

COLUMBIA TERMINAL RAILROAD (COLT)

Economic Impact Analysis



Exceed
Regional
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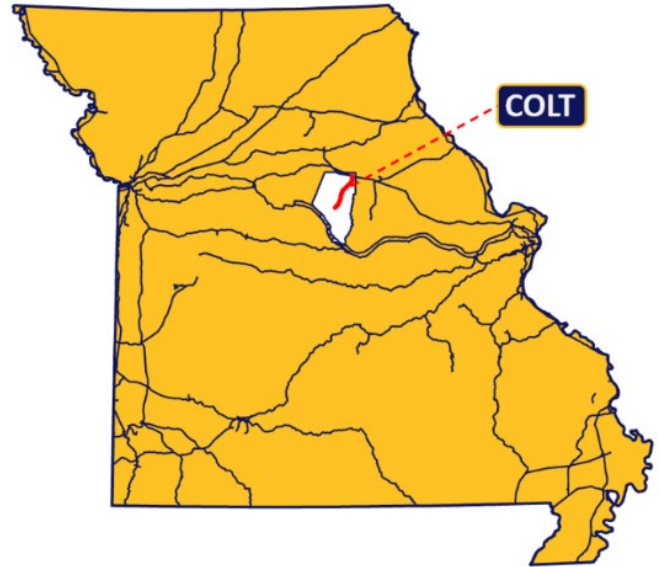
Extension
University of Missouri

Economic Impact of the Columbia Terminal Railroad (COLT)

Executive Summary

The primary purpose of this report is to understand the economic impact of the Columbia Terminal Railroad (COLT) by describing what business activity would be lost to Boone County, and possibly Missouri, without COLT operations. In addition, this report includes a timeline for the Columbia Branch Line, background of COLT and COLT Transload, and an analysis of the environmental and safety considerations regarding the hypothetical shift of current operations from rail to overland trucking in the absence of COLT.

Modeling the economic impact of all rail-served customers, traditional and non-traditional (transload clients), is beyond the scope of this project. However, this report analyzes the economic impact of two traditional rail-served industries forced to relocate without COLT service and discusses cost implications to other firms that lose transload capabilities.



Owned and operated by the City of Columbia since 1987, COLT serves as a crucial artery connecting businesses in Boone County with national railroad infrastructure. COLT has served traditional rail businesses along the Rt. B corridor for decades with several reliant upon it for core operations. Without access to COLT, two existing traditional rail businesses have indicated they would be forced to relocate outside of Boone County to a rail-served site.

These two businesses employ 85 individuals, on average, and reported combined annual sales of nearly \$110M in 2022 (see Methodology for more details). One company is planning to construct a new rail siding and building to increase capacity at their current facility. This new construction, slated to begin in late 2024, is estimated to cost \$50M over a five-year period.

The current economic activity of these two businesses, and the planned expansion, would halt in Boone County if COLT access were to cease. Over five years, the direct loss in company sales would result in an expected decrease of nearly \$670M in total sales to Boone County after accounting for supply-chain and worker spending. Additionally, the rest of Missouri would experience a loss of nearly \$88M in total sales for a combined decline of three quarters of a billion dollars over the span of five years. Further, a cease in COLT operations would result in a loss of 316 jobs, 243 of which are in Boone County, and a loss of nearly \$2.4M in tax revenue accrued to the City of Columbia and Boone County.

In addition to these lasting impacts, the construction activity of the planned expansion would not occur if COLT operations were to cease. This activity would support 116 jobs in Boone County, during the five-year investment period, along with nearly \$81M in total sales. The rest of Missouri would gain 11 jobs and \$11.7M in sales. While investment activities represent a temporary economic gain, the additional income and sales over five years would benefit local businesses and workers.

Beyond the two existing traditional rail businesses, non-traditional transload customers would also be negatively impacted by the loss of COLT operations. The value of the COLT Transload to the region is best represented by the increased costs to customers that incur changes or shifts in supply chain logistics from rail to other modes of transportation. Generally, the

cost of shipping heavy commodities through overland, long-haul trucking is four times greater than the cost of rail.¹ The increased cost for non-traditional businesses shifting existing commodities from rail to long-haul trucking in the absence of COLT Transload is not included in this report but would represent an additional burden to existing local companies and their customers.

