MOBILE INTERMODAL & MULTIMODAL FREIGHT EFFICIENCY PROJECT

MOBILE, ALABAMA

FY 2021 US DOT Transportation Demonstration Program

Grant Application

Project Narrative

Submitted by:

Mobile Airport Authority (MAA)

&

Alabama State Port Authority (ASPA)

Mobile Airport Authority

June 23,2021

The Honorable Pete Buttigieg
Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Mr. Secretary:

The Mobile Airport Authority (MAA) and the Alabama State Port Authority (ASPA) are pleased to jointly submit this grant application for the FY 2021 USDOT Transportation Demonstration Program (FON DTOS59-RA-TDPFY2021).

We have worked collaboratively across our shared border and with our many local, regional, national, and international stakeholders to develop an overall development program that increases the efficiency of freight movements by air, by rail, by highway, and by water. Those efficiency improvements will lead to improved business competitiveness throughout much of the U.S. by expanding intermodal and multimodal freight logistics options for shippers, manufacturers, and consumers.

The Mobile Airport Authority plans to replace the existing airline terminal at the Downtown Mobile Airport at the Brookley Aeroplex with a modern and expanded facility, immediately adjacent to the Port Authority's Logistics Park, Intermodal Rail Facility, and the nearby Port Authority Container Terminal. The intent is for commercial air service to utilize the Downtown Airport, closer to air service users, both freight and passenger, and enhance the growing industrial/commercial hub which Brookley Aeroplex has become.

The expanded Aeroplex airline terminal will bring additional commercial air service and additional air freight capacity to the downtown Mobile Airport. This new freight capacity will add to the existing air freight movements by Airbus, DHL, FedEx and Delta and will be extremely valuable to e-commerce delivery networks throughout the Southeastern US.

Key to this grant, the additional air freight capacity will complement the movement of containerized goods through the Port of Mobile, its Intermodal Rail facility and its adjacent Logistics Park. The Alabama State Port Authority plans to construct an inter-terminal connector bridge and raise elevation of Authority owned logistics park properties adjacent to Choctaw Point. The Port Authority's intent is to infuse resiliency against sea level rise and reduce carbon emissions. The Port Authority's inter-terminal connector bridge is shovel ready, and a

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significant portion of the logistics park has completed National Environmental Policy Act (NEPA) review with associated mitigation also completed.

Likewise, the grant will fund multimodal operational efficiencies that will generate significant reductions in the cost of moving containerized goods through the entire national and regional supply chains

The Mobile Airport Authority and the Alabama State Port Authority have a solid history of addressing climate change, environmental justice, and have been positive instruments for providing employment opportunities for low income and minority communities and for working with organized labor in accordance with state and federal law.

If accepted, this grant will not only accelerate several long-planned transportation initiatives by the Mobile Airport Authority and the Alabama State Port Authority, but it will also demonstrate the value of multimodal and intermodal synergies that will benefit much of the U.S.

Sincerely

John C. Driscoll
Director & Chief Executive Officer
Alabama State Port Authority

Chris Curry, C.M.
President
Mobile Airport Authority

C: Shira Bergstein, U.S. Department of Transportation

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SUPPORTING DOCUMENTATION

Supporting Documentation for this grant application, including proof of eligibility, cost estimates, and Letters of Support, are available at: http://www.asdd.com/aspa_demo/

I. APPLICANT ELIGIBILITY

This 2021 Transportation Demonstration Program Grant Application for the Mobile Intermodal & Multimodal Freight Efficiency Project (the Project) is being jointly submitted by the Alabama State Port Authority (ASPA) – the owners of the public seaport terminals within the Port of Mobile – and the Mobile Airport Authority (MAA) – the owners of the Brookley Downtown Airport.

A. GEOGRAPHIC BOUNDARIES

Figure 1 illustrates that the airport and the maritime port authority boundaries are immediately adjacent to each other, sharing a common boundary, and well within the ten-mile proximity criterion established in the FY 21 Appropriations Act and Section C of the Transportation Demonstration Program Grant's Notice of Funding Opportunity.

Figure 1: Port of Mobile and Brookley Downtown Airport

i. Alabama State Port Authority (ASPA)

The Alabama State Port Authority (ASPA), pursuant to Alabama Code Title 33-1-12, has the power to engage in improvement, promotion, development, construction, maintenance and operations of the harbors, terminal railways, seaports and riverports within the State of Alabama and its jurisdiction. ASPA owns or operates 35 marine terminals, an intermodal container rail yard, and is developing a Logistics Park on ASPA property.

ASPA is currently planning to further expand its container capacity from approximately 650,000 TEU to 1.0 million TEU by 2025, and ultimately to 1.8 million TEU. ASPA is also planning to reduce port-wide energy consumption, and to assist in the development of a rail-served intermodal container terminal in the Montgomery, Alabama region.

With sustained growth in the import and export of containerized, bulk, and special/heavy lift cargoes, ASPA has supported significant economic growth throughout the Southeast, including automotive, agricultural, aeronautic, and consumer industries.

ii. Mobile Airport Authority (MAA)

The Mobile Airport Authority (MAA) owns and operates Mobile Regional Airport (MOB), Mobile Downtown Airport (BFM), and the Brookley Aeroplex generating $1.8 Billion in economic value for the state of Alabama. Governance is provided under the jurisdiction of the Mobile Airport Authority Board, which is made up of five individuals, three of whom serve as officers (the chairman, vice-chairman/treasurer, and secretary). Each board member is appointed by the mayor of Mobile and confirmed by the city council for a term of six years.

MOB is a public/military airport located 13 miles west of Mobile and is categorized as a primary commercial service Airport in the National Plan of Integrated Airport Systems. The Airport is home to U.S. Coast Guard Aviation Training Center and Airbus Space and Defense. Delta Airlines, American Airlines, and United Airlines also serve the Mobile Regional Airport, providing direct service to four major hubs: Atlanta, Dallas, Charlotte, and Houston.

