



Regional Freight Plan FTAC Meeting #4

presented to

*Regional Planning Commission of
Greater Birmingham*

presented by

Cambridge Systematics, Inc.

with

Volkert, Inc.

Creative Directions, Inc.

May 18, 2018

Agenda

- Introductions
- Freight profile
- Land use conflicts
- Freight funding sources
- Top freight priorities
- Prioritize recommendations
- Ongoing FTAC role
- Wrap Up



AGENDA

Birmingham MPO Freight Plan

Freight Transportation Advisory Committee Meeting #4

Friday, May 18, 2018, 11:30AM – 1:00PM CDT

1. Introductions
2. Freight Profile
3. Land Use Conflicts
4. Freight Funding Sources
5. Top Freight Priorities
6. Prioritize Recommendations
7. Ongoing FTAC Role
8. Wrap Up

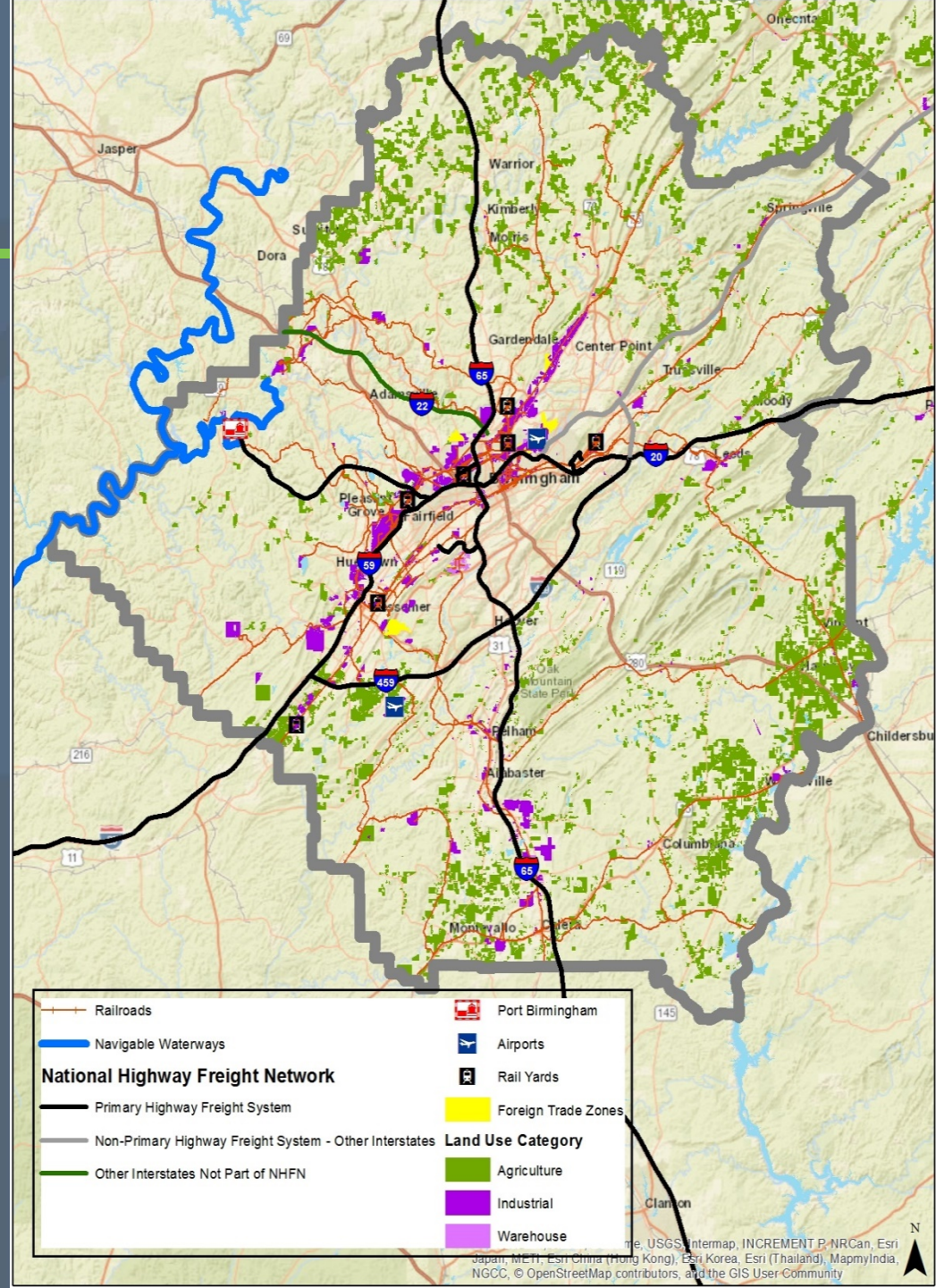
Why is a Freight Plan Important?

- Freight operations have different needs than passenger movements
- Freight mobility supports economic prosperity and opportunity
- Interaction of freight with other system users can create conflicts
- Federal guidance relating to freight transportation to states and MPOs continues to strengthen
- MPO is responsible for identifying and prioritizing transportation needs for all system users as well as educating the public



Regional Freight System

- Roadways
- Railroads
- Waterways
- Ports
- Airports
- Pipelines



Regional Freight System



Highway/Trucks

- National Primary Highway Freight Network includes majority of Interstates and several key connectors (with connections to Port Birmingham, Colonial Pipeline, Earnest Norris Rail Yard, and BNSF Railway Dixie Hub Center)
- Interstates (I-20, I-22, I-59, I-65, I-459) provide access in all directions as well as partial beltways
- National Highway System Intermodal Connectors (providing connections to Port Birmingham, Colonial Pipeline, Birmingham International Airport, Earnest Norris Rail Yard, BNSF Railway Dixie Hub Center, and Greyhound Bus Terminal)
- State and US highways (AL 269, AL 79, AL 149, US 31, US 78, US 11, US 280)
- Local arterials