Finally, this report also considered a hypothetical scenario² of possible future COLT use by a new fabricated structural metal manufacturing business employing 100 individuals. The impact of this hypothetical scenario was not included in the figures above to understand how the current activities contribute to the overall economic impact of COLT. Over the five-year period, this hypothetical future business would support 194 jobs and \$251.8M in sales in Boone County, and an additional 30 jobs and \$30.7M in sales throughout the rest of Missouri.



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Economic Impact Estimates

The expected losses in jobs, income, and other measures from the two rail-reliant businesses would primarily be felt in Boone County; however, the ripple effects would extend beyond these borders, impacting surrounding communities in Missouri. To illustrate these impacts, exhibit 1 highlights the expected economic impacts to Boone County and the rest of Missouri if COLT were to cease operations — resulting in the relocation of at least two existing businesses and cancellation of proposed construction activity. The tables also present totals for both areas.

¹ Estimate is based on data from the United States Department of Transportation, Bureau of Transportation Statistics; the Congressional Budget Office; and RSI Logistics.

² Hypothetical scenario figures are only shown in Exhibit 1 to avoid confusion with other data provided in this report.

Exhibit 1. 5-Year Economic Impact of Lost Businesses, Proposed New Construction, and Hypothetical New Business

Boone County



Loss of Two Businesses				
Impact	Jobs	Labor Income	GDP	Output
Direct	85	\$33,938,893	\$127,983,142	\$525,507,822
Intermediate	105.4	\$32,356,913	\$50,908,055	\$103,924,882
Induced	53	\$12,096,604	\$22,516,185	\$40,272,013
Totals	243.4	\$78,392,410	\$201,407,382	\$669,704,718
Loss of New Construction				
Impact	Jobs	Labor Income	GDP	Output
Direct	79.3	\$23,497,519	\$24,135,377	\$49,154,822
Intermediate	14.5	\$4,256,370	\$7,004,565	\$14,799,614
Induced	22.2	\$5,100,942	\$9,495,199	\$16,982,131
Totals	116	\$32,854,830	\$40,635,141	\$80,936,567
Hypothetical – Loss of New Rail-Dependent Business				
Impact	Jobs	Labor Income	GDP	Output
Direct	100	\$41,339,468	\$59,111,110	\$175,134,974
Intermediate	50.6	\$13,974,201	\$21,139,847	\$43,225,455
Induced	42.6	\$10,023,797	\$18,661,345	\$33,449,245
Totals	193.2	\$65,337,466	\$98,912,302	\$251,809,675

Rest of Missouri



Loss of Two Businesses				
Impact	Jobs	Labor Income	GDP	Output
Intermediate	37.6	\$15,058,644	\$27,464,833	\$58,489,558
Induced	35	\$9,377,639	\$16,614,649	\$29,478,513
Totals	72.5	\$24,436,282	\$44,079,482	\$87,968,070
Loss of New Construction				
Impact	Jobs	Labor Income	GDP	Output
Intermediate	4.55	\$1,759,755	\$3,147,503	\$6,264,568
Induced	6.36	\$1,723,419	\$3,053,424	\$5,417,560
Totals	10.9	\$3,483,174	\$6,200,926	\$11,682,128
Hypothetical – Loss of New Rail-Dependent Business				
Impact	Jobs	Labor Income	GDP	Output
Intermediate	13.4	\$5,034,786	\$7,916,938	\$16,861,399
Induced	15.9	\$4,400,641	\$7,794,699	\$13,847,090
Totals	29.3	\$9,435,428	\$15,711,637	\$30,708,489

Combined



Loss of Two Businesses				
Impact	Jobs	Labor Income	GDP	Output
Direct	85	\$33,938,893	\$127,983,142	\$525,507,822
Intermediate	143	\$47,415,557	\$78,372,888	\$162,414,440
Induced	88	\$21,474,242	\$39,130,834	\$69,750,526
Totals	315.9	\$102,828,693	\$245,486,864	\$757,672,788
Loss of New Construction				
Impact	Jobs	Labor Income	GDP	Output
Direct	79.3	\$23,497,519	\$24,135,377	\$49,154,822
Intermediate	19.1	\$6,016,125	\$10,152,068	\$21,064,182
Induced	28.5	\$6,824,361	\$12,548,623	\$22,399,691
Totals	126.9	\$36,338,004	\$46,836,067	\$92,618,695
Hypothetical – Loss of New Rail-Dependent Business				
Impact	Jobs	Labor Income	GDP	Output
Direct	100	\$41,339,468	\$59,111,110	\$175,134,974
Intermediate	64	\$19,008,987	\$29,056,785	\$60,086,854
Induced	58.4	\$14,424,438	\$26,456,044	\$47,296,335
Totals	222.5	\$74,772,894	\$114,623,939	\$282,518,164

