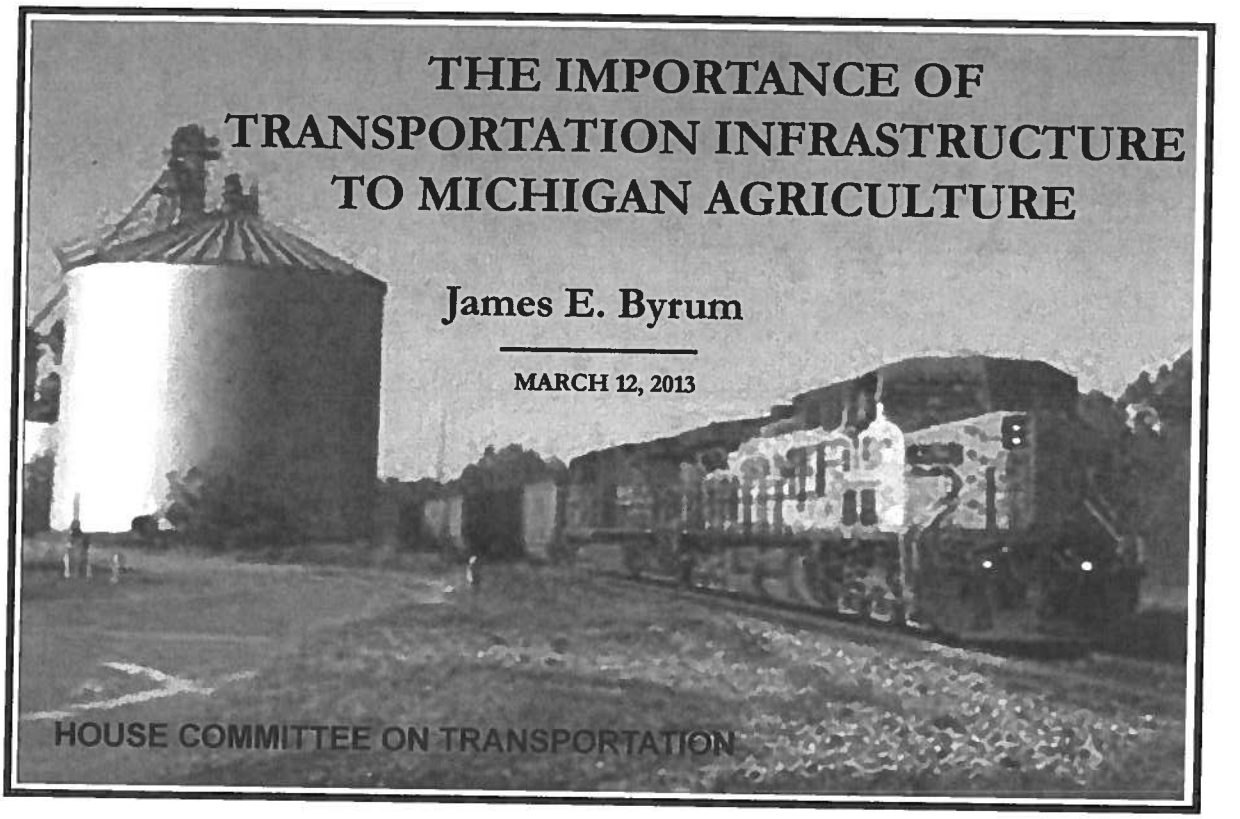

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

Corn	Acres	Yield[1]	Production[2]
1970	1,730,000	81	140,130,000
2010	2,450,000	150	367,500,000
Soybeans			
1970	515,000	26	13,390,000
2010	2,100,000	45	94,500,000
Wheat			
1970	495,000	39	19,305,000
2010	510,000	70	35,700,000
Total Bushels			
1970	**2,740,000**		**172,825,000**
2010	**5,060,000**		**497,700,000**

[1] bushels/acre [2] bushels

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

Corn	Acres	Yield[1]	Production[2]
2010	2,450,000	150	367,500,000
2025	2,662,000	250	666,500,000
Soybeans			
2010	2,100,000	45	94,500,000
2025	2,282,500	65	148,362,500
Wheat			
2010	510,000	70	35,700,000
2025	555,500	110	61,105,000
Total Bushels			
2010	**5,060,000**		**497,700,000**
2025	**5,500,000**		**874,967,500**

[1] bushels/acre [2] bushels

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- Infrastructure Needs
  - Fertilizer Storage and Handling
  - Grain Receiving, Storage and Handling
  - Transportation Needs

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

Truck (doubles)	1,500 bushels
Rail Hopper Car	3,500 bushels
90 Car Unit Train	315,000 bushels
Vessel	600,000 - 750,000 bushels
Truck Van Trailer	40,000 pounds of freight
Rail Box Car	156,000 pounds of freight

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- Roads and Bridges - Issues
  - Reduced Weight Limits
  - Poor Construction
  - Grain Hauling
  - Equipment

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- Roads and Bridges – Grain Hauling