Railroads

- Norfolk Southern with two facilities: Birmingham Regional Intermodal Facility and Ernest G. Norris Yard
- CSX Transportation with four facilities: Boyles Yard; TDSI auto distribution terminal; TRANSFLO Terminal Service Bulk Transfer Terminal; and Central Alabama Intermodal Container Transfer Facility
- BNSF Railway with four facilities: Birmingham Vehicle Facility; Industrial Chemicals; DC Warehouse; Trans Load Corp
- Alabama & Tennessee River Railway
- Alabama Warrior Railway
- Birmingham Terminal Railway

Aviation

- Birmingham-Shuttlesworth International Airport (BHM) with 12,000 and 7,100 foot runways and dedicated cargo facility
- Bessemer Municipal Airport (EKY) with a 6,000 foot runway and small scale cargo operation

Ports/Waterways

- Port Birmingham consisting of 184 acres with a half mile of frontage on the Black Warrior River
- Black Warrior River which connects to the TomBigBee River, which eventually allows for the connection to both the Alabama River and the Tennessee River

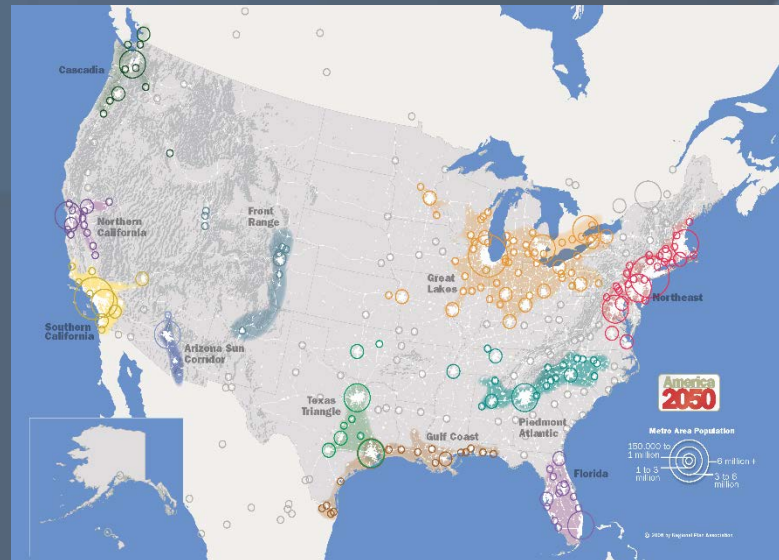
Other Freight System Components

- Warehouses
- Distribution centers
- Trucking companies
- Foreign trade zones
- Industrial parks
- Manufacturers



Piedmont Atlantic Megaregion

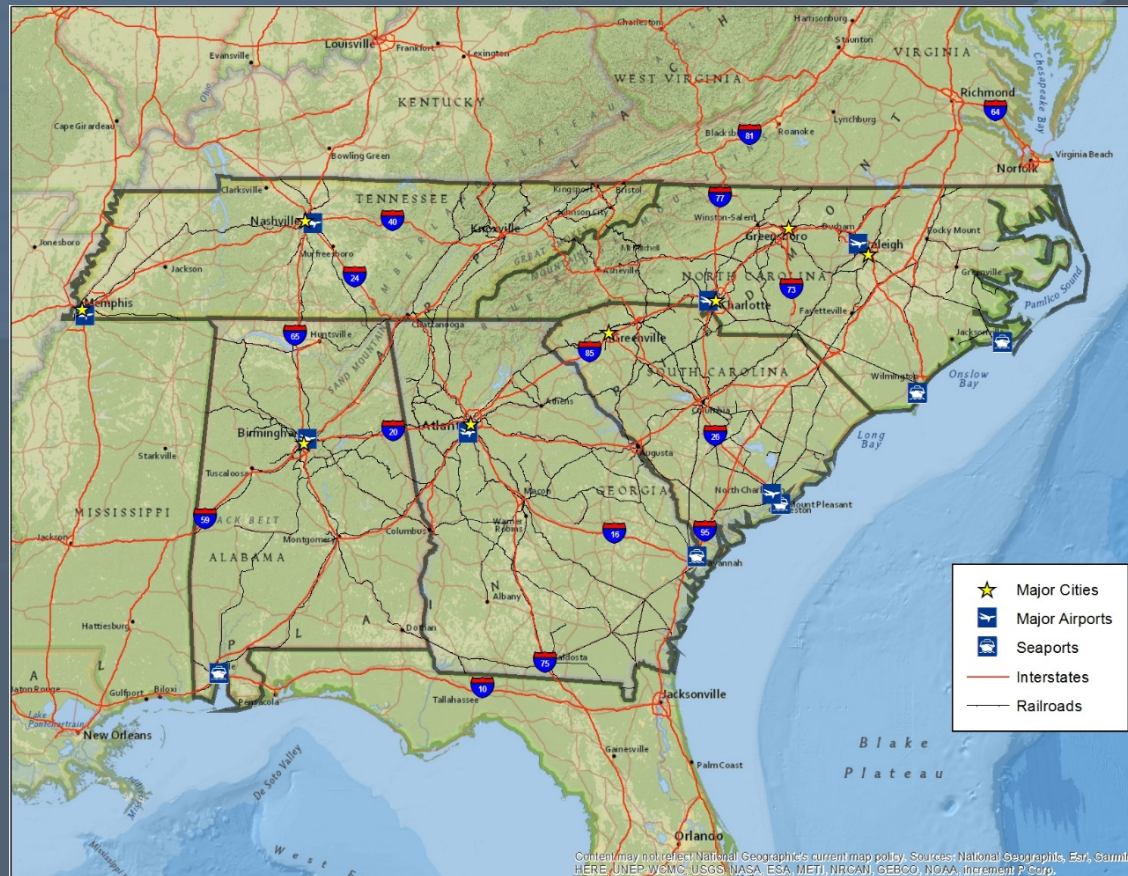
- “Megaregions” are clusters of metropolitan areas linked by economic relationships
- Birmingham is a core city within the Piedmont Atlantic megaregion which spans from central North Carolina to Alabama and western Tennessee including:
 - » Raleigh-Durham
 - » Greensboro--Winston-Salem--High Point
 - » Charlotte
 - » Greenville
 - » Atlanta
 - » Birmingham
 - » Nashville
 - » Memphis
- Piedmont Atlantic megaregion contains some of the fastest-growing population centers and economies in the nation