Note: Figures would be negative but are shown without signs to ease readability. All money figures in 2023 dollars to adjust for inflation. Figures represent the total of five years of economic activity taking place over the 2025-2029 period.

Direct effects represent the annual operation of the two businesses and construction activities associated with the proposed facility expansion.

The direct activities of the two businesses currently support 85 jobs and would contribute \$33,938,893 in labor income in Boone County over the five-year period. Total five-year sales of \$525,507,822, in 2023 dollars, would generate \$127,983,142 in new local gross domestic product (GDP).

The direct activities involved in new construction would support an additional 79 jobs, generating \$23,497,519 in labor income and \$24,135,377 in new local gross domestic product over the five-year period.

The direct activities involved in the operation of a new fabricated structural metal manufacturer entering Boone County would support an additional 100 jobs, generating \$41,339,468 in labor income and \$175,134,974 in new local gross domestic product over the five-year period.

Indirect Effects estimate the impacts to supply chains needed to provide materials, equipment and services. Analysis shows supply-chain ripple effects would largely be felt in Boone County — with only 37.6 of the expected 143 total jobs indirectly supported by the current operation of the two businesses beyond its border.

The impact of new construction would also be mostly felt within Boone County — with only 4.6 of the expected 19.1 total jobs indirectly supported by the new construction project beyond its border.

The impact of a new manufacturer employing 100 individuals in Boone County would also be felt largely within Boone County — with only 13.4 of the expected 64 jobs indirectly supported by the new business beyond its border.

Missouri supply-chain jobs are found in hundreds of industries such as real estate, wholesale goods, transportation and other services. Exhibit 2 highlights the top industries for supply-chain jobs in Missouri for the two businesses and proposed new construction project.

Exhibit 2. Top 10 Intermediate Industries, by Job Supported

IMPLAN Industry	Jobs
Management of companies and enterprises	17.8
Truck transportation	11.3
Wholesale - Other nondurable goods merchant wholesalers	10.1
Employment services	6.9
Other real estate	5.5
Wholesale - Other durable goods merchant wholesalers	5.2
Business support services	4.3
Wholesale - Machinery, equipment, and supplies	4
Services to buildings	3.7
Investigation and security services	3.4

In Boone County, the top supply-chain jobs are in management of companies and enterprises; wholesale nondurable goods merchant wholesalers; truck transportation; and other real estate services (e.g., property financing, rental and leasing). Outside of Boone County, the top supply-chain jobs are in rail transportation; warehousing and storage; services to buildings; and paperboard container manufacturing.

Induced effects measure household spending from workers at the two businesses, their associated supply-chain firms, and the proposed construction project. A total of 88 Missouri jobs are supported by the current operation of the two businesses, 53 of which are in Boone County. An additional 28.5 jobs would be supported by the new construction

project, 22.2 of which would be in Boone County. Finally, an additional 58.4 jobs would be supported by the new manufacturer locating in Boone County, 42.6 of which would be in Boone County.

As with supply-chain industries, jobs supported by worker household spending are found in many industries. Exhibit 3 highlights the top employing industries supported by this additional household spending. Both within Boone County and beyond, the top induced jobs are expected in restaurants, offices of physicians, hospitals, retail, and other real estate and individual and family services.

Exhibit 3. Top 10 Missouri Household Spending (Induced) Industries, by Job Supported

IMPLAN Industry	Jobs
Limited-service restaurants	7
Full-service restaurants	6.9
Offices of physicians	4.2
Individual and family services	4.2
Retail - General merchandise stores	3.9
Other real estate	3.9
Hospitals	3.8
Retail - Food and beverage stores	3.6
All other food and drinking places	3
Religious organizations	2.6

Tax Impacts of Current Businesses and the Proposed New Construction

In addition to positive economic impacts associated with the current operation of the two businesses, county, city and state taxes benefit as well. Tax benefits include additional income, sales, property and other taxes collected by local and state governments. The IMPLAN model estimates taxes³ using U.S. Census Bureau and Bureau of Economic Analysis data.