BFM is classified as a Regional General Aviation Non-Primary airport under the FAA National Plan of Integrated Airport System (NPIAS). BFM is situated along the Mobile Bay, four miles from Downtown Mobile, abuts the Port of Mobile and is located next to Interstate 10 and 3 miles from Interstate 65. The unparalleled geographical location supports the Authority's multimodal ability to bring maritime, rail, trucking, and aviation together in one location.

The entire airport property, which includes aviation and non-aeronautical uses, encompasses 1,688 acres and is home to the "Mobile Aeroplex at Brookley," a vibrant and growing mixed-use commercial/industrial development complex. The complex is home to many aerospace industries and features direct connections with Mobile Bay via its own docks, CSX railway, and with Interstate 10. The Aeroplex serves as home to Airbus Final Assembly Line, Airbus Engineering, ST Aerospace, and Continental Motors. It is included in Mobile's Foreign Trade Zone 82, a zone that provides special customs procedures to U.S. plants engaged in international trade-related activities.

B. Railway Jurisdiction and Documentation

ASPA owns and operates its own terminal and switching railroad called Terminal Railway Alabama State Docks (TASD). This Class III railroad provides switching services for five Class I railroads and three regional railroads. FRA categorizes TASD as a "Switching and Terminal" Railroad and makes TASD operational and safety data available to the public on its website[1]. A search for either Terminal Railway Alabama State Docks or TASD safety data on this site will verify compliance with the terminal rail criterion established in the FY 21 Appropriations Act and Section C of the Notice of Funding Opportunity.

C. Former Military Airport Documentation

What is now the site of BFM was established as a municipal airport in 1917, and in 1929 was renamed Bates Field. Commercial airline service with Eastern Airlines began in 1934. The U.S. Government acquired the airport site in 1940 for its Southeast Air Depot. Commercial airline service terminated in 1941, and in 1947 the airport was renamed Brookley Air Force Base.

In 1969, Brookley Air Force Base closed, resulting in almost 10 percent of the local Mobile labor force losing their employment. In 1982, the Mobile Airport Authority was designated as owner and operator of Brookley Downtown Airport, Brookley Industrial Complex and the Mobile Municipal Airport (Regional).[2]

During the 2019-2023 period, BFM is classified as a regional general aviation non-primary airport under the FAA national plan of integrated airport system (NPIAS)[3]. BFM is located just to the south, and adjacent to the Mobile ASPA properties. The Airport is immediately adjacent and east of Interstate I-10, and approximately 3 miles to the east of Interstate I-65. Both highways are major national highway corridors connecting Mobile to the western U.S., east to Florida and north to Georgia, the Midwest and Northeast United States. The Airport has its own dock facilities on the Mobile River that service the Mobile Brookley Aeroplex. Major national railroads and the Terminal Railway (TASD), owned and operated by the ASPA, are adjacent to and/or service the Airport property.

The above documentation of BFM as a former military airport, as a general aviation airport in the NPAIS FY 2019 to 2023, and at a location not more than ten miles from a maritime port authority that uses a terminal railway is provided to verify compliance with the former military airport criterion established in the FY 21 Appropriations Act and Section C of the Notice of Funding Opportunity.

[1] Accident Data as Reported by Railroads
[2] BFM Deed Transfer Document
[3] National Plan of Integrated Airport Systems, 2021-2025, Appendix A, 30 September 2020 (faa.gov)

II. PROJECT LOCATION

i. ASPA

The Port of Mobile, Alabama is located in the Mobile Metropolitan Area, along the Mobile River Channel and Theodore Ship Channel, the two federal shipping channels constructed at 45 ft. and 40 ft. depths respectively and with no air draft restrictions. The seaport site location is approximately three hours from the open ocean, at Latitude: 30° 42' 43.81" N; Longitude: -88° 02' 35.92" W. The Port of Mobile has direct access to five Class I railroads, three regional railroads, two Interstate systems (I-10 and I-65), 1,200 miles of inland and intracoastal waterways serving the Great Lakes, the Ohio and Tennessee river valleys (via the Tennessee-Tombigbee Waterway), and the Gulf of Mexico. ASPA, in collaboration with Mobile District, USACE, is dredging the existing shipping channel to 500' wide and provide 50' dredge depth by 2025.

The Project will serve the Port's Choctaw Point Complex, which consists of three inter-related components: (1) APM Mobile Container Terminal, (2) the Rail Intermodal Container Transfer Facility (ICTF); and (3) the Logistics Park.

Interstate Highway I-165 connects right outside the main port's gates, with I-10 less than one mile away. The Port's Choctaw Point Complex is adjacent to I-10 and is less than five miles from the I-65/I-10 interchange. These two interstate highways converge in Mobile, with I-10 extending east to Jacksonville, Fla. and west to Los Angeles, Calif., while I-65 extends from Mobile north to the Chicago region. The Port's connection to the Interstates is shown in Figure 2. The Mobile area is served by eight railroads, five of them Class-I railroads — Burlington Northern, Norfolk Southern, CSX, Canadian National Railroad, and Kansas City Southern. These railroads converge at the Port of Mobile through the Terminal Railway (TASD), which is owned and operated by ASPA.

The Port and BFM are both located in the Census-Designated Urbanized Area of Mobile, Alabama. Both are also located in federal Opportunity Zones.

Mobile County had an estimated 2019 population of 413,210, up slightly from 412,992 as of the 2010 United States Census[4]. Although the Port of Mobile is in an Urbanized Area, the economic impact of its operations extends well beyond the Mobile metropolitan area, with a Total Economic Value of $26.8 billion attributed to the Port[5].

ii. MAA

Mobile Downtown Airport (BFM) is located within the Mobile Metropolitan Area and along the Mobile River. BFM is four miles south of the City's downtown and on the site of the former Brookley Air Force Base. The airport's unique Federal Aviation Administration (FAA) identifier is KBFM, and the airport elevation is 26.2 feet above mean sea level (MSL). The entire airport

[4] Mobile County Census
[5] Martin Associates, Inc. 2019 Economic Impact Assessment

property, which includes aviation and non-aeronautical uses, encompasses 1,688 acres and is home to the Mobile Aeroplex at Brookley, a mixed-use industrial area.