Piedmont Atlantic Megaregion

➤ Multimodal freight transportation system serving and connecting the urbanized areas within this megaregion consist of:

- » Interstates
- » Class I railroads
- » Major international airports
- » Major gateway seaports



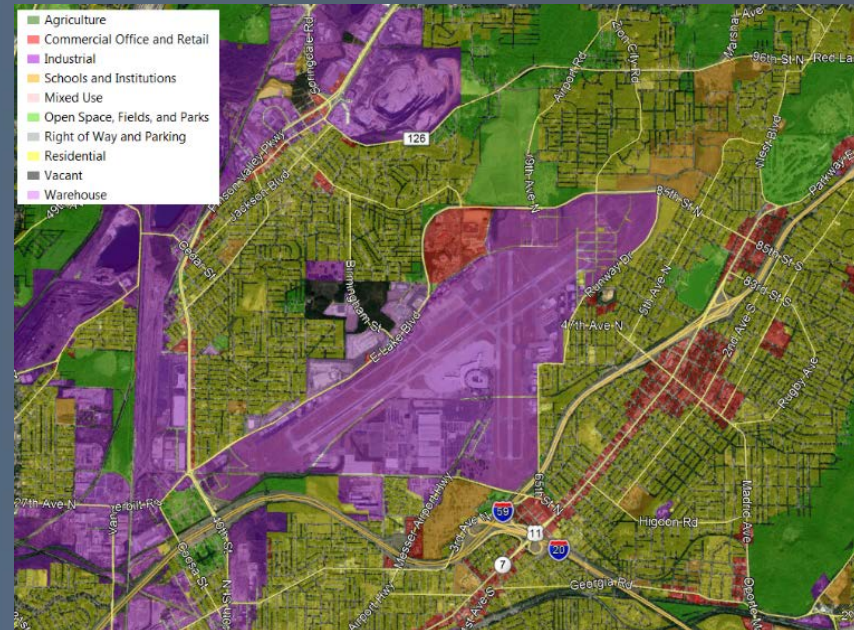
Land Use Conflicts

- Freight provides access to the goods and services that support the region's economy and quality of life
- Conflicts can arise when freight facilities are poorly sited or designed, and when residential development encroaches on existing freight facilities
- Many of these conflicts can be mitigated with proper planning and zoning implementations
- Examples of types of conflicts include:
 - » Mixed development
 - » Commodity preferences
 - » Reuse and community integration

Land Use Conflicts

Mixed Development – Airport

- Most common type of conflict occurs when freight facilities are developed in close proximity to other types
- Birmingham-Shuttlesworth International Airport (BHM)
 - » BHM is surrounded by several residential communities
 - » Traffic and related noise impact the local community
 - » BHM has worked to acquire surrounding land parcels to help abate these concerns and to prepare for future growth



Land Use Conflicts

Mixed Development – Tank Farm

➤ Jones Valley Tank Farm Cluster

- » Tank farm is surrounded by residential properties as well as Wenonah High School
- » Without direct access to the Interstate system, trucks must travel through these residential areas to access their destinations
- » Hazmat routes, truck restrictions, and railroad grade crossings result in numerous trucks mixing with hundreds of students on their way to and from school



Land Use Conflicts

Commodity Preferences – Sewage Waste

- Commodity desirability varies by handling and storage requirements, physical characteristics, and community standards
- Typically, the less visible the commodity the less likely it will be to cause conflict
- Big Sky Environmental
 - » Shipment of sewage waste from NY and NJ into West Jefferson resulted in community opposition
 - » County determined this was a violation of zoning laws and operation was relocated to Parrish
 - » Parrish residents also complained but the community had no zoning regulations to block the train cars

Stranded NYC 'poop train' has small-town Alabamians stinking mad

Parrish, Alabama, has been forced to endure a trainload of human waste after the stinky cargo was stranded on its way to a landfill two months ago.