1970 Gravity Wagon	17,000 Pounds
1990 Tandem Trucks	30,800 Pounds
2013 Hopper Trailers	67,200 Pounds
Doubles	84,000 Pounds

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- TRACTORS

AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- Roads and Bridges – Equipment

TRACTORS

1945 International M	5,000 Pounds
1965 3020 John Deere	8,500 Pounds
2013 9200 John Deere	31,000 Pounds

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- COMBINES

AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- Roads and Bridges – Equipment

COMBINES

1970 John Deere 95	7,000 Pounds
1985 John Deere 7700	14,650 Pounds
2013 John Deere S 670	18,000 Pounds

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- Roads and Bridges – Equipment

COMBINE BIN CAPACITY

1970 John Deere 95	5,000 Pounds
1985 John Deere 7700	10,000 Pounds
2013 John Deere S 670	22,000 Pounds

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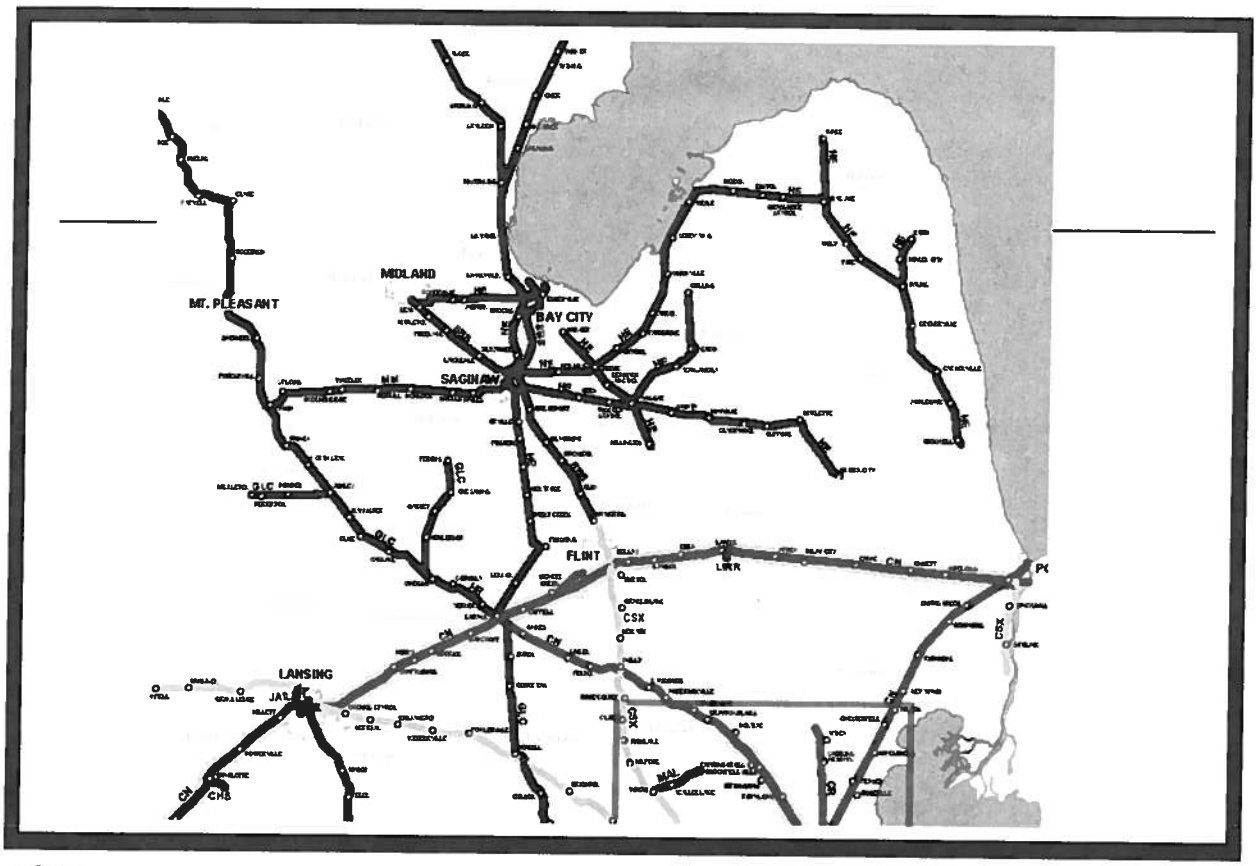

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

Corn	40,000,000 bushels annually
Soybeans	11,000,000 bushels annually
Wheat	11,000,000 bushels annually
Dry Beans	3,000,000 hundredweight annually

* Huron, Tuscola and Sanilac Counties

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

Corn	50% by rail	20,000,000 bushels
Soybeans	80% by rail	9,000,000 bushels
Wheat	40% by rail	4,400,000 bushels
Dry Beans	50% by rail	1,560,000 hundredweight

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

		Trucks	Rail
Corn	20,000,000 bushels	13,300 *1	5,700 *2
Soybeans	9,000,000 bushels	6,000	2,600
Wheat	4,400,000 bushels	3,000	1,250
Dry Beans	1,500,000 hundredweight	3,750 *3	950 *4

*1 1,500 bushel, double trailer grain trains

*2 3,500 bushel rail hopper car

*3 40,000 van semi (can't haul larger loads because these are shipped outside of the state of Michigan

*4 156,000 pound railroad box car

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

MOVEMENT OF AGRICULTURAL PRODUCTION

Currently moved by 9,550 rail hopper cars

If switched to trucks

22,300 trucks!