BFM is located just to the south, and immediately adjacent to the Mobile ASPA properties. The Airport is immediately adjacent and east of Interstate I-10, and approximately three miles to the east of Interstate I-65. Both highways are major national highway corridors connecting Mobile to the western U.S., east to Florida and north to Georgia, the Midwest and Northeast United States. The Airport has its own commercial barge dock facility on the Arlington Channel, which intersects with the Mobile Ship Channel. This barge dock services the Mobile Brookley Aeroplex. Two Class I railroads and the Terminal Railway (TASD), owned and operated by the Alabama State Port Authority, service the Airport property at Brookley.

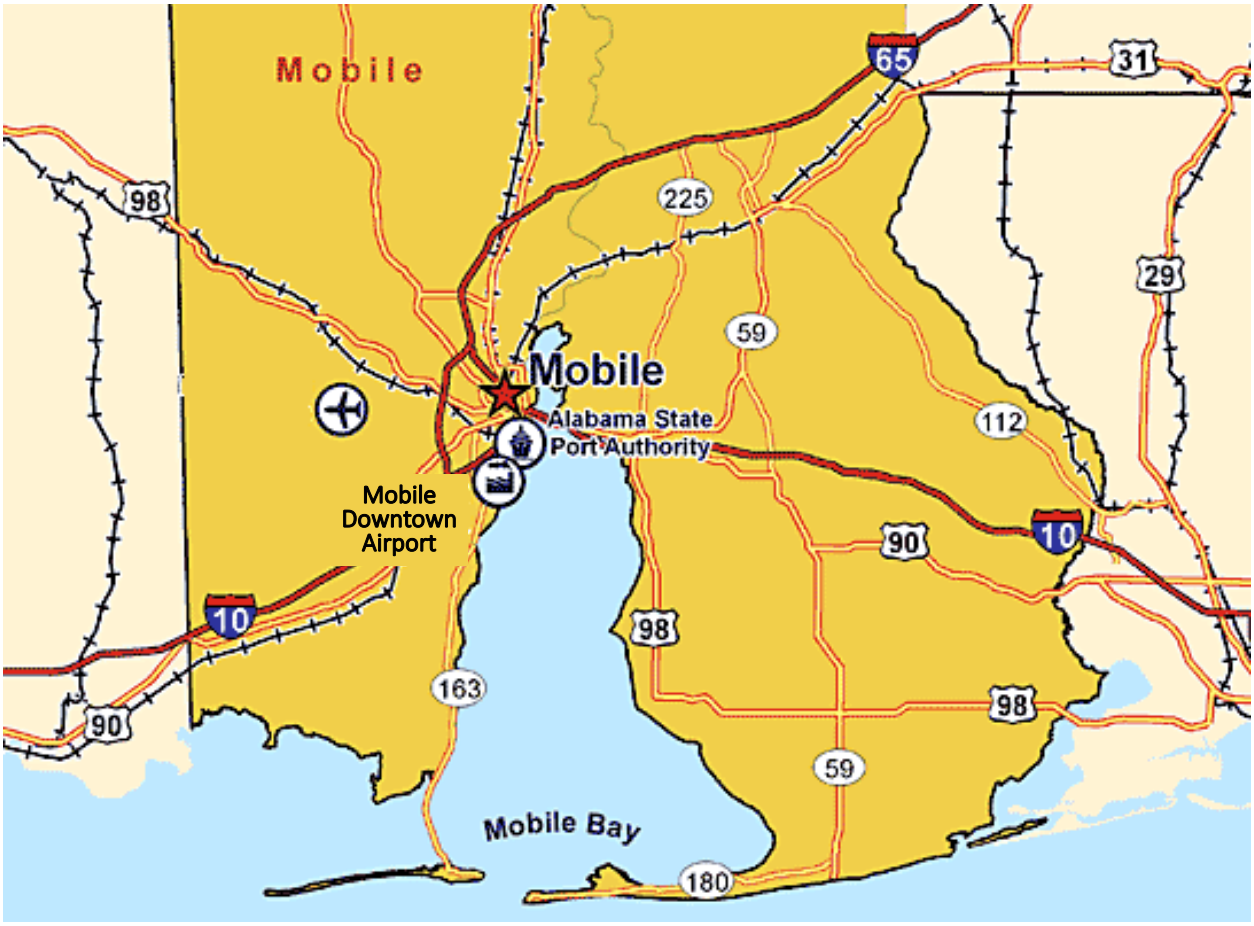


Figure 2: Port of Mobile and Mobile Downtown Airport

III. PROJECT DESCRIPTION

A. ASPA PROJECT COMPONENTS

i. Inter-Terminal Connector

The ASPA Choctaw Point Complex is comprised of a marine container terminal, an Intermodal Container Transfer Facility (ICTF), and a Logistics Park. In September 2008, APM Terminals (APMT), in partnership with the ASPA, opened a state-of-the-art container terminal serving Post-Panamax carriers at the Port of Mobile. Since 2008, Mobile's container terminal has expanded three times (with Phase 4 planning underway) and its annual container volumes have sustained year over year growth from 112,204 TEUs in 2008 to 424,473 TEUs[6] in 2020 and are targeted to exceed 500,000 TEUs by year-end 2021. Between 2015 and 2020, ASPA container volumes grew by 86.8%. In 2012, the Authority authorized Phase I construction of the ICTF with an intermodal rail ramp accessible to the Terminal Railway (TASD) and five Class I railroads. Rounding out the intermodal development is a Logistics Park.

