freight itself is not disturbed; the transfer of bulk materials, liquid and dry, by various means such as conveyers, hoses or piping; and includes products such as lumber, steel and paper, that may be transferred piecemeal using forklifts, cranes, etc., or as expressed in marine terms, break-bulk. Some shipments are stored before modal transfer and final delivery is made.

Sixteen rail intermodal facilities and one container intermodal facility have been identified in the study area. All of the intermodal locations identified their primary business as the transfer or transloading of product from either rail to truck or from truck to rail. The intermodal locations have been categorized into four groups:

Bulk Facilities – a facility where dry and liquid products can be transferred from covered hopper cars or tank cars. Products frequently transloaded at bulk facilities include plastic pellets, flour, minerals, cement, acids and ethanol.

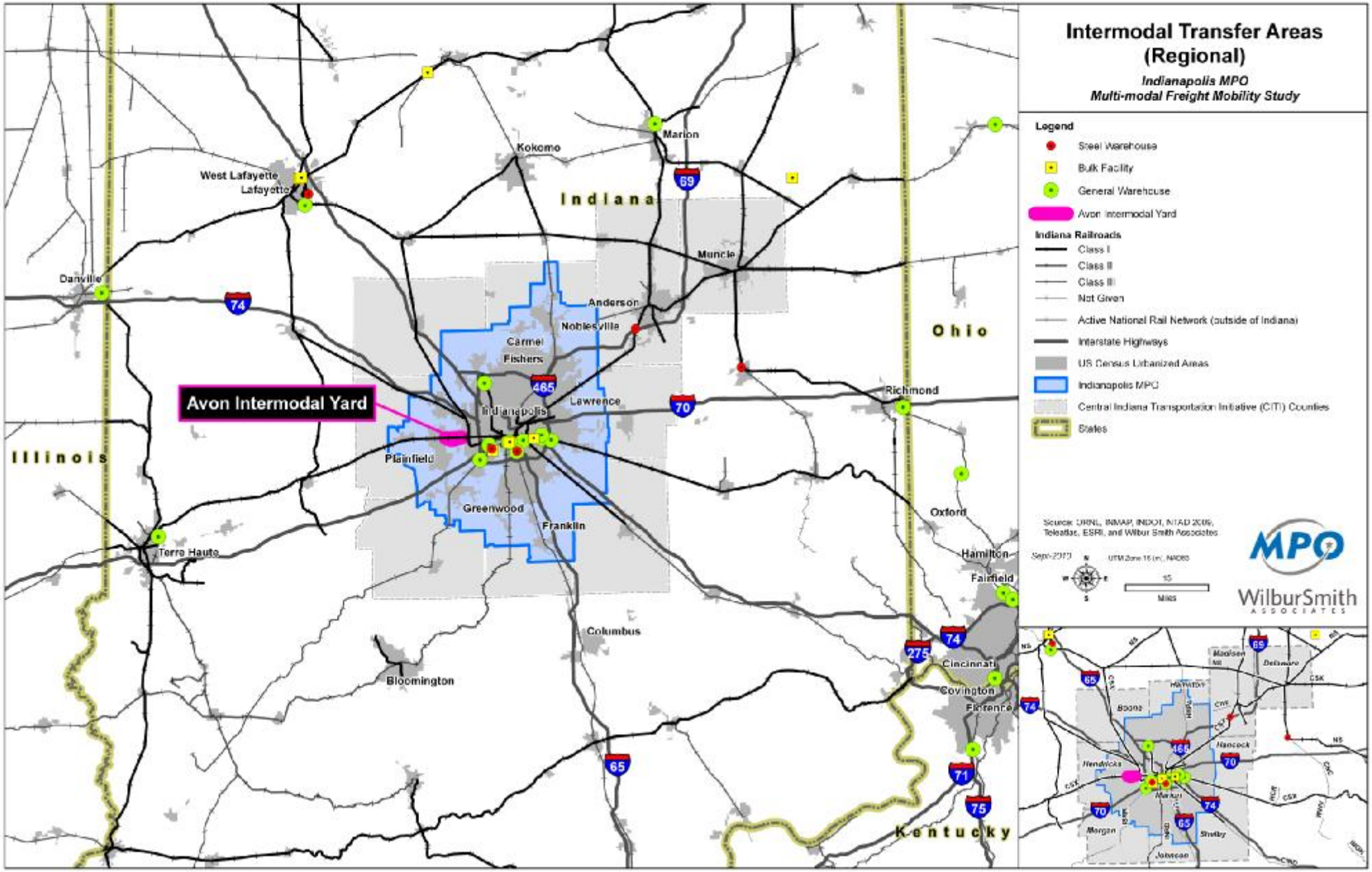
General Warehouse Facilities – a building with rail load/unload capability. Most warehouses specialize in products shipped in boxcars, and will specialize in a particular type of commodity. Some specialty features include refrigeration or freezer space, and food grade certified. Products handled would be fresh or frozen food, canned goods, beverages, lumber, paper and other building materials.

Steel Facilities – a facility that is designed and engineered to handle coil or plate steel. These facilities are generally climate controlled and have cranes capable of lifting the heavy loads.