by Associated Press / Apr. 18, 2018 / 11:43 AM ET

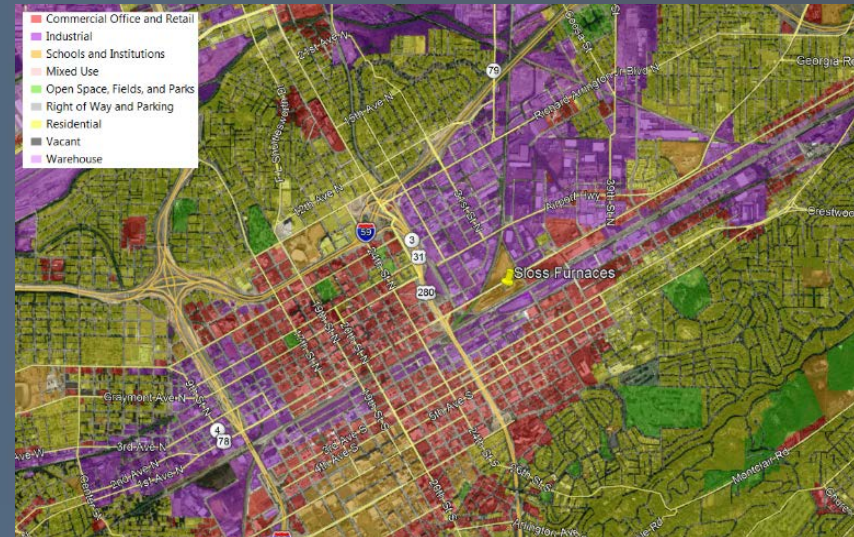


<https://www.nbcnews.com/news/us-news/stranded-nyc-poop-train-has-small-town-alabamians-stinking-mad-n866991>

Land Use Conflicts

Reuse and Community Integration

- The closure of a business, while a potentially permanent loss of jobs and economic activity, can provide the opportunity for new businesses to develop in the area.
- Sloss Furnaces
 - » Ceasing operations in 1971, Sloss Furnaces became one of the first industrial sites and only blast furnace in the U.S. to be preserved and restored for public use
 - » Site designated as a National Historic Landmark in 1981
 - » Guided tours of the property educate visitors on the importance of Birmingham's iron and steel industry
 - » This reuse creates opportunities to educate the public about industry and its importance to the region



Identification and Prioritization of Freight Needs



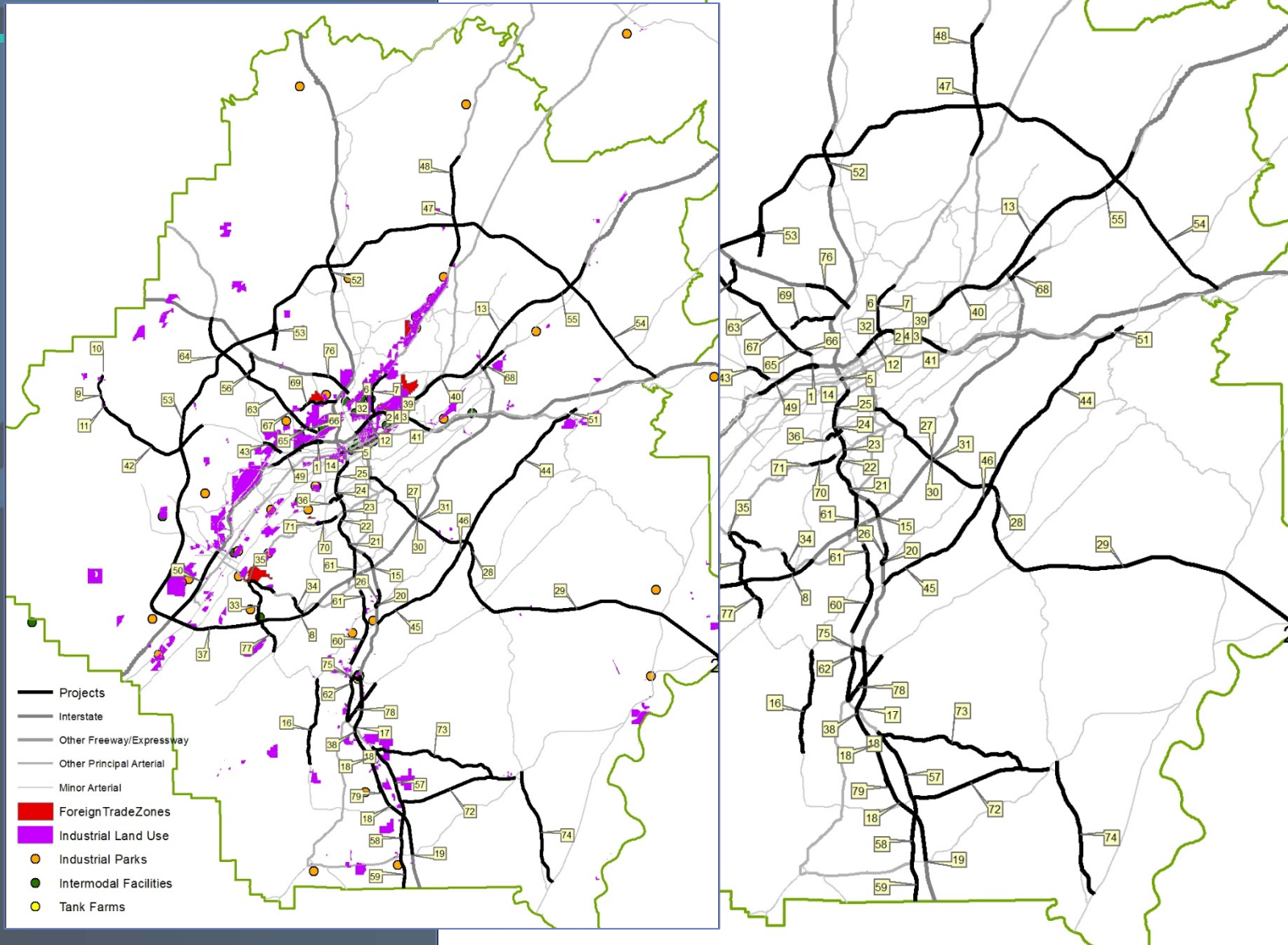
- Needs identified for all modes of transportation
- Needs identified based on available plans, data analysis, stakeholder input, and professional judgement
- Needs prioritized based on potential to contribute to the advancement of regional goals and objectives
- Project types included capacity, operations, and maintenance
- Needs reflect short, medium and long term projects, exceeding \$5 billion in total over next twenty years