The Inter-Terminal Connector will allow cargoes to move securely among the container terminal, ICTF, and Logistics Park using low emission electric vehicles. This will significantly reduce the drayage miles travelled on public streets by predominantly diesel-powered trucks, as well as providing a longer-term opportunity for immediate and direct transfer of a container from an ocean vessel to a specific location on a specific train within the ICTF or to a specific warehouse within the Logistics Park. **All of these moves will occur within a secure envelope and, when economically and operationally feasible, using electric vehicles.**

The 140-acre APMT container terminal is a two-berth container terminal capable of handling Post-Panamax vessels. When expansion to the north and conversion to RTG operation is completed in approximately 2025, it will have an annual capacity of at least one million Twenty Foot Equivalent Units (TEUs). A further expansion to approximately 1.5 million TEU is projected to occur in approximately 2030 (see Figure 12). Ultimate buildout to 1.8 million TEU is projected to occur at some point in the next decade. The ICTF provides APMT with an efficient means of transferring international import and export containers to and from the five Class 1 railroads serving Mobile. This enables APMT to serve regions in the Southeast and Midwest more cost-effectively, as compared to serving them with truck drayage. The Inter-Terminal Connector will improve container operations by providing a secure, dedicated, potentially zero emission connection among the APMT marine terminal, the ICTF rail facility, and the Logistics Park, as shown in Figure 3.

[6] TEU refers to a Twenty Foot Equivalent Unit and is a Standard unit for describing a container ship's cargo carrying capacity, or a shipping terminal's cargo handling capacity. A standard forty-foot (40x8x8 feet) container equals two TEUs (each 20x8x8 feet)

Figure 3: Proposed Inter-Terminal Connector Start-Up Condition

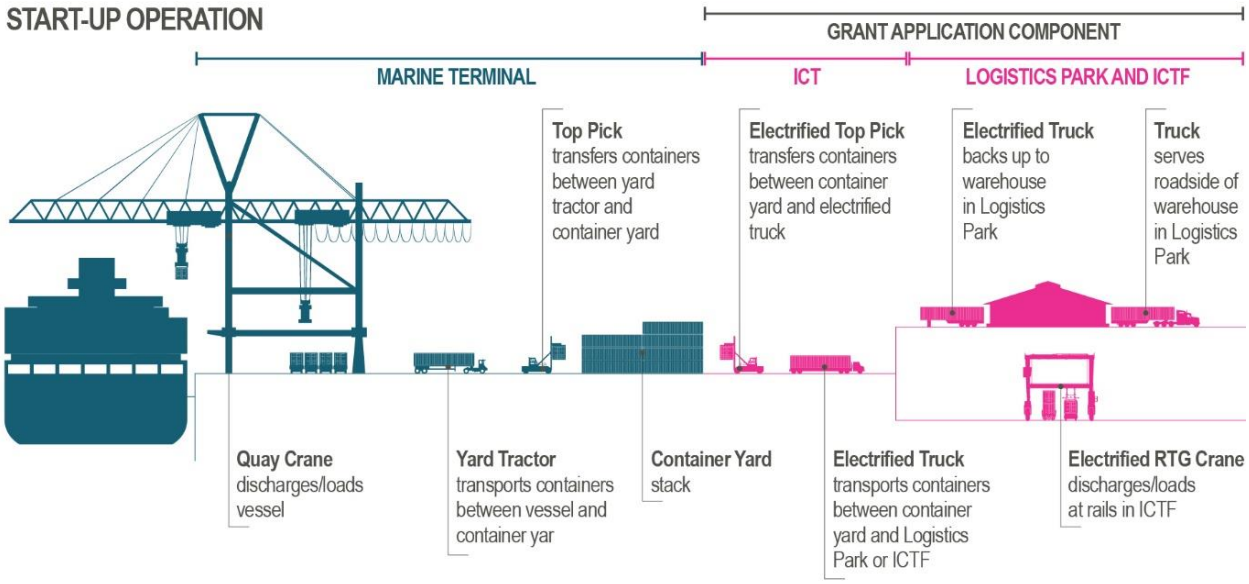


Figure 4: Proposed Inter-Terminal Connector Start-Up Condition

Exiting from APMT marine terminal, the 3,550-foot-long roadway flyover bridge crosses Ezra Trice Boulevard, Yeend Street, existing railroad tracks, and overhead electric lines, traverses Garrows Bend, and then crosses the Southern Drain before touching down at ICTF. Immediately after crossing the Southern Drain and just prior to meeting grade in the intermodal rail yard, there will be a signalized and elevated tee-intersection that will provide two-way direct access to the Logistics Park after passing through a security gate where credentials will be required.

The proposed Inter-Terminal Connector will be 36-feet wide with two 12-foot-wide travel lanes. There are two bridge structures, one 511-foot long and one 900-foot long. As currently envisioned, there are earth embankments through the Garrows Bend and at each end of the roadway to facilitate the grade transition, including MSE walls at the APMT terminus.

The long range ASPA plan and market projections will allow the Port of Mobile to further grow its marine terminal, rail intermodal, and Logistics Park capabilities. As shown in Figure 4, this ***future*** growth and facility expansion will be characterized and enhanced by:

- Once economically and operationally viable, the terminal will transition from electric trucks to all electric yard equipment, wharf and railyard cranes, and electrified/automated hostlers to securely transport import and export containers to and from an ocean vessel, a specific train location within the rail ICTF, and a specific warehouse location with the Logistics Park by 2030.
- An expanded container terminal able to accommodate up to 1.8 million TEUs.
- A fourfold expansion of the rail ICTF with nearly 20,000 linear feet of working track and nearly 27,000 square feet of storage track.

- A 120-acre Logistics Park with secure access to the rail ICTF and the container terminal, separate public access and airport access to the Logistics Park, with an additional 22 acres of expansion area immediately to the south of the Logistics Park.

The Inter-Terminal Connector has been through the National Environmental Policy Act (NEPA) review process as part of the U.S. Army Corps of Engineers Choctaw Point Environmental Impact Statement and has undergone a U.S. Department of Transportation Maritime Administration (MARAD) NEPA review. Preliminary design has been completed and an engineering consultant is on-board to advance the design and prepare bridging documents for a design-build procurement.