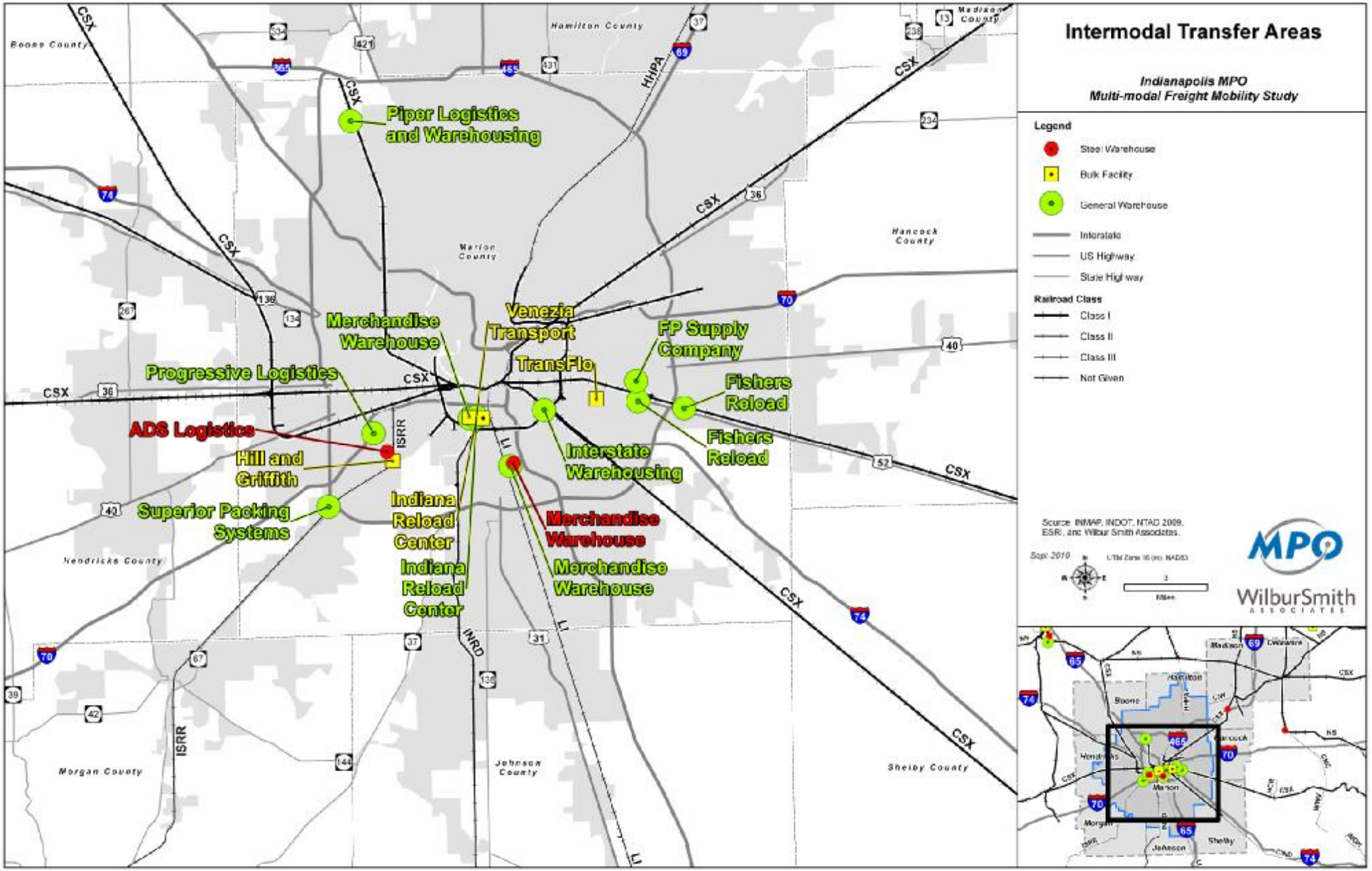
Container Intermodal Facilities – a facility that transfers intermodal containers to/from railroad flat cars. The container will be transported intact from the shipper to the receiver and can travel via truck, railroad, steamship vessel, and in some cases barge. The Avon Intermodal Yard on the CSXT is the only container intermodal facility within the study area.

Due to the specialization of these facilities, and the critical mass needed to support these facilities, there is substantial competition between them.

Figure 1: Intermodal Transfer Areas (Regional & Statewide)



igure 2: Intermodal Transfer Areas



Facility Characteristics

Bulk Facilities

There are currently four bulk facilities operating within the study area. Bulk transfer of a product from a railcar to a truck or vice versa is simplest and requires the lowest amount of space. Due to the ease and limited space requirement, this form of transloading can occur on about any truck accessible siding on a railroad, or in the case of a short line, directly on the mainline. This being the case, every truck accessible siding can be considered an intermodal transfer location. For this paper, only established yard or facilities were considered.

Table 1 outlines the facilities and the characteristics of each. Characteristics that are categorized are:

Carrier – The reporting marks of the serving railroad

Spots – Number of railcar loading or unloading spots, or maximum number of cars they can handle at one time

Dry – Dry Bulk (Flour, Sugar, Grain Products, Cement, Soda Ash, Plastic resins)

Liquid – Liquid Bulk (Liquid Calcium Chloride, Ethanol, Oils)

Hazardous – Can the facility handle hazardous commodities – These commodities include petroleum products. To handle hazardous products a transload facility must have catch pans or a containment area under the railcar in case of a spill.

Heat – Is there a readily available heat source like hot water or steam to hook up to the railcar to keep the liquid product inside of the railcar warm. This is required when transloading some oils and greases. This ensures that the warm product can flow from the railcar into the tanker truck as when it is cooled it becomes more of a solid. Railroad tank cars are insulated and have built-in coils between the inner lining and outer shell to run steam or hot water through to warm the car.

TransFlow, a subsidiary of CSX Corporation, operates a bulk transfer facility on the CSXT. It is located at the CSXT Hawthorne Yard and is accessed from Emerson Avenue. The facility has 45 car spots. This facility offers customers a complete transloading package. TransFlow will transfer the product as well as arrange for all trucking.

Indiana Rail Road owns Senate Avenue Terminal in Indianapolis and is the location of the Indiana Reload Center. The facility is capable of handling a variety of materials and also provides warehousing and storage. It has up to 50 car spots, over 25 acres of outside storage and five building with over 700,000 cubic feet of space. Access is via South Senate Avenue just off I-70. Unlike the TransFlow facility, this facility only offers a location for the transfer; the shipper or receiver is responsible for providing any equipment necessary for the transfer.

Venezia Transport is the company that receives rail service from the Indiana Railroad, and has a small transfer operation within the Indiana Railroads Senate Avenue yard. At this location they offload railcars into pneumatic tank trucks for delivery.