Top Freight Priorities by Mode

Roadways	
SR-269 Install Bridge	South of Port of Birmingham
US-78 Widen - 4 to 6 lanes	Finley Blvd to Pratt Hwy
20/59 and Airport Highway Interchange	Operational improvements
US-78 Bridge Replacement	Over Dugan Ave
AL-79 Widen and Drainage Correction 4 to 6 lanes	SR-79 from 400' South of I-59/I-20 to East Lake Blvd
Oxmoor Rd Intersection Improvements	Oxmoor Blvd-Green Springs to Barber Ct
SR-269 Widen - 2	Widen 4 to 6 lanes
I-65 Steep Grades - Auxiliary Lanes	Oxmoor Rd to Greensprings Ave
US-11 Widen 4 to 6 lanes	I-459 to Tutwiler Drive
I-65 Widen - Auxiliary Lanes	Lakeshore Pkwy to Oxmoor Rd
I-65 and 3rd Ave N Interchange	Operational improvements
AL-150 Add Lanes	Morgan Rd at Bessemer to MP 4.3 W of Parkwood Rd.
20/59 and Arkadelphia Rd Interchange	Pavement resurfacing
AL-79 Corridor Resurfacing	E Lake Blvd to Springdale Rd
I-459 Resurfacing	Between Exits 6-10
I-65 Widen - Auxiliary Lanes	Oxmoor Road to Greensprings Ave
US-280 Add Lanes - Auxiliary Lanes	I-459 to Cahaba River Rd
SR-79 Bridge Replacement	Over Gurley Creek
US-411 Widen	2 to 4 lanes
US-31 Widen - 4 to 6 lanes	Riverchase Pkwy to I-65
Lakeshore Pkwy Widen - 4 to 6 lanes	Oxmoor Rd to Industrial Dr

Roadways	
CR-52 Widen - 3 to 4 lanes	I-65 to US 31
CR-11 Widen - 2 to 3 lanes	US-31 to East Weatherly Entrance
CR-87 Widen - 2 to 4 lanes	CR-12 North .55 miles
CR-94 - Add left turn lanes	Cherry Ave to I-65
Port	
Port Birmingham Warehouse	Climate controlled space
Container On Barge Service	Dock improvements, laydown areas, and equipment
Rail Siding Expansion	New track for bi-directional movements
Terminal Related Dredging Improvements	Maintenance dredging and potential deepening
Truck Related Technology Investments at Port	Support for truck operations
Airport	
Taxiway A/Village Creek Realignment (BHM)	Environmental Assessment Construction
Taxiway H Relocation (BHM)	Design Construction
Relocate Utility Mains (BHM)	For Taxiway A Realignment
Village Creek Relocation (BHM)	Relocation/mitigation for Taxiway A Realignment
Air Cargo Avenue Realignment (BHM)	Relocation by 50 feet to the south
Runway 5-23 Rehabilitation (EKY)	Design Construction
New Entrance Road (EKY)	Relocation due to Runway Protection Zone