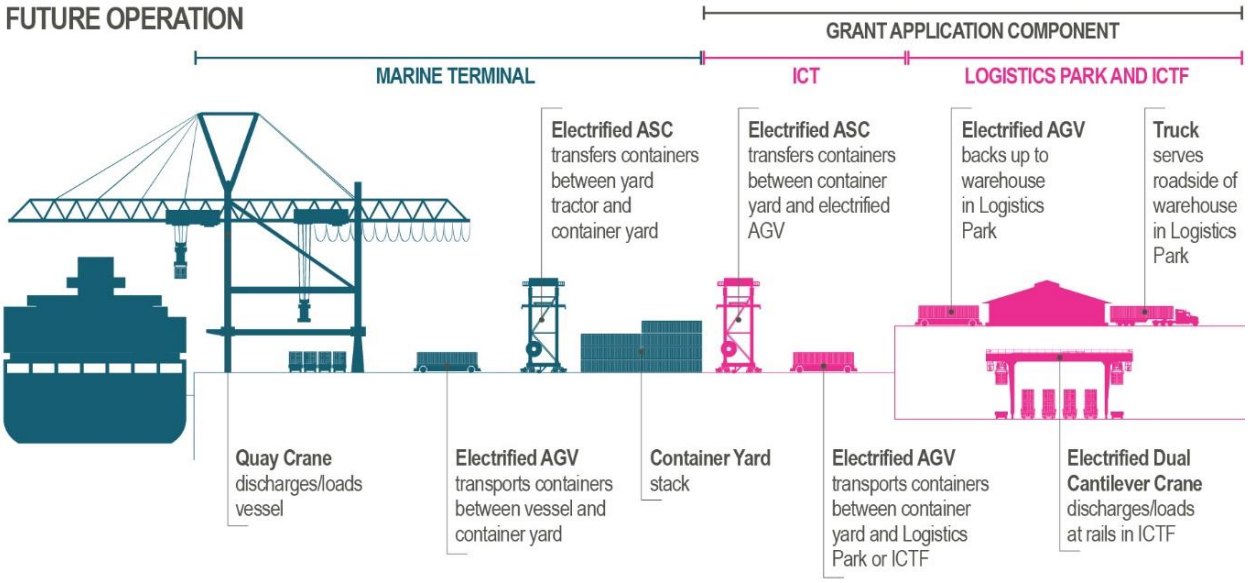


Figure 5: Proposed Inter-Terminal Connector Future Condition

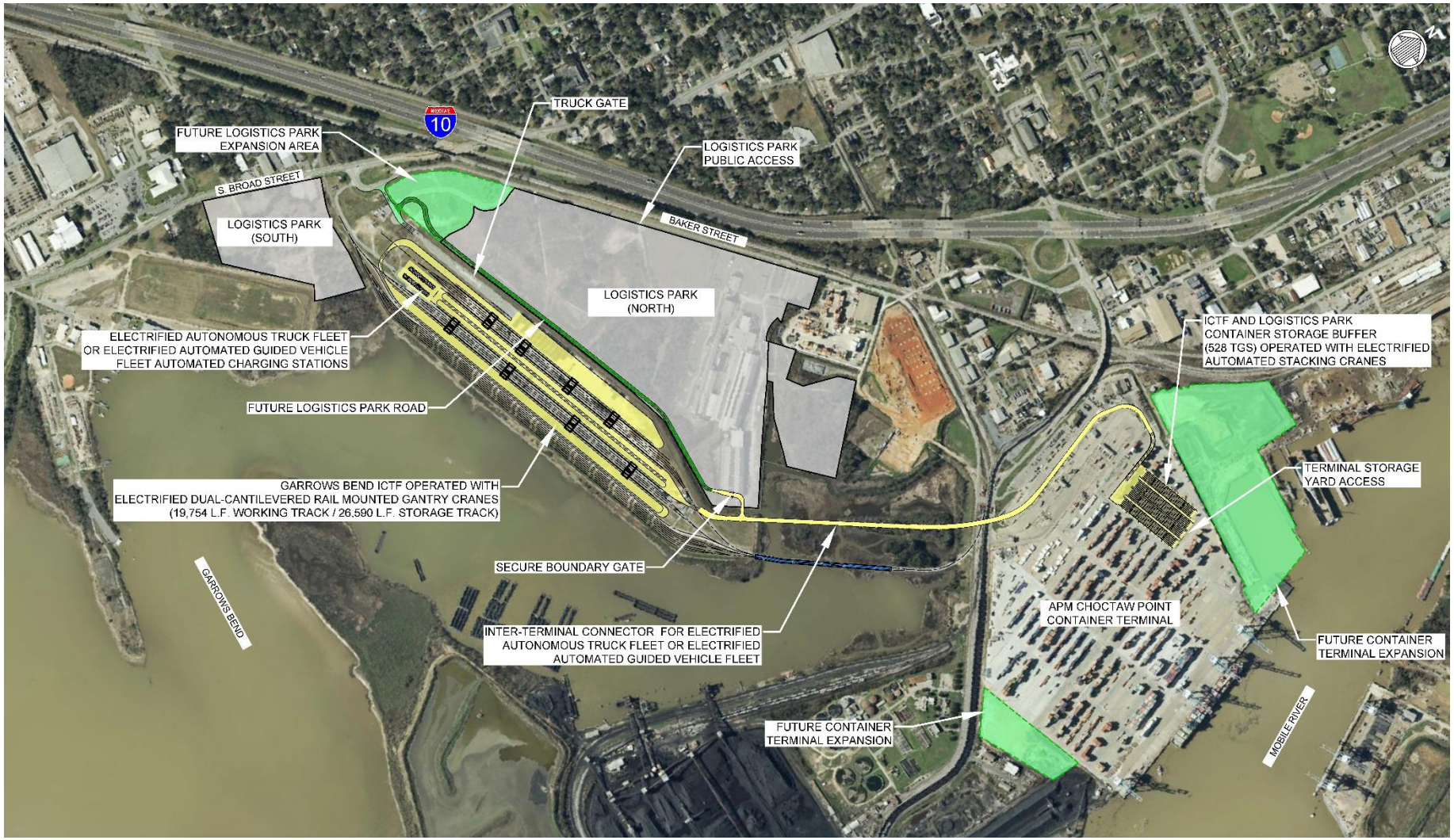


Figure 6: Proposed Inter-Terminal Connector Future Condition

i. Logistics Park Site Development & Market Efficiencies

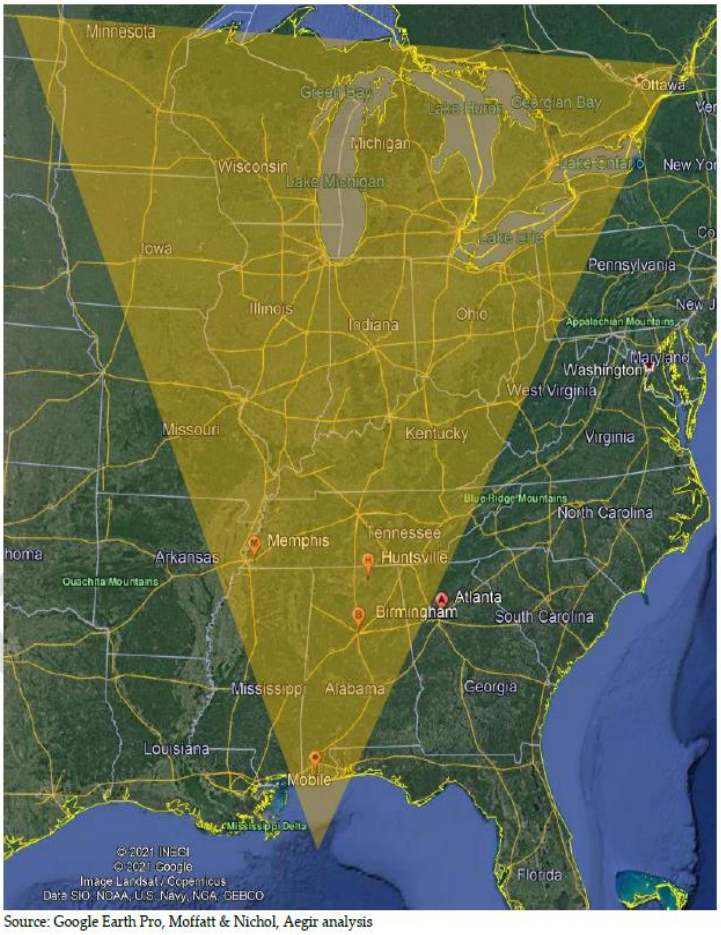
The development of distribution centers and warehousing adjacent to port, airport, and multimodal rail facilities has proven to be a winning formula for regional economic development, and the Port incorporated this strategy into its long-term planning beginning in the 1990's and formalized with its 2002-2004 Strategic Plan. The Logistics Park consists of two sites, one south and one north of the existing rail ICTF. While the Logistics Park currently hosts some limited commercial uses, significant site, civil, and utility improvements are necessary to meet the long-term goal of an integrated, intermodal seaport/airport/rail terminal network that efficiently and safely moves the full span of domestic and international cargoes.

The North area is bounded by Baker Street and I-10 to the northwest, Yeend Street to the northeast and is contiguous to the ICTF to the south and southwest. This area consists of approximately 120 acres.

The South area is bound by Broad Street to the northwest, the Brookley Downtown Airport to the south and is adjacent to the western limits of the ICTF. This area consists of approximately 22 acres and has direct access to Broad Street.

Site clearing, filling, and installation of civil infrastructure will be the first step in preparing the sites for construction of distribution centers, support services, and warehouses.

Proposed improvements to be covered by this demonstration grant includes: clearing and demolition; fill placement to raise site elevations two feet above the 100-year FEMA floodplain; installation of storm drains and water/fire protection loop; and construction of the Interterminal Connector into the site. Filling the site to a minimum elevation of +13 will provide resiliency against both storm surge flooding and microburst storms.



Source: Google Earth Pro, Moffatt & Nichol, Aegir analysis

Figure 7: Potential Mobile Logistics Park Catchment Area

Market Efficiencies

The value of logistics and warehousing facilities in close proximity to U.S. seaports has been demonstrated on all three coasts. The development of the Logistics Park will allow the Port of Mobile and, to a lesser extent, the