The only heated liquid transfer facility within the study area is Hill and Griffith – They specialize in liquid transfer from railcars to truck or vice versa. Hill and Griffith also repackage the liquid from bulk as

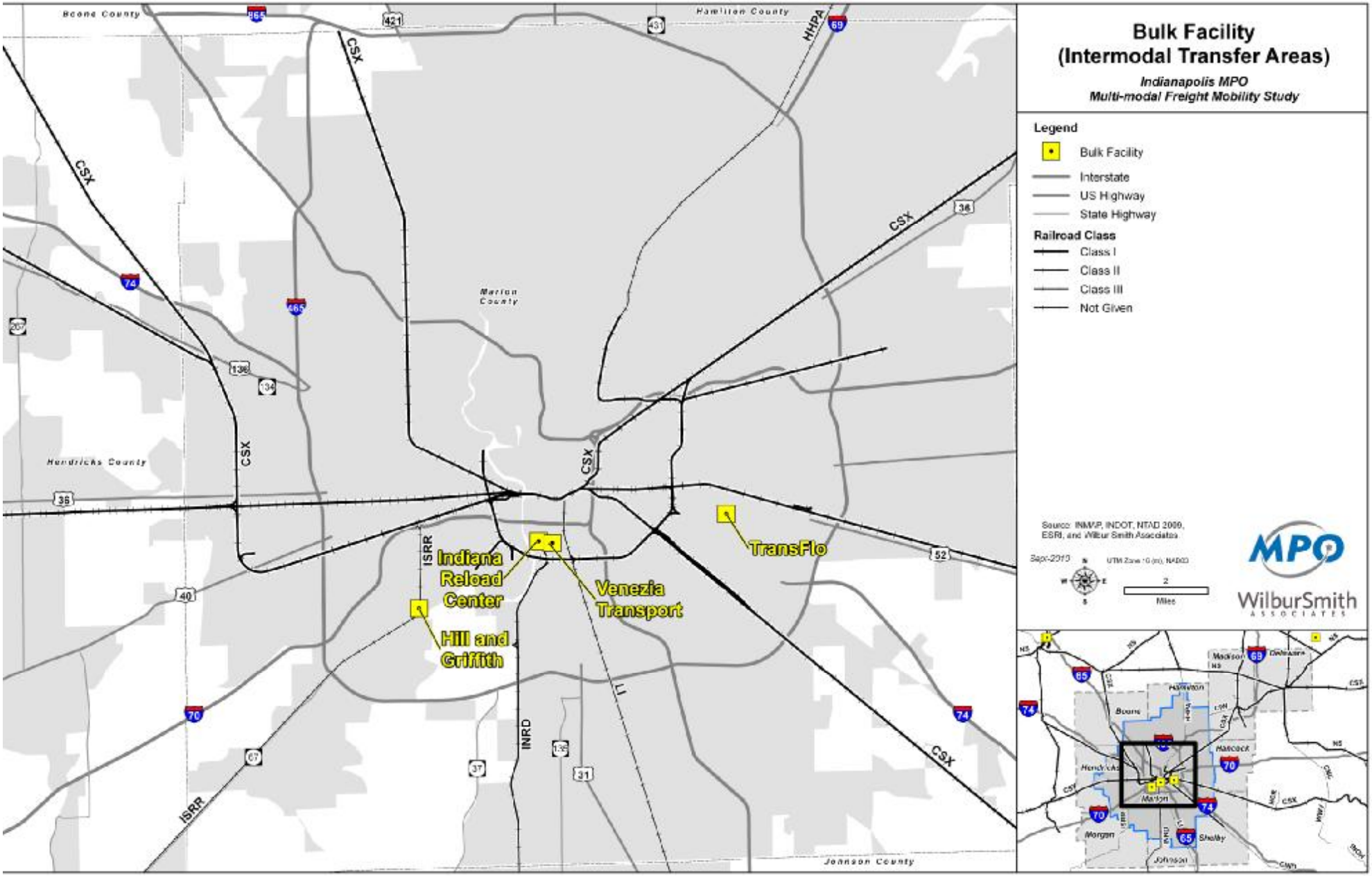
it is received in a railroad tank car, to drums or mini-tanks. The Indianapolis location is able to handle 1.5 million pounds of product daily.

Within 150 miles of the study area, 23 additional bulk transfer facilities have been identified. The majority of these facilities are on the Norfolk Southern Railroad, with six of them being a "NS Thoroughbred Bulk Transfer Terminal." A NS Thoroughbred Bulk Facility is a Norfolk Southern Railroad owned operation that is generally located within a yard and is capable of accommodating anywhere from 30 to 130 cars at a time.

Table 1: Bulk Transfer Facilities

Operator	Address	City	ZIP	Spots	Carrier	Dry	Liquid	HAZ	Heat
TransFlo	855 South Emerson Ave.	Indianapolis	46203	27	CSX	X	X	X	
Indiana Reload Center	1500 S. Senate Ave	Indianapolis	46225	100	INRD	X	X		
Venezia Transport	Senate Ave	Indianapolis	46201	8	INRD	X	X		
Hill and Griffith	3637 Farnsworth Ave.	Indianapolis	46241	7	CSX		X		X

igure 3: Bulk Facility (Intermodal Transfer Areas)



General Warehouse

Within the study area there are ten general warehouses. Of these ten facilities, two are classified as food grade. The majority of the operators provide not only warehousing, but additional third party logistic services to manufacturers, wholesalers, distributors and retailers of food products. Some of the services provided may include labeling, picking and packing, packaging and bar coding. Within a 150 mile radius of the study area there are an additional 55 rail-served general warehouses. Just like with the bulk facilities, there is strong competition between competing warehouses.

Two of the warehouses also offer cold or refrigerated storage space. Items they handle may include, but are not limited to, fresh fruits, vegetables, meats or dairy products, or frozen food items. Interstate Warehouse's facility is one-hundred percent refrigerated, while the other facility that offers this service, Merchandise Warehouse Co., offers refrigerated space as well as general dry space.

Table 2 outlines the facilities and the characteristics of each. Characteristics that are categorized are:

Carrier – The reporting marks of the serving railroad

Spots – Number of railcar loading or unloading spots, or maximum number of cars they can handle at one time

Food – Can this location handle food or food grade products as outlined by the USDA

Dry – The maximum amount, in square feet, of general warehouse space

Refrigerated – The maximum amount, in square feet, of refrigerated warehouse space

Warehouses along with general storage services also offer customers the opportunity to forward inventory of the product and for either the consolidation or deconsolidation of freight. This will allow companies that cannot either ship or receive in full carload quantities to/from a customer the opportunity to ship rail. A good example of this is the lumber industry. A mill may ship panel to a warehouse by boxcar or centerbeam railcar, where it is stored and shipped, on demand, to a local retail customer. This also allows the mills the opportunity to ship and store many different products to the same warehouse, limiting the number of truck deliveries to the local lumber yard as well as being able to supply their customer's product on demand with very little lead time. This type of operation works with all commodities and not just with lumber.