Exhibit 4 shows the expected fiscal loss over five years if the two businesses close and the planned construction activity does not occur. This fiscal decline includes the direct and indirect supply-chain and worker spending impacts. Combined annual county and city tax losses of roughly \$2.4M are expected for communities in Boone County. Other local communities within Missouri would lose \$1.7M in tax revenues, and a loss of \$7.3M in state tax revenue would also be expected if the businesses move out of state.

Exhibit 4. Tax Losses over Five Years

Area	City/County Taxes	State Taxes
Boone County	\$2,378,000	\$5,795,155
Rest of Missouri	\$1,700,565	\$1,529,820
Total Missouri	\$4,078,565	\$7,324,980

Note: Figures in 2023 dollars to adjust for inflation.

³ Tax estimates are primarily based on U.S. Census Bureau state-level data on sales, income, property and other taxes that are allocated to counties using a variety of factors. Due to this tax allocation process, IMPLAN figures should be considered a broad estimate that does not include specific local taxing district figures or potential fiscal expenditures associated with an economic activity that can decrease tax benefits.

Methodology

The economic impact analysis used estimates from an input-output economic model, called IMPLAN, that the researchers modified based on data collected from COLT. IMPLAN data are updated annually from three main sources: the U.S. Bureau of Labor Statistics, Bureau of Economic Analysis and Census Bureau. COLT provided jobs, sales, and tax information on two existing Boone County businesses that have indicated a need to relocate if rail operations were to cease. Together these two companies employed 85 individuals and had nearly \$110M in gross annual sales in 2022. One company also plans to spend \$50M for a multi-year facility expansion assuming rail operations continue. That construction – slated to begin in late 2024 – would take five years. Other companies noted operational challenges – such as increased transportation costs – if rail and transload activities were to stop but did not indicate an imminent relocation. This analysis only includes the two businesses that would be forced to leave without rail service to provide a conservative estimate of economic losses.

Regional Spending Effects

Economic models track the flow of spending that moves around an economy through primary relationships between businesses and consumers. Models consider what companies typically purchase to produce goods or services, where those companies are located and how workers spend the income they earn from making consumer products and services. The models follow these spending patterns to understand the larger economic impacts that circulate within a region and to what extent income leaks out due to imports.

Spending effects describe how a business' final sales (direct effects) cause money to flow to regional supply chains and consumer-oriented firms (indirect effects) to support additional jobs, wages, profits, taxes and so forth. These spending impacts can be broken out by direct, indirect, and total effects.