Downtown Mobile Airport to reduce intermodal and multimodal freight costs starting with southwestern Alabama, then with the manufacturing clusters in northern Alabama, then with the lower Mississippi region, and finally with the Midwest markets as far north as Chicago. The potential market reach of the Port of Mobile due to the Inter-Terminal Connector, the Logistics Park, and the adjacent Downtown Mobile air cargo synergies is represented in Figure 7.

While this concept has been part of the ASPA master plan since the 1990's, ASPA commissioned an independent review of the value of the Logistics Park in the current marketplace[7].

In view of ongoing port congestion, the need to support Alabama manufacturing, and the nationwide rise of e-commerce, the Logistics Park will play a key role in enhancing intermodal and multimodal freight connectivity and simultaneously increasing the efficiency and resiliency of local, regional, and national freight systems. The independent review concluded:

"From a potential market growth standpoint, the Logistics Park, coupled with its proximity to the Brookley Aeroplex, is poised to deliver cost-effective, reliable and efficient freight and intermodal cargo service for underserved logistics markets in the mid-South and Midwest regions of the United States and Canada. This cargo service is more environmentally conscious, utilizing air, sea, and rail infrastructure.

The proposed Logistics Park project is an infrastructure investment that promises to deliver an increasingly needed modern multimodal gateway for supply chains through mid-continental markets, produce major and environmentally sound intermodal efficiencies resulting in significant positive economic impacts and 'family sustaining' jobs creation locally, state-wide and throughout the supply chain reach.

In short, the proposed Alabama State Port Authority Logistics Park have every indication of being a major, regional (and even national) strategic logistics asset with wide scale positive ramifications for the U.S. economy."

Overall, the combined Connector and Logistics Park will significantly improve the competitiveness of the Port of Mobile's freight gateway and its ability to serve inland markets. This in turn will increase the number of viable choices for shippers and will improve the overall efficiency and resiliency of freight movement throughout the nation.