Of all the warehouses and transfer facilities in the study area, only one of the locations handles strictly lumber, Fishers Reload on Kitley, and is currently only taking in limited volumes.

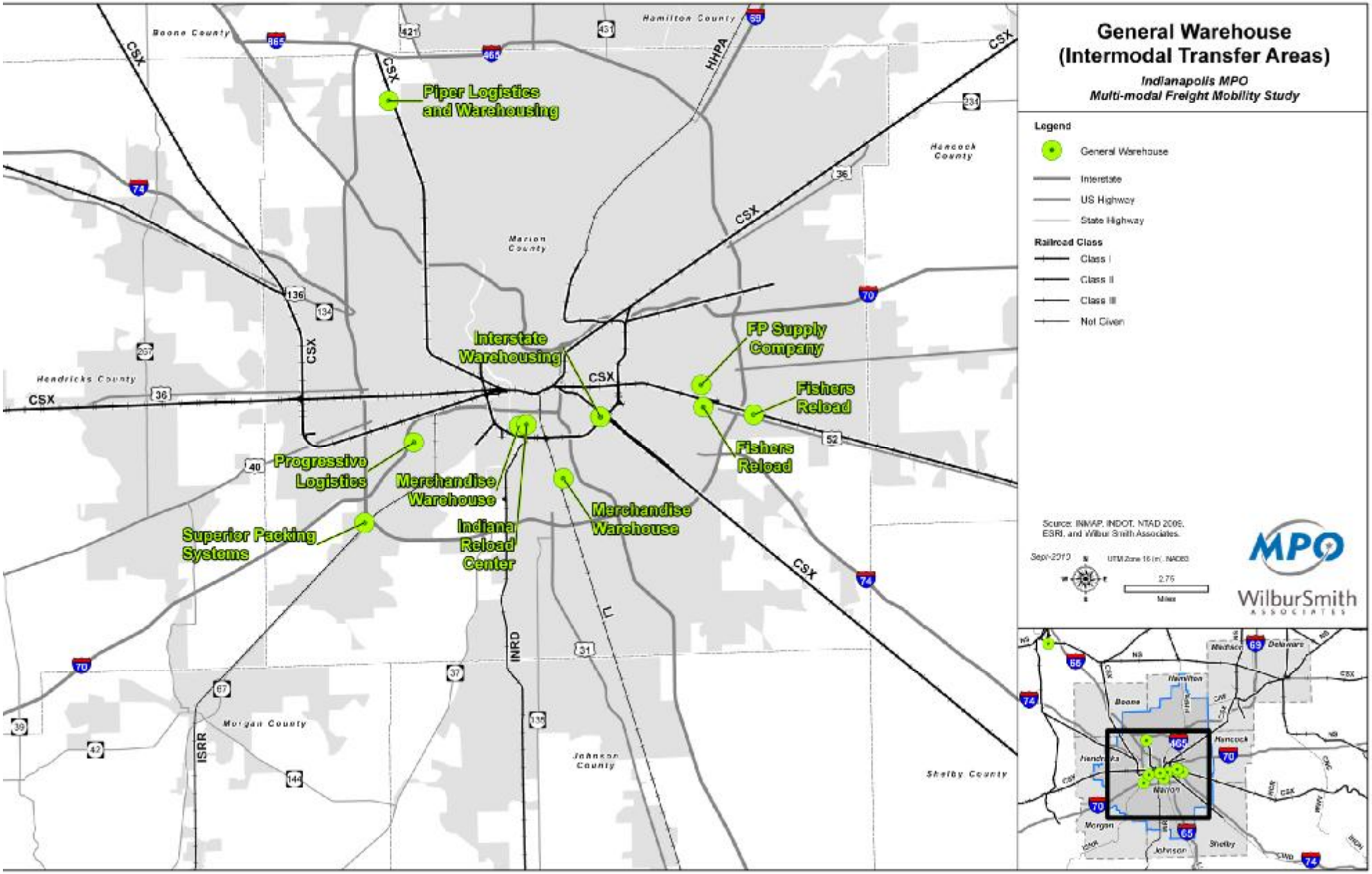
Indiana Reload Center, up until late 2009, handled lumber and steel transloading at their Senate Avenue facility. Due to the slowdown in both of these market segments, they are currently not actively transloading product at this location. They are, however, allowing other third party companies access to this location to transload various products, both inbound and outbound.

Ten different facilities are currently operating within the study area, with two operators having two different locations (Fishers Reload and Merchandise Warehouse Co., Inc.).

Table 2: General Warehouse Facilities

Operator	Address	City	ZIP	Spots	Carrier	Food	Dry	Refrigerated
Fishers Reload	980 S. Kitley	Indianapolis	46219	5	CSXT	N	Lumber	0
Fishers Reload	1477 S. Franklin Road	Indianapolis	46239	9	CSXT	N	75000	0
FP Supply Company	310 S. Kitley Ave	Indianapolis	46219	2	CSXT	N	95000	0
Indiana Reload Center	1500 S. Senate Ave	Indianapolis	46225	100	INRD	N	700000	0
Interstate Warehousing Inc	1301 S Keystone Ave	Indianapolis	46203	3	CSXT	Y	0	300000
Merchandise Warehouse Co.	1414 S. West Street	Indianapolis	46225	1	INRD	Y	900000	200000
Merchandise Warehouse Co.	3000 Shelby St.	Indianapolis	46227	8	CSXT	N	50000	0
Piper Logistics and Warehousing	8175 Allison Ave	Indianapolis	46268	8	CSXT	N	300000	0
Progressive Logistics	1908 Stout Field W Dr	Indianapolis	46219	20	CSXT	N	126000	0
Superior Packing Systems LLC	4750 Kentucky Ave	Indianapolis	46221	6	ISRR	N	130000	0

igure 4: General Warehouse (Intermodal Transfer Areas)



Steel Warehouse

Steel Warehouse intermodal facilities are highly specialized facilities that transload steel products. Due to the specialization of their services, it is generally the only commodity handled at that particular location.