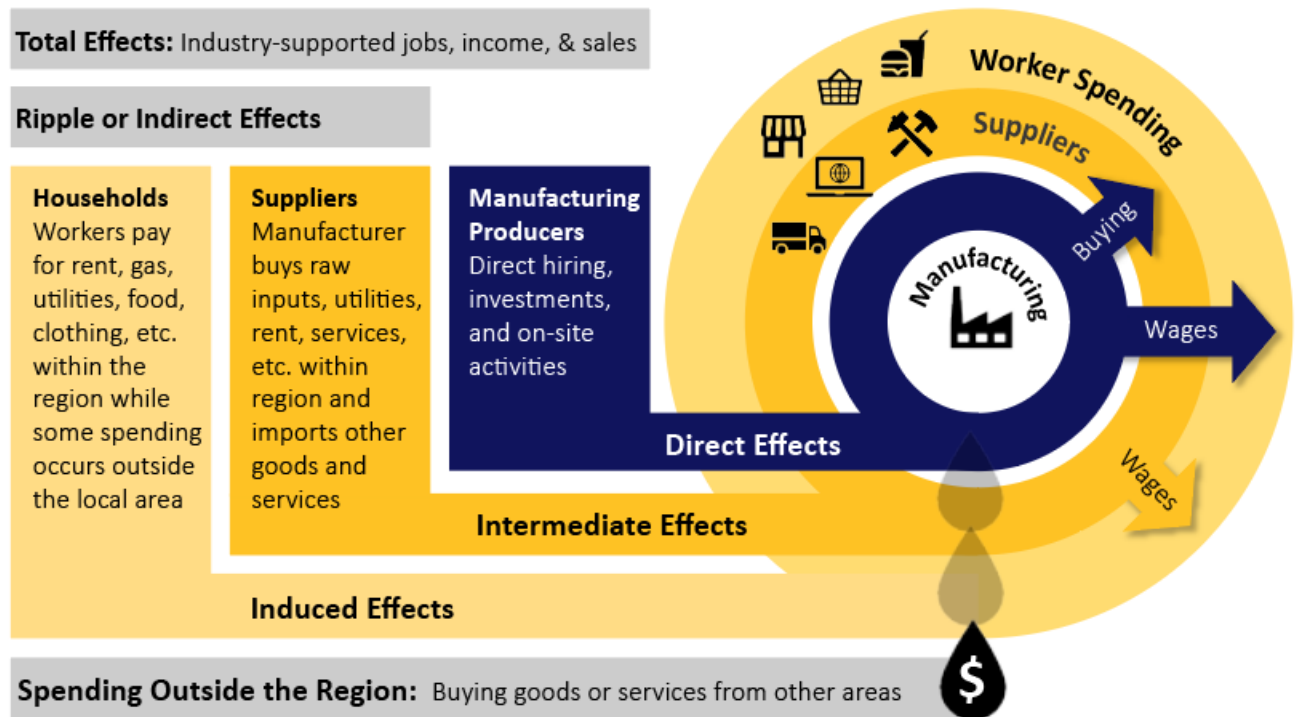
Direct Effects include the revenue, wages and jobs that come from selling a product or service for consumption. For a manufacturing business, this includes the sales of manufactured goods. To make these sales, the business owners invest in buildings, equipment, and technology; buy supplies and services; and employ full- and part-time workers. Direct effects drive the other indirect effects in a region's economy.

Indirect Effects are the ripple impacts of spending in a region that have two parts:

- **Intermediate effects** are impacts from supply-chain purchases. For example, a manufacturer buys components from another manufacturer, which purchased the raw inputs from a processor that purchased raw materials from a mine and so on. At each step in the supply chain, some purchases are made outside the region, state or country for specialized inputs or price considerations. That spending leaks out of the region during each cycle of purchasing.
- **Induced effects** capture the household spending of individuals who own and work for these manufacturers or its suppliers. For example, the owners purchase groceries and clothing in the local economy. Just like suppliers, workers spend some of their income outside the region for goods and services such as travel, online purchases, and specialized goods.

Total Effects combine the direct effect of jobs and income from a business or industry with the indirect effects of supplier and household spending within the region; these effects support additional employment and wealth. The diagram of spending flows in Exhibit 5 further illustrates the regional spending ripple effect that input-output models describe.

Exhibit 5. Economic Model of Spending Flows: Manufacturing Example



Economic Analysis Terms

The IMPLAN model shows how direct spending can have monetary and labor ripple effects that benefit businesses and workers in a community. Key spending effect figures include:

- **Gross output** (or **total sales**) estimates the total value of all sales, including the input cost of making a good or service along with the money received when that product is sold for final use.
- Gross domestic product (GDP) is the **value-added** part of total sales (or **final sales**). Value-added deducts the cost of goods and services from total sales to show what new money is left to pay wages, profits, rents, interests, and taxes.
- **Labor income**, which captures wages, benefits and owner pay, is a part of the value-added impact. It represents all spending, including health, retirement, and other benefits, directed to workers and income earned by proprietors.
- **Jobs** estimates annual average full- or part-time jobs needed for business operations.

Economic Model Limitations

Although IMPLAN is an excellent tool for understanding spending impacts, input-output models have some underlying limitations, including these:

- **No supply constraints:** The model assumes no supply constraints on products, services or labor that would alter inputs needed by an industry. Although the model can be adjusted if specific constraints are known, rarely will such detailed industry information be available, and those constraints can change periodically depending on broader economic conditions.

- Static input structure: The model is based on national survey information and assumes that the type and ratio of inputs needed by an industry are fixed. The model also assumes a constant return to scale and technology use.
- Backward-linked structure: The model considers an industry’s input supply chain effects and does not account for forward-linkage effects such as sales cannibalization from existing businesses.