[7] Aegir Review of Proposed Alabama State Port Authority TDP Grant Application for the Proposed Logistics Park

ii. Vehicle Electrification Infrastructure

The construction of the Inter-Terminal Connector provides the opportunity to reduce both operating costs and emissions by providing a dedicated travel route off of public roads and converting diesel-powered cargo handling equipment to electric-powered equipment. Implementation would involve acquisition of:

- 12 new electric yard tractors to shuttle containers between the container yard to the ICTF/Logistics Park
- 2 new electric top-picks to handle the container storage buffer area in the container terminal that serves the ICTF/Logistics Park
- Electrical replacement or retrofit of 2 existing diesel RTG's to serve the ICTF working rail tracks
- Automated quick-connect stationary power and charging units combined with charging receptacle devices on the yard tractors

The improvements covered by this grant consist of the installation of electrical infrastructure to power and provide 12 charging stations to service the electrified yard tractors. The charging stations are planned for a location in the southeast corner of the ICTF. Figure 8 depicts the charging connection device that is mounted on the top of a truck cab, while Figure 9 depicts a typical electric power and charging unit.

Figure 9: Example of Electric Charging Connection Device

Figure 9: Example of Power and Charging Unit

A plan view of the project that illustrates where the electrified equipment will be deployed is presented previously in this application, in Figure 3.

B. MAA Project Components

i. New Terminal Project

The terminal project proposed for Mobile Downtown Airport (BFM) in Mobile consists of a new Airport Terminal as a replacement for and to be located in general vicinity of the existing terminal (Figure 10). The existing low-cost terminal is an extremely small facility that occupies just 22,000 square feet and has two passenger gates without jet bridges. The new terminal will provide the space necessary to build a Federal Inspection Services (FIS) to allow for the processing of international goods and passengers. It is anticipated that close proximity to the ASPA will allow shared Customs and Border facilities manpower. The new terminal will allow achievement of the airport's development goal which is to relocate commercial airline cargo and passenger service from remote Mobile Regional Airport to the closer-in downtown airport at Brookley Aeroplex (BFM).

The Mobile Downtown Airport (BFM) is much more centrally located to the center of population and airport user density than is the remote Regional Airport (MOB). In addition to the conveniences such a move would offer to BFM users, it would serve as a catalyst for the continued development and enhancement of the Brookley Aeroplex as a centralized logistics-based commercial and industrial zone. Bringing the commercial airline cargo and passenger activity to BFM adds to the efficiencies and conveniences for the Aeroplex users; it adds critical commercial aircraft belly capacity for cargo; it provides for improved cargo processing efficiencies with new FIS facilities at BFM; it adds to the growth and potential of critical mass commercial development and trade logistics at Brookley, Baldwin County, the adjacent Port and close by downtown Mobile.

The New Terminal project would consist of five passenger gates with jet bridges, allocated space for a new FIS for international cargo and passenger processing. Upon completion of the five-gate new terminal commercial airline service would be transferred from Regional (MOB) to the downtown airport (BFM). The low-cost terminal would be retrofitted to assist with related cargo processing and storage.