Map of Roadway Projects

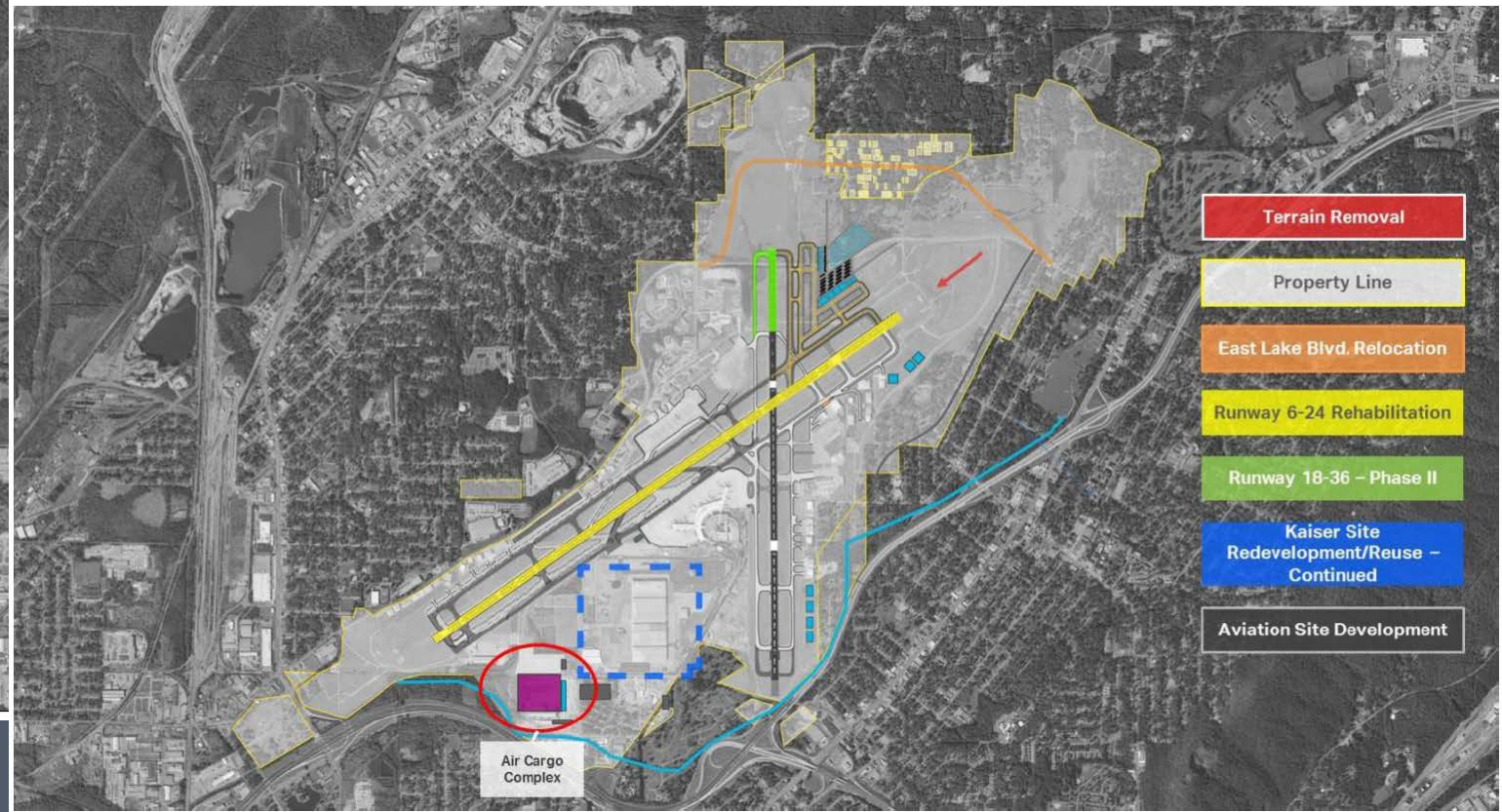


Example of Airport Projects

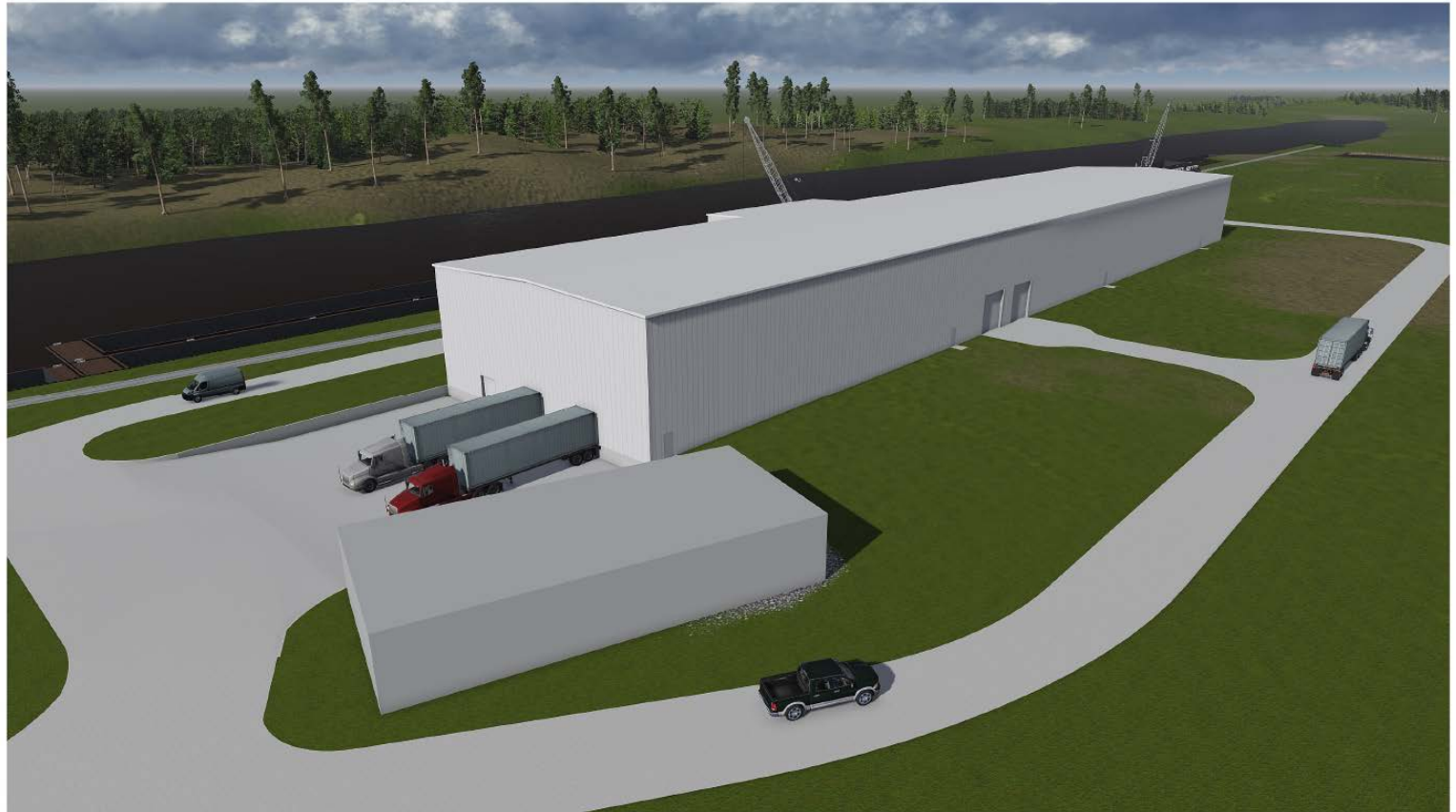
SHORT-TERM DEVELOPMENT PLAN

INTERMEDIATE-TERM DEVELOPMENT PLAN

LONG-TERM DEVELOPMENT PLAN



Example of Port Projects



This rendering is an artistic representation of the proposed building. Variations in scope of work, color, building materials, grading, etc.. may impact actual constructed appearance.