Economic Model Adjustments for this Study

Tax information (property, utility) was provided by the two businesses to provide a more accurate account of expected impacts to local tax revenues. Expected annual tax revenue accrued to the City of Columbia and Boone County as a result of the combined activities of the two businesses and the new construction activity.

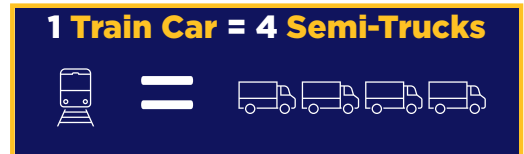
In the absence of more detailed information, expected annual tax revenues accrued to the State of Missouri, and to city and county governments throughout the rest of Missouri, are estimated by the IMPLAN input-output model.

Environmental & Safety Considerations

Moving freight over rail is more energy efficient than trucking in terms of ton-miles per gallon of fuel and greenhouse gas (GHG) emissions. Rail freight also results in significantly fewer accidents, injuries, and deaths.

Research has demonstrated that freight rail contributes 21.2 metric tons of GHG emissions per million ton-miles, while trucks contribute 154.1 metric tons of GHG per million ton-miles. Accounting for this discrepancy, rail is over seven times more energy efficient than trucking in terms of GHG emissions. Regarding fuel efficiency, trains each move 477 ton-miles per gallon of fuel, while for trucks it's only 145 ton-miles per gallon.

In 2015, the Bureau of Transportation Statistics (BTS) reported 116,000 incidents related to freight moved by semi-trucks and only 4,101 related to freight moved by railroad. Additionally, in 2015, truck freight resulted in 4,067 fatalities compared to 502 for rail freight. The U.S. Army Corps of Engineers reports that one train car can hold up to three to four times the cargo of a semi-truck. Assuming a projected 1,300 rail cars move over COLT each year which would need to be rerouted to overland trucking, an estimated 5,200 trucks would be required to haul the current level of output.



Detail regarding the type of emissions by GHG for both truck and rail freight is included in exhibit 6. Figures are in gallons per Twenty-Foot Equivalent Unit (TEU, or ‘20-foot container’)⁴. The first chart represents GHG emissions in gallons/TEU-mile for truck and rail freight, respectively. The second chart details COLT’s current emissions (1,300 rail cars⁵) as well as the expected emissions (5,200 trucks) that would be required to move current output through overland trucking.

In the absence of COLT, the overland transportation of current output would contribute:

- 9.7 times the amount of volatile organic compounds;
- 16.8 times the amount of carbon monoxide;
- 9.8 times the amount of nitrous oxides;
- 6.9 times the amount of particulate matter;
- 29.3 times the amount of sulfur dioxides; and
- 27.6 times the amount of carbon dioxide.

⁴ A TEU, or twenty-foot equivalent unit, is a common defined container unit for shipping cargo, and at its standard, it is 20 feet long, 8'6" feet high and 8 feet wide.

⁵ This figure represents the expected annual freight transported via COLT in fiscal year 2024. It includes the activities of the two businesses analyzed by this report and all other freight activities.

Exhibit 6. Summary of Emission Factors

Emissions per g/TEU-mi	Mode	Pollutant ⁶					
		VOC	CO	NO _x	PM ₁₀	SO _x	CO ₂
	Truck	0.34	1.64	6.86	0.12	0.22	1,001.00
	Rail	0.14	0.39	2.81	0.07	0.03	144.97

Annual Emissions of COLT operations	Mode	Pollutant					
		VOC	CO	NO _x	PM ₁₀	SO _x	CO ₂
	5,200 Trucks*	1,768	8,528	35,672	624	1,144	5,205,200
	1,300 Rail Cars	182	507	3,653	91	39	188,461

*Note: This figure represents an estimation of the freight requirements of current business operations in the absence of COLT.

Facility Background

Owned by the City of Columbia and operated by City of Columbia Utilities since 1987, COLT Railroad and Transload provides a multitude of shipping services.

A community-owned, community-operated short-line railroad and transload facility, COLT, a Class III railroad with two locomotives, interchanges with the Norfolk Southern's main line in Centralia, Missouri.