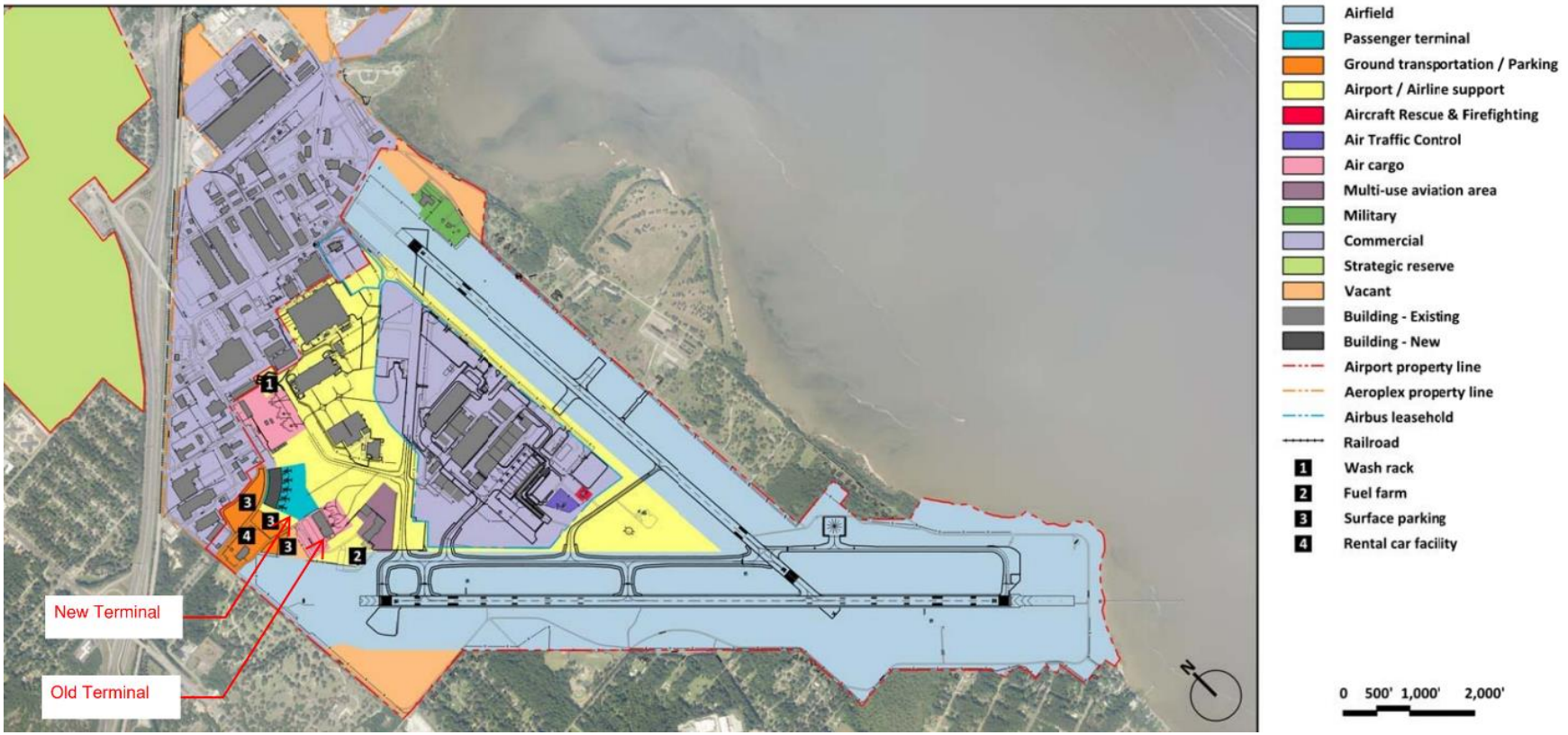


Figure 10: New MAA Terminal Conceptual Layout

C. Transportation Challenges

i. ASPA Seaport and Supply Chain Challenges

In its 2004 Master Plan and 2005 Final Environmental Impact Statement, ASPA laid out a long-range vision to continually improve the overall efficiency of cargo movements through the Port of Mobile. That 20-year plan focused on the efficiency of the entire supply chain with an emphasis on improving the competitiveness of Alabama and domestic industries served by both imports and exports through the Port. The Mobile Intermodal & Multimodal Freight Efficiency Project is the final stage of the original ASPA 20-year plan, as refined in its 2019 update[8]. Greater efficiencies resulting from these plans will lower total supply chain costs for shippers, receivers and benefitting industries and producers throughout the entire network.

ii. MAA Airport Challenges

The recently completed FAA approved 2020 Mobile Airport Authority Downtown Airport Master Plan established the goals, objectives, and tactics for the continued development of BFM as a critical component of Mobile as a multi-modal freight and passenger transportation logistics hub and integrated with the adjacent Port. Essential to achieving the goals is to consolidate commercial airline activities to get closer to the "customers" and to create a concentrated critical mass of airline and airport logistics infrastructure capacity, multimodal with increased efficiencies, both freight and passenger. Achieving such goals requires concentrating commercial airline operations at downtown BFM.

D. Transportation Solutions

i. ASPA Solutions

The ASPA portion of the Mobile Intermodal & Multimodal Freight Efficiency Project consists of three elements which will lead to increased efficiency of freight movement through the Port of Mobile and its intersecting supply chains. These elements are the subject of this demonstration grant request:

1. Inter-Terminal Connector (ITC)
2. Logistics Park Site Development
3. Vehicle Electrification Infrastructure

The Project will improve the Port's container operations by providing a dedicated connection between the container terminal and the Garrows Bend Intermodal Container Transfer Facility (ICTF) and the adjacent Logistics Park, allowing for usage of newer technology for the movement of cargo between and among the container terminal, the Logistic Park, and the rail intermodal facility while reducing the truck distances between the port and regional logistic centers.

[8] 2019 Master Plan Update

Without Project construction, containers destined for the ICTF would need to be removed from the storage stack (first point of rest after offloading from the vessel), placed on an over-the-road chassis and pulled to the ICTF or Logistics Park using terminal tractors licensed for off-terminal use, which would exit the terminal and travel over public roadways to reach the ICTF or Logistics Park. This method of operation would impose a higher cost to beneficial cargo owners compared to the With Project scenario where containers could be transferred directly from the container terminal, over the connector bridge, without leaving the gate or going through the public road system. Furthermore, by providing a closed system for transferring the cargo between or among the container terminal, the Logistics Park, and the ICTF, the Project would allow for the use of autonomous and/or electric trucks. This change in operations will create the following efficiencies in cargo movement between the Port's container terminals and the ICTF:

- Eliminate the need for truck moves originating or terminating in the ICTF to go through the main gate. This reduction will lead to reduced labor need at the gate as well as a shorter gate queue which would lead to lower emission and truck transportation costs.
- Reduce the number of vehicle-miles-traveled (VMT) by heavy trucks on the public road system and provide economic benefits in terms of reduced operating costs, net reduction in congestion, accidents, noise and pavement wear.
- Allow for operation of autonomous electric trucks to reduce the total emission of the container operation in Mobile and further reduce cargo handling costs, which could make the rail serviced area more competitive in the international markets.

The Project also reduces the distance between the container terminal and distribution centers by construction of a Logistic Park near the Port. The Logistics Park, which will be served through the Inter-Terminal Connector, will create additional efficiencies in freight movement by reducing the number of miles that import cargo travels in 40-foot containers. Generally, international containers are a mix of 20-foot and 40-foot containers, while domestic cargo is transported with a mix of 53-foot containers and trailers. As a rule of thumb, five 40-foot containers can be consolidated in three 53-foot containers (or trailers). By reducing the distance between the container terminal and warehousing and logistics area, the Project will reduce total truck miles travelled for service within the broader truck market by reducing the number of truck trips by about 40% for the reduced distance, as shown in Figure 11. This reduction in the number of truck trips would in turn translate into safety, noise, congestion, emission and transportation cost savings for the cargo. To better illustrate this benefit, in Figure 11, in the no-build case the distance from the container terminal and logistics center is equal to 2 miles and the distance from logistics center to the final market is also equal to 2 miles. In the build scenario, the distance from container terminal to logistic center will be reduced to 1 mile while the distance between logistics center and the final market will be increased to 3 miles. Truck miles for transferring five 40-foot containers to the final market are calculated as follow for the build and no build scenarios:

- No-Build: 5 x 2 + 3 x 2 = 16
- Build: 5 x 1 + 3 * 3 = 14

This reduction in truck miles between Build and No-Build cases, reflects a 40% reduction in truck miles travelled for the reduced distance. The distance between the logistics center and the container terminal is one mile shorted in the Build case compared to the No-Build case. In the No-Build case, five truck carry five 40-foot containers in that distance while in the build case three trucks carry the same cargo in three 53-foot containers.

In this illustrative example, bringing the logistics park to the container terminal has reduced the number of truck miles travelled to serve the final market. The *ASPA Trucking Distance Reduction Benefits* section of this document uses the same logic to calculate the impact of the proposed logistics park on reduction in truck miles travelled.