Class 1 warehouses are climate controlled (humidity and temperature). Steel is generally housed in a Climate Controlled Warehouse and all steel coils and sheets are stored at approximately 65°F year-round. Controlling the temperature eliminates the "sweating" that can occur in environments where the steel is allowed to cool and heat up very quickly causing moisture to form between laps of the coils and eventually causing white rust. By keeping the steel at "room temperature" all of the time it ensures that the product integrity remains intact.

Class 2 facilities are not climate controlled. These locations are generally unheated warehouses. This helps to ensure the steel does not either heat up or cool down too quickly as it is being loaded or unloaded from railcars, as the temperature inside the warehouse is near that of the outdoors.

One of the other key features of the Steel Warehouses is the heavy lifting capability, with most of them having ceiling mounted crane units inside their facilities. This allows them the ability to move the material off of or onto a railcar as well as around their facility.

Within the study area, there are only two steel intermodal transfer facilities. Both of which are located on the CSXT.

Table 3 outlines the facilities and the characteristics of each. Characteristics that are categorized are:

Carrier – The reporting marks of the serving railroad

Spots – Number of railcar loading or unloading spots, or maximum number of cars they can handle at one time

Inside – Maximum amount of storage space, in square feet

Cranes – Number of cranes on site

Lifts (tons) – Maximum lift capacity, in tons, of the largest crane on site

Coil – Can the facility load/unload plate steel - this is generally done with a "J" hook that can be attached to a crane

Plate – Can the facility load/unload plate steel - this is generally done with overhead cranes equipped with spreader bars

Tin Plate – Can the facility load/unload tin plate - this is generally shipped on pallets inside a boxcar. One coil per pallet can weight upward of 25,000 pounds

ADS Logistics Indianapolis facility provides storage, packaging and inspection, pallet transfer, transloading, and just-in-time inventory of steel products. ADS Logistics has four other warehouses within their warehouse network, with their facility in Portage, IN being in the closest proximity to the study area. Other facilities are located in Shreveport, LA, O'Fallon, MO and Pickering, ON.

Merchandise Warehouse – The Company has two site locations within the study area, with one of them being dedicated to steel and heavy industrial products.

Merchandise Warehouse is a family owned business that has been serving local, regional, and national customer for over 50 years. Their warehousing services are available on public, contract and leased arrangements. Within 150 miles of the study area, 18 additional steel warehouse operations were identified.

Table 3: Steel Warehouse Facilities

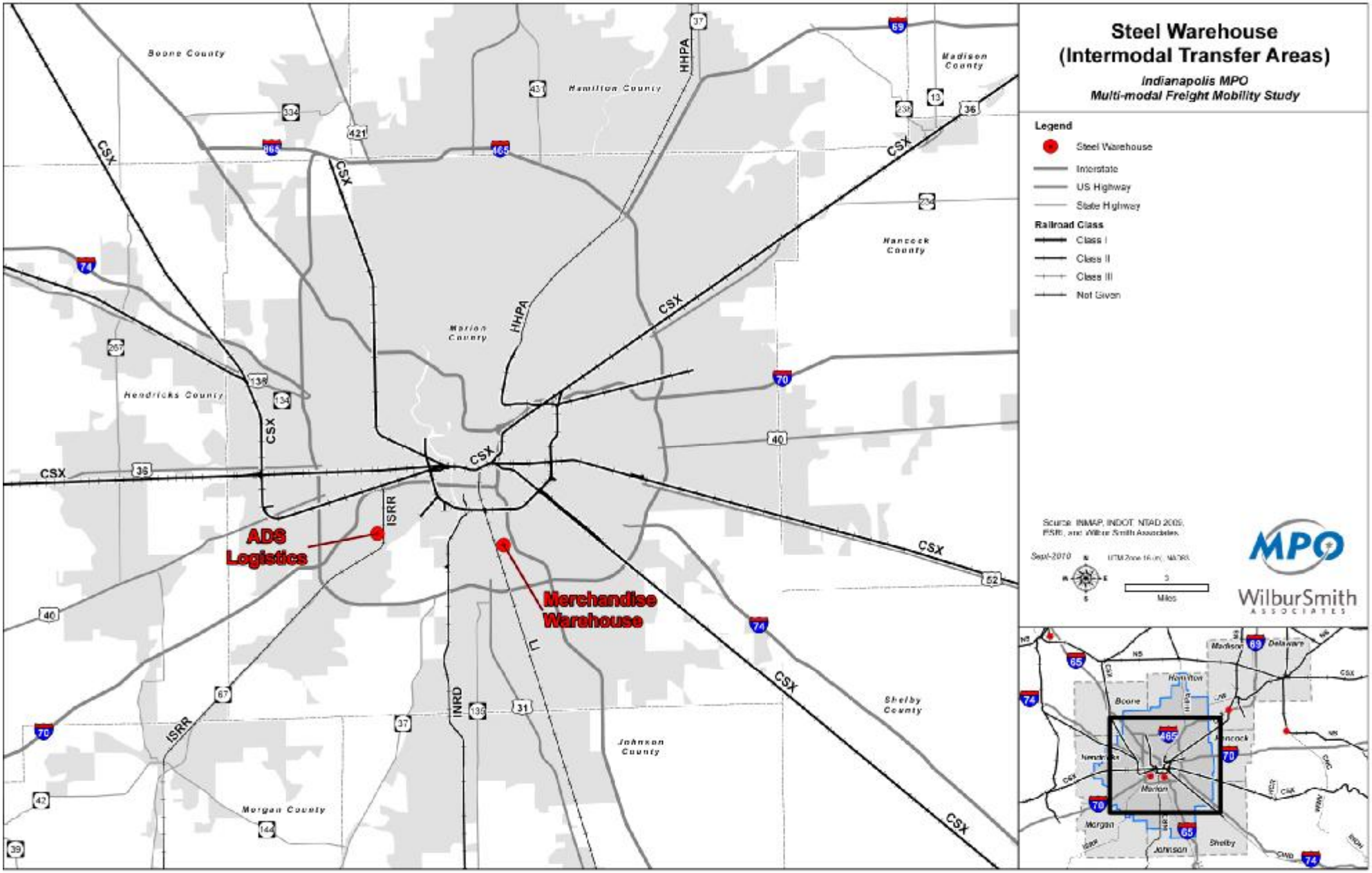
Operator	Address	City	ZIP	Spots	Carrier	Inside	Class	Cranes	Lift (tons)	Coil	Plate	Tin Plate
ADS Logistics	2515 Holt Road	Indianapolis	46241	26	CSXT	173000	1	4	28	Y	Y	Y
Merchandise Warehouse	3000 Shelby St.	Indianapolis	46227	8	CSXT	168000	2	2	25	Y	Y	Y