From Columbia to Centralia, the rail line is generally parallel to State Highway B to Hallsville and State Highway 124 to Centralia. COLT's 21 miles of track are rated FRA Class II, allowing for 25 mph train speeds.

In Columbia, the rail line is located just west of the Highway B industrial corridor, crosses Highway 63 approximately 2.5 miles north of Interstate 70 and ends south of Rogers Street near the center of town.

The COLT Transload Facility offers the following services and resources:

- Direct receiving and shipping.
- Full-service short- and long-term warehousing.
- Environmentally controlled unloading and storage.
- 83,000 square feet of storage under one roof and 13 acres of fenced outdoor storage with security system.
- Rail spur running directly into and through the warehouse.
- 20 rail car spots.
- Boxcar and center-beam flatcar compatible.
- 13 van-height, back-in truck doors.
- Three pull-through truck doors.
- 58,000-pound-capacity overhead crane.
- Five fork trucks; one each of 15-ton, 12.5-ton, 7.5-ton, 2.5-ton and 1.8-ton.
- RF bar code scanning and bar code label creation.

⁶ VOC = Volatile Organic Compounds; CO = Carbon Monoxide; NO_x = Nitrous Oxides; PM₁₀ = Particulate Matter (inhalable particles, with diameters generally 10 micrometers and smaller); SO_x = Sulfur Oxides; and CO₂ = Carbon Dioxide.

Columbia Short Line Railroad Timeline

October 29, 1867: The Columbia branch railroad begins passenger service, mail delivery and freight service along a 21.7-mile stretch from Centralia, MO.



November 1969: After more than 100 years of service, the last passenger train runs along the Columbia branch.

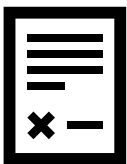
June 1, 1982: The Norfolk & Western and the Southern Railway Company become subsidiaries of the Norfolk Southern Corporation.

September of 1984: The Norfolk Southern Railroad officially announces that they intend to abandon the Columbia Branch railroad.

June 3, 1985: The Columbia City Council approves \$7,500 to explore the city's options regarding the Columbia Branch and the viability of operating the line. The conclusion of the study is that the city should look seriously at purchasing the line and operating the line for the purposes of preserving existing business, future economic development, and the possibility of future coal shipments from out of state.



October 1985 to March 1986: City officials, with a consultant, negotiate with the railroad company and begin the process of preparing the legal documents for the possible purchase of the line.



July 7, 1986: The Columbia City Council appoints seven men to a special Railroad Advisory Board for the purpose of advising them on railroad matters. The seven men were: Peter N. Davis, a law professor at the University of Missouri; Howard R. Eiffert, Owner of Boone County Lumber Company; Lowell W. Morse, Vice President of Distribution and Transportation for MFA Incorporated; Dennis G. Jones of the Boone County Fire Protection District; Harry J. Wulff, of Wulff Brothers Masonry Corporation; Jack Blaylock, of Cannon & Blaylock Realty; and attorney David B. Rogers.

Winter of 1987: Two names are considered for the railroad, Columbia Area Rail Services (CARS) and Columbia Terminal (COLT).

April 20, 1987: The Columbia City Council unanimously votes to approve the purchase of the Columbia Branch Railroad.

October 2, 1987: The city of Columbia officially purchases the Columbia Branch from the Norfolk Southern Railroad Company saving the line from abandonment. The purchase price for the line is \$325,000. The city is also awarded \$500,000 in federal grant money for track improvements.



October 6, 1987: COLT Engine #1 takes off for Centralia, as the City of Columbia's COLT railroad began operations as a handling line for Norfolk Southern, interchanging with their main line in Centralia, Missouri. Shippers work directly with the Norfolk Southern Railroad for car supply, tariffs, billing, collections, and general marketing.

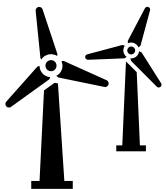
January 1990: Columbia Water and Light receives first rail shipments of low sulfur coal from out of state.

September 1990: Columbia Water & Light plans a series of passenger excursions on the COLT line.

April 1998: COLT hits a new milestone! During the first few years of operation, COLT mainly handles traditional railroad traffic, which is delivery of freight to customers directly served by the railroad. In April 1998, COLT hauls its ten thousandth carload of traditional freight to Mid-City Lumber.