Available Funding Programs

Funding Program	Level	Project Eligibility	Funding Level/Type	Frequency/Term Limit
National Freight Program	Federal	Roadways on the National Highway Freight Network & Intermodal Facilities	\$121.5 M of the \$4B from the FAST Act	Five year program (FY 2016-2010)
INFRA Grants (formerly FASTLANE)	Federal	Focus on projects with significant local investments which are ready for construction	\$4.5 billion	Five year program (FY 2016-2020)
BUILD Grants (formerly TIGER)	Federal	Projects with significant local or regional impact (roads, bridges, transit, rail, ports, intermodal)	\$1.5 billion	Annual
ATCMTD	Federal	Model deployment sites for large scale installation and operation of advanced transportation technologies	\$60 million per year	Five year program (FY 2016-2020)
TIFIA	Federal	Large scale surface transportation projects – state/local governments, transit agencies, and private entities are all eligible to apply	Credit assistance up to 33% of eligible costs, up to \$300 million annually	Five year authorization (FY 2016-2020)
SIB	State	Highway and transportation facilities necessary for public purpose, cost must exceed \$5 million	\$46 million/year (variable)	Annual
Fuel Tax	Federal/ State/Local	Roadway maintenance and improvement	Varies	Annual
Alabama Reinvestment Incentives for Existing Companies	State	Qualifying industrial expansions investing at least \$2 million	Variable – Tax abatements and utility tax credits	Up to 20 years
Jobs and Investment Credits for Qualifying New or Expanding Industrial Projects	State	At least 50 jobs	Variable – Annual credits for capital investments and cash payments for payroll	Up to 10 years
ALDOT Industrial Access Funds	State	Must provide public access to new or expanding distribution, manufacturing, and industrial firms		
Alabama Renewal Act: Port Credit	State	Increased usage of Alabama public ports	\$50/TEU, \$3/net ton, \$0.04/net kg	Up to 5 years
SBA 504 Program	Local	For eligible small businesses, acquisition, construction, expansion, or renovation of land and buildings or purchase of long-life equipment	Long-term fixed asset financing	
SBA 7a Program	Local	For eligible small businesses, proceeds can be used for debt consolidation, business acquisition, purchase of machinery or real estate, and leasehold improvements	Loan guarantees for commercial loans	
Birmingham Business Development Loan Program	Local	For Birmingham based businesses, an alternative option for small business financing	\$100,000 to \$1M	Maximum term of 24 months
EDA Revolving Loan Fund Program	Local	For businesses within the City of Birmingham to be used for the purchase of land, buildings, machinery, equipment, and expansion	Direct loans	
Industrial Revenue Bond Financing	Local	For the acquisition of real property, construction or renovation of facilities, or the purchase of equipment and machinery	Bond issue for financing	
Community Development Float Loan	Local	For City of Birmingham qualified projects of real estate acquisition, renovation, and construction	Low interest financing from \$100,000 to \$1M	Maximum term of 30 months

Strategies Guiding Recommendations

➔ **Establish and Enrich Partnerships and Process**

- » Identify and engage public and private partners and to provide those partners with the opportunity to provide regular input to the program
- » Processes must be developed and adopted to ensure the freight program is integrated into RPCGB's transportation program

➔ **Seize Economic Development Opportunities**

- » Business retention and attraction programs market access to/from/within the region
- » An established freight program positions the region to seize opportunities

Strategies Guiding Recommendations

➤ **Perform Planning and Feasibility Studies**

- » An active and ongoing freight program includes planning and feasibility related initiatives to help identify best practices, new opportunities, and investment strategies

➤ **Program and Fund Improvements**

- » A variety of funding sources exist with a range of eligibility requirements
- » Understanding and pursuing available funding is a key component to an active and successful freight program

Recommendations by Strategy

Establish and Enrich Partnerships and Process	Seize Economic Development Opportunities	Perform Planning Studies and Environmental Reviews	Program and Fund Improvements
<p>(#1) Establish protocols for ongoing FTAC, including membership, role, meeting frequency</p>	<p>(#7) Identify lands suitable for industrial park development</p>	<p>(#12) Develop at-grade crossing inventory with ranking related to needed improvements</p>	<p>(#17) Identify and pursue available transportation and economic development grant programs</p>
<p>(#2) Incorporate freight considerations into smart growth and complete streets planning</p>	<p>(#8) Conduct market feasibility study to support Port Birmingham development</p>	<p>(#13) Designate key truck routes/network for Birmingham region</p>	
<p>(#3) Understand the freight transportation needs of the region's legacy and emerging economic sectors and incorporate those needs into economic development strategy</p>	<p>(#9) Evaluate opportunities for brownfield redevelopment for industrial use</p>	<p>(#14) Conduct truck parking study to identify unmet parking demand</p>	
<p>(#4) Develop repository of public data on freight and economic indicators for the region</p>	<p>(#10) Develop marketing brochure and/or other media to promote Birmingham's industrial and freight capacity</p>	<p>(#15) Develop an urban goods movement strategy</p>	
<p>(#5) Monitor performance based on key measures</p>	<p>(#11) Partner with economic development community to market the region</p>	<p>(#16) On an ongoing basis, evaluate emerging supply chain and transportation technologies that could impact use of infrastructure in the future</p>	
<p>(#6) Coordinate with industry and educators to address workforce development issues and to supply the economy with skilled and prepared workers</p>			

Introduction to Recommendations

- ***#1 - Establish protocols for ongoing FTAC, including membership, role, meeting frequency***
 - » Maintain the group's momentum to provide input on implementation initiatives, identify and describe emerging needs and issues as they arise, and ensure freight is addressed in the Regional Transportation Plan