Container Intermodal

CSX Intermodal (CSXI) is a subsidiary of CSX Corporation and operates CSX Intermodal Indianapolis facility which is located on 25 acres adjacent to the southwest corner of Avon Yard. Road access is via Dan Jones Road. The facility has two 1,250-foot working tracks and one 800-foot storage/overflow track. The facility handled approximately 36,000 lifts in 2008. Currently, service in terms of routes and number of trains is limited.

CSXI has contracted the daily operations of the Avon Intermodal Terminal to Parsec, Inc., which is a professional services company specializing in rail intermodal terminal operations. Parsec, Inc. currently manages rail terminal operations at over 30 locations in the United States and Canada.

igure 5: Steel Warehouse (Intermodal Transfer Areas)



Deficiencies and Alternative Strategies

Competitive Factors – Non-Container

Intermodal transfer facility operations are highly competitive within particular geographic regions. The competitive geographic region for most facilities is between 50 and 150 miles depending on the commodity and specialization. Including the Chicago metropolitan area there are a number of facilities within this range that would be considered a competitive facility.

Chicago

Chicago can be considered a competitive region of its own. There are several factors that contribute to this competitiveness. One of the key factors is six Class I railroads converge in Chicago, the Union Pacific, Burlington Northern Santa Fe Railway, Norfolk Southern, Canadian National, Canadian Pacific, and the CSXT. Product destined for or originating in Indianapolis to or from the west or from Canada could transload in the Chicago area. This is a cost competitive option due to the short length of haul between Chicago and Indianapolis. Rail costing is based on length of haul, with most of the cost associated with switching of the car to be loaded or unloaded. With the higher proportionate cost and rates associated with moving a railcar between Chicago and Indianapolis, a joint line rail movement becomes less competitive to a truck option from or to Chicago.

This may not be as big of an issue in the future as the eastern rail carriers and the western carriers are forming joint line service in higher volume lanes. Joint line service allows for the train to move from origin station to destination station as one unit and not have to be reclassified upon interchange. For example, Union Pacific and Norfolk Southern offer joint boxcar service between Northern California and the Northeast. The train continues, undisrupted through Chicago. This allows for quicker transit through the corridor, thus making it very truck competitive. If there were sufficient volumes originating or terminating in the study area on a carrier other than CSXT, it would be advantageous to approach the CSXT about a joint line move, which would make it more competitive and reduce the Chicago factor.

Another factor contributing to the Chicago competitive option is economies of scale. Higher volumes in particular lanes as well as railcar movements in/out of facilities have a direct correlation to lower rate levels. Lower rates into high traffic regions, like Chicago, make these facilities very competitive. Discussions with several of the operators confirmed the Chicago competitiveness.

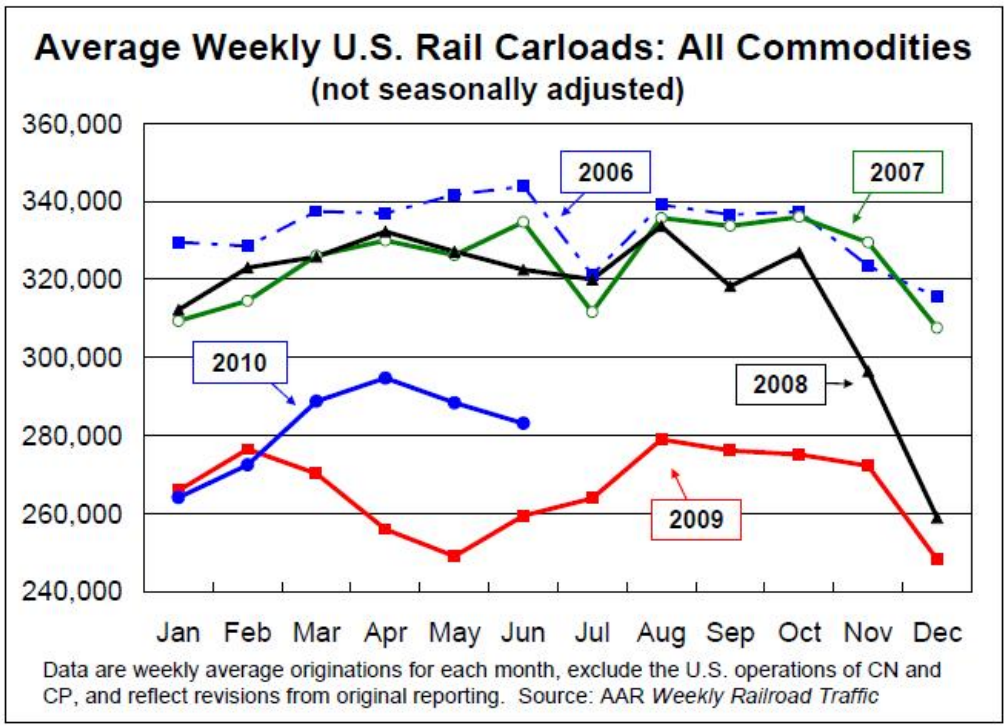
Drop in Volume

Freight railroading is a “derived demand” industry. Demand for rail services occurs as a result of demand elsewhere in the economy for products that railroads haul. Thus, rail traffic is a useful gauge of broad national and international activity.