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

22,300 Trucks at 80 feet

1,784,000 feet of trucks, or 340 miles of trucks stretched end to end, or a solid convoy of trucks that would stretch from Lansing to Saginaw, and back, TWICE ! *

* 22,300 grain trucks (doubles), 80 feet long, and 950 semi trucks with van trailers, 60 feet long

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

Hauling grain by truck instead of rail would increase the cost of transportation from the Thumb to destination by an estimated $.50 per bushel.

33,4000,000 bushels @ $.50 = 16,700,000

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

Hauling dry beans by truck instead of rail would increase the cost of transportation from the Thumb to destination by an estimated $10 per hundredweight.

1,500,000 hundredweight @ $10 = 15,000,000

An annual Increase in Transportation Cost for Corn, Soybeans, Wheat and Dry Beans $31,700,000

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

$31.7 million in **EXTRA COSTS without rail**

This additional cost will appear as an expense to producers, and a decrease in their income!

Just from Huron, Tuscola and Sanilac Counties Every Year!

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- Not enough trucks
- Road and infrastructure damage
- Road congestion
- Safety

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

	Bushels[1]	% by Rail	Total Bushels by Rail[1]
Corn	302,430,000	50	121,882,500

[1] Annually

- 121,882,500 bushels @ $.50 = $60,941,250
- 121,882,500 bushels ÷1500 bushels per truck = 81,255 trucks
- 121,882,500 bushels ÷ 3500 bushels per rail car = 34,825 rail cars

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

	Bushels[1]	% by Rail	Total Bushels by Rail[1]
Soybeans	86,700,000	80	61,135,000

[1] Annually

- 61,135,500 bushels @ $.50 = $30,567,500
- 61,135,500 bushels ÷1500 bushels per truck = 40,760 trucks
- 61,135,500 bushels ÷ 3500 bushels per rail car = 17,465 rail cars

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

	Bushels[1]	% by Rail	Total Bushels by Rail[1]
Wheat	34,615,000	40	13,846,000

[1] Annually

- 13,846,000 bushels @ $.50 = $6,923,000
- 13,846,000 bushels ÷1500 bushels per truck = 9230 trucks
- 13,846,000 bushels ÷ 3500 bushels per rail car = 3960 rail cars

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

	cwt[1]	% by Rail	cwt by Rail[1]
Dry Beans	3,000,000	50	1,500,000

[1] Annually

- 1,500,000 cwt @ $10.00 cwt = $15,000,000
- 1,500,000 cwt ÷4000 lbs per truck = 3700 trucks
- 1,500,000 cwt ÷ 160,000 lbs per rail car = 950 rail cars

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

$$$ IMPACT 194,000,000

Approximately 160,000 trucks

vs.

Approximately 67,000 rail cars

Almost 2,400 miles of trucks

EVERY YEAR!

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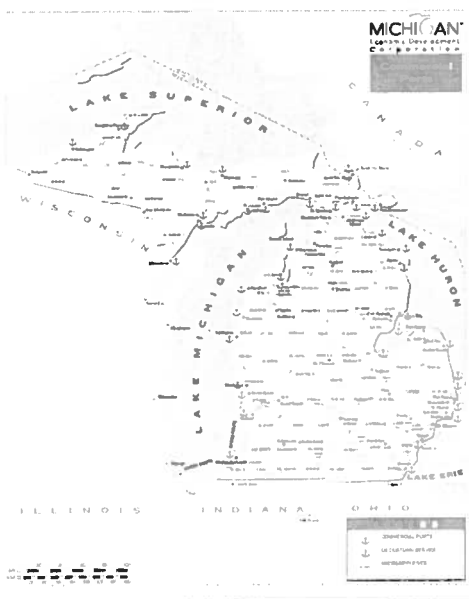
AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- Water Transportation



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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- Water Transportation
  - Dredging
  - Ballast Water Discharge
  - Barges
  - Age and Availability on Vessels and Barges

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- Comprehensive Transportation Solution
  - Roads and Bridges
  - Railroads
  - Water Transportation

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

- Comprehensive Transportation Solution
  - Help Maintain and Improve the Life of Roads and Bridges
  - We can't find enough drivers
  - The Lack of a Solid Transportation Infrastructure will limit the growth of our industry

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AGRICULTURAL TRANSPORTATION INFRASTRUCTURE

Logistics and Transportation are the Life Line of Michigan Agriculture and Will Drive our Continued Growth and Success

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