- ***#2 - Incorporate freight considerations into smart growth and complete streets planning***
 - » Communities are focused on quality of life considerations (e.g., safe, walkable/bikeable neighborhoods), traffic calming strategies often reduce truck access to commercial and retail locations, and freight needs should also be considered

- ***#3 - Understand freight transportation needs of the region's legacy and emerging economic sectors and incorporate those needs into economic development strategy***
 - » Commodities moved and modes and routes used vary company-by-company and industry sector-by-sector; the region's decision-makers should understand how the region's economy is likely to change and what the impacts will be to freight travel

Introduction to Recommendations

- ***#4 - Develop repository of public data on freight and economic indicators for the region***
 - » Access to freight and economic data provides regional stakeholders with information about key trends and patterns
- ***#5 - Monitor performance based on key measures***
 - » FAST Act requires states monitor freight system performance; performance indicators also help inform the region on system reliability, hotspots, and chokepoints
- ***#6 - Coordinate with industry and educators to address workforce development issues and to supply the economy with skilled and prepared workers***
 - » Incorporating educational opportunities into the region's freight program will help promote and expand opportunities for growth

Introduction to Recommendations

➤ **#7 - Identify lands suitable for industrial park development**

- » Finding and securing additional lands for new industrial park development is a significant challenge; establishing new locations provides additional tools to attract new business to the region

➤ **#8 - Conduct market feasibility study to support Port Birmingham development**

- » Port Birmingham is exploring new market opportunities and a market feasibility study at a regional level would help identify opportunities and promote the port's capabilities

➤ **#9 - Evaluate opportunities for brownfield redevelopment for industrial use**

- » The greater Birmingham region is home to a significant number of vacant properties that have not been redeveloped due to their classification as brownfield sites; with the current pro-business environment, the region should look for innovative ways to re-use the brownfield sites

Introduction to Recommendations

- ➔ ***#10 - Develop marketing brochure and/or other media to promote Birmingham's industrial and freight capacity***
 - » A key part of a regional freight program is to “tell the freight story”; use of brochures, websites, email blasts, and other tools can help a region tell its story as part of business attraction and retention programs

- ➔ ***#11 - Partner with economic development community to market the region***
 - » An ongoing campaign by the business community to market the region as a “great place to live and raise a family” will support future growth

- ➔ ***#12 - Develop at-grade crossing inventory with ranking related to needed improvements***
 - » The region’s dense rail network creates a large number of at-grade rail crossings; understanding the operation of these crossings (e.g., delay, safety) will help the region prioritize improvements that minimize the conflicts between rail and vehicle

Introduction to Recommendations

- **#13 - Designate key truck routes/network for Birmingham region**
 - » Designation of dedicated truck routes helps ensure safe and efficient access to freight activity centers and regional freight mobility and to help the region minimize the conflict between trucks and other system users

- **#14 - Conduct truck parking study to identify unmet parking demand**
 - » Truck parking capacity, or lack thereof, is a key industry concern at the national level. With the electronic log book requirement now in place and an ongoing truck driver shortage, conveniently located and affordable truck parking is a critical need. Understanding the magnitude of the truck parking shortage in the Birmingham region is the first step in addressing the problem.

- **#15 - Develop an urban goods movement strategy**
 - » Urban areas/downtowns rely on efficient truck movements to receive goods and services as retail locations, restaurants, hotels and other businesses rely on deliveries and pickups during regular business hours on a daily basis. Trucks often struggle to find available and adequate loading/unloading zones. An effective urban goods movement strategy will help identify and evaluate community needs and define mitigation activities to manage traffic.

Introduction to Recommendations

➔ **#16 - On an ongoing basis, evaluate emerging supply chain and transportation technologies that could impact use of infrastructure in the future**

- » Technological innovations are streamlining supply chains, and improving the efficiency and safety of freight transportation, with accelerating speed. Autonomous and connected trucks, driverless delivery drones, and other developments are on the immediate horizon, and some of these technologies are being tested and deployed in some supply chains today. Between now and the next update of the Regional Freight Plan, new technologies will emerge, and begin entering the industry.

➔ **#17 - Identify and pursue available transportation and economic development grant programs**

- » The federal government provides a variety of competitive grant programs to fund freight related infrastructure. The INFRA Grant, the BUILD Grant, and the Advanced Transportation and Congestion Management Technologies Deployment (ACTMTD) Grant programs are recent examples of opportunities. Actively pursuing grants, especially as part of public-private partnerships, can help a region accelerate key infrastructure projects.

Ranking of Recommendations

- Which recommendations do you think
 - » Should be advanced first?
 - » Have the best short term viability?
 - » Will have the biggest impact?
- You each have 5 stickers to allocate to the 17 recommendations to help assign priorities
 - » One stick per recommendation; we want to see your top 5!
- Top recommendations will be reviewed by RPC staff to determine next steps

Discuss and Recommend Priorities

- What are the top 5?
- Do they make sense?
- Are we comfortable making these recommendations to the RPCGB?

Ongoing/Future Role of FTAC

Why is an FTAC Important?

- Provides voice for industry
- Helps identify needs and priorities
- Ensures transportation system is balanced
- Supports national focus on freight
- Supports state freight plan and program
- Helps protect and preserve industrial property
- Promotes education and community outreach
-

Ongoing/Future Role of FTAC

How Should RPCGB Proceed?

- Formalize leadership and charter?
- Lead key initiatives?
- Regular meetings (quarterly? biannually? annually?)?
- Oversight and advisory role for key initiatives?
- Review and comment on draft RTP material?

Wrap Up

THANK YOU for your time and contributions to the development of the region's first Freight Plan!

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