Through most of 2008, rail traffic along with the economy was moving along at a pace right under or near 2007 traffic levels. This was until the housing market imploded in late September 2008. With the bubble bursting, housing starts plummeted, as did the shipments of construction goods related to housing (lumber and panel products). As shown on the graph below (

Figure 6) U.S. rail carloads dropped significantly in October 2008 and maintained low traffic levels throughout 2009. Though shipments in 2010 are above 2009 levels, they are still under historic levels.

Figure 6: Average U.S. Rail Carloads



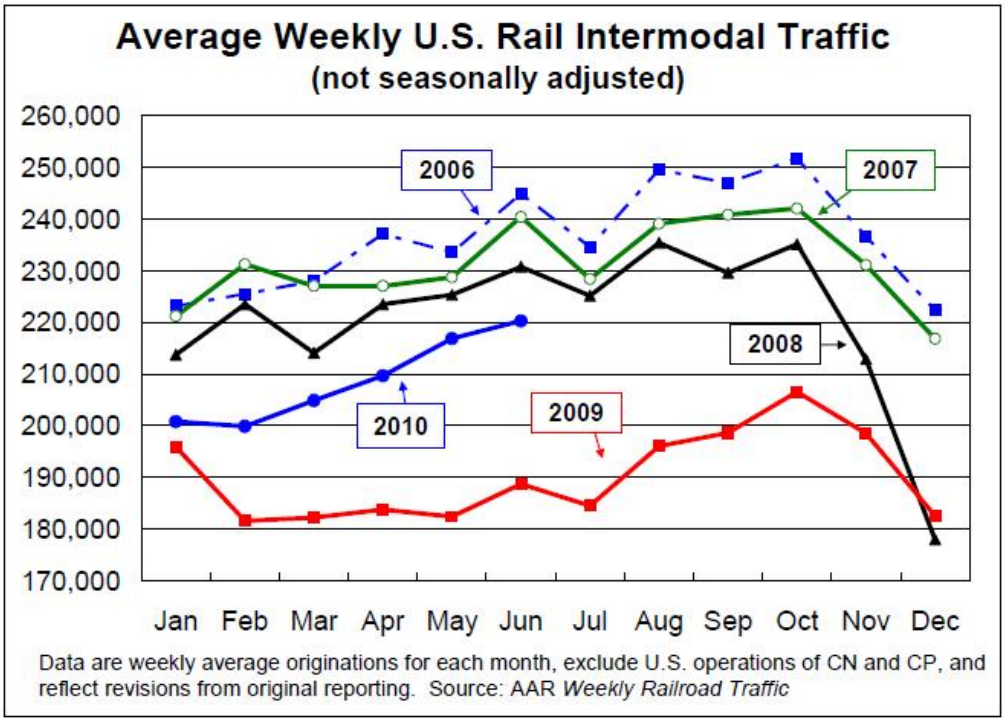
Competitive Factors – Container

Competitive container facilities are those that are located within a 200 mile radius of Indianapolis. Based on findings from the Conexus Indiana study, there are a number of intermodal container facilities within this competitive area. These include:

- Decatur, IL (NS)
- Evansville, IN (CSXT)
- Louisville, KY (NS)
- Georgetown, KY (NS)
- Cincinnati, OH (Three facilities, 1 CSXT, 2 NS)
- Columbus, OH (CSXT and NS)
- Marion, OH (Schneider National Terminal (CSXT))
- Marysville, OH (CSXT)

Intermodal traffic experienced their best year on record in 2006, with 2007 ending as the second best year. October 2008 was when intermodal and the economy sustained a dramatic slowdown (**Figure 7**). Though the economy has recovered some and is above 2009 levels, it is still well below levels once achieved in 2006 and 2007.

Figure 7: Average Weekly U.S. Rail Intermodal Traffic



Though intermodal traffic is down, railroads view this as a key growth market and continue to invest in additional facilities and service offerings.

Northwest Ohio

CSXI has been working for the past couple of years on the implementation of the National Gateway. To make this a viable double stack intermodal corridor, numerous tunnels along the route had to be heightened to allow for the clearance of the double stack container trains. Work along this route is almost complete and is expected to open in September 2010 with the anchor for the network in Northwest Ohio near North Baltimore, OH.

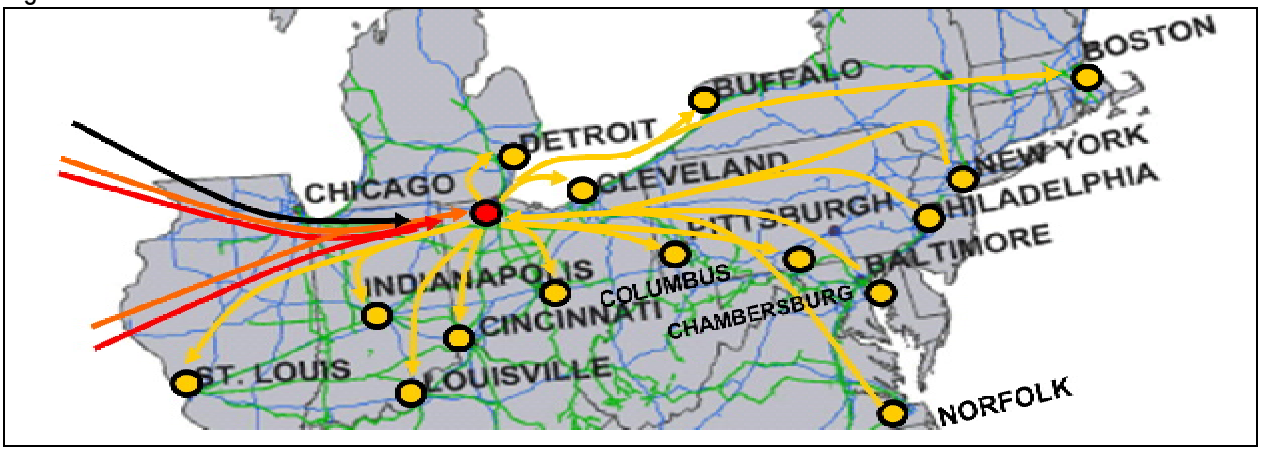
igure 8: National Gateway Map

Source: CSXT

A new terminal is being built on the CSXT network in Northwest Ohio. This intermodal terminal will raise the bar for all intermodal networks and will significantly improve service levels for intermodal customers in the Eastern United States. The facility will allow intermodal trains to bypass Chicago, and the congestion in and around Chicago, and move through for processing to final destination without delay. By having the ability to locate at a single, cost-effective location with access to every major market in the country, new service offerings will be available due to "hub density" and this strategy will significantly improve routing efficiency. The Northwest Ohio capabilities will enable CSX Intermodal Terminals, Inc. to increase terminal throughput, add service lines, connect to more markets and provide superior service overall.