2001: COLT purchases second locomotive.



2004: The residents of Columbia pass a Renewable Energy Standard which outlines renewable energy goals; changing the course of Columbia's energy sourcing/procurement established in the Ordinance.

1996-2004: Norfolk Southern Railroad and COLT staff increase marketing efforts which identify additional nontraditional freight opportunities for COLT/Norfolk Southern by providing transloading. Transloading provides rail advantage for industries not directly served by rail by use of rail to truck and/or truck to rail deliveries.

2004: With a public private partnership, the COLT Transload begins operation. The transloading services⁷ allow for freight shipments of these non-traditional railroad customers to be converted from all truck transportation to rail freight transportation. In 2010, the City of Columbia takes over operation of the transload and provides enhanced freight services as part of COLT to this day. Product can be delivered via rail and is then offloaded to storage. Customers then arrange for their individual deliveries by truck to local industry or business when product is needed. The reverse of this can occur as well.

⁷ Rail and rail /transload operations provide an environmentally friendly, safe, and cost-effective mode of transportation for those shipping heavy or bulky commodities for distances of 300 miles or more. The truck to rail ratio is 4 to 1.

June 2009: The Missouri Department of Transportation partners with public agencies and a private company to determine expansion feasibility of intermodal freight movement through COLT in Central Missouri. Businesses and shippers are surveyed to determine feasibility. Survey responses indicate over 450,000 twenty-foot equivalent units (TEU) of freight are passing through Central Missouri annually. Those interested in containerization or transloading service out of Columbia total over 140,000 TEUs inbound and outbound annually.

July 16, 2010: The City of Columbia formally celebrates the one-hundred-year anniversary of the Wabash station. The facility is used as the main hub for the city's bus system.



September 14, 2010: The first train crosses over Highway 63 on the newly constructed bridge.

October 1, 2012: COLT celebrates 25 years in business.



September 29, 2015: The City of Columbia Power plant ceases burning coal delivered by COLT Railroad as the city transitions to alternative energy and renewable energy sources.

June 2022: COLT is awarded a MODOT Freight Enhancement Grant for infrastructure.

July 2023: COLT Executive Crew Receives the American Short Line Railroad Association's Safety Award, known as the Jake Award with distinction for the past consecutive 23 years.

Sources:

- Austin, David. Congressional Budget Office. (2015). *Pricing Freight Transport to Account for External Costs*. Congressional Budget Office Working Paper Series. https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/workingpaper/50049-Freight_Transport_Working_Paper-2.pdf
- Protopapas, Annie & Kruse, C. & Olson, Leslie. (2013). *Modal Comparison of Domestic Freight Transportation Effects on the General Public*. Transportation Research Record: Journal of the Transportation Research Board. 2330. 55-62. 10.3141/2330-08.
- RSI Logistics. (2020) Comparing the Costs of Rail Shipping vs Truck. <https://www.rsilogistics.com/blog/comparing-the-costs-of-rail-shipping-vs-truck/>
- Tolliver, Denver & Lu, Pan & Benson, Douglas. (2013). *Comparing rail fuel efficiency with truck and waterway*. Transportation Research Part D: Transport and Environment. 24. 69–75. 10.1016/j.trd.2013.06.002.
- United States Army Corps of Engineers, Walla Walla District. *Compare Cargo Capacities*. <https://www.nww.usace.army.mil/Portals/28/docs/navigation/CargoComparison.pdf>
- United States Department of Transportation, Bureau of Transportation Statistics. (2021). Average Freight Revenue per Ton-Mile. <https://www.bts.gov/content/average-freight-revenue-ton-mile>
- United States Department of Transportation, Bureau of Transportation Statistics. (2017). *Freight Facts and Figures*. https://www.bts.dot.gov/sites/bts.dot.gov/files/docs/FFF_2017_Full_June2018revision.pdf
- United States Department of Transportation, Research and Special Programs Administration. (2016). *Emissions Analysis of Freight Transport Comparing Land-Side and Water-Side Short-Sea Routes: Development and Demonstration of a Freight Routing and Emissions Analysis Tool (FREAT)*. <https://www.transportation.gov/sustainability/climate/emissions-analysis-freight-transport-comparing-land-side-and-water-side-short>