Until the facility is open, and additional service levels are implemented, the impact on the study area cannot be determined. CSXT is expanding service to Cincinnati, Ohio and may or may not expand service from the Northwest Ohio terminal into the Avon Terminal in Indianapolis.

Figure 9: Intermodal Service Northwest Ohio



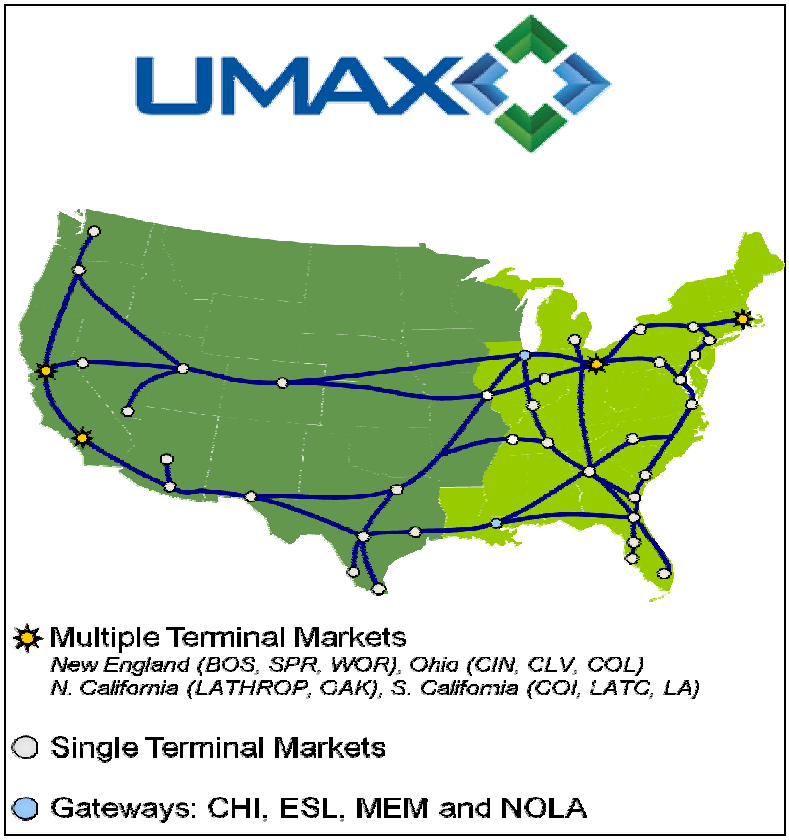
Source: CSXT Presentation John Koch AVP Sales & Marketing, July 8, 2010

Figure 9 – The yellow arrows represent the new service lanes and the Black, Red, and Orange arrows represent the inbound freight from West Coast carriers that would by-pass Chicago.

UMAX

UMAX is a new domestic interline container program jointly marketed by CSXT Intermodal and Union Pacific Railroad. The new service offers truck competitive options in key lanes on both the Union Pacific and CSXT networks. The UMAX program currently has 20,000, 53-foot rail provided containers, which allow for a broader spectrum of customers: freight brokers, intermodal marketing companies, parcel and truckload.

Figure 10: UMAX U.S. Rail Terminals



Source: CSX

The majority of the intermodal equipment is privately owned and not available for public use. JB Hunt, Swift, and Schneider National are the major players in this market, and for use of their equipment loads must be booked through them and only in lanes that they currently have contracted rates in.

The UMAX equipment can be moved in expanded service offering from the Union Pacific and CSXT, by virtually anyone. This will be a benefit to the MPO study area as one of the impediments for domestic intermodal in the region is that it is not in JB Hunts, Swifts, or Schneider Nationals service area for intermodal. Current service for the MPO study area for JB Hunt and Swift is trucked to or from Chicago. This service will have equipment readily available at the CSXI Avon facility, where it will load or unload from the train, and not be trucked to or from Chicago.

Summary

Within the study area, sixteen rail intermodal facilities and one container intermodal terminal facility have been identified. These are all companies that their primary business is the transferring of goods from rail to truck or vice versa. All of these facilities have seen declines in volumes, so much in some that they are currently not operating. As the economic conditions throughout the country continue to improve, so will the conditions and volumes being transloaded within the facilities in the MPO area.

Chicago currently has a competitive advantage over the MPO study area given the economies of scale that it has over the study area as well as convergence of all the major railroads. This advantage may be minimized if enough volume can be either originated or terminated within the study area to establish joint service with one of the other carriers. The joint service can either be for carload or intermodal service. With respect to container intermodal, new service offerings like UMAX may benefit the region, while it is unclear if the new facility in Northwest Ohio will be a benefit or an impediment.

Recommendation

The strategy of working with the western railroads (Union Pacific and the BNSF Railway) to develop a direct rail connection into the Indianapolis region for freight is crucial. This strategy as outlined in the 2007 study prepared for Central Indiana Corporate Partnership "A Rail Strategy for Indiana" is also the recommendation of this report, and is valid for both carload and intermodal traffic. By making a direct connection, freight that is currently offloaded and trucked from Chicago, Cincinnati, Louisville and Columbus to Indianapolis may be delivered direct.

To get the western carriers to see the value in establishing run through or direct service into the region, additional information will be needed. Freight volumes that would move in this service will need to be documented, as well as proposed service and rates. The service and pricing must be similar or better to current service offering to make this a viable option. In order to bring users together to discuss rates and service a Shippers Association needs to be created with antitrust immunity for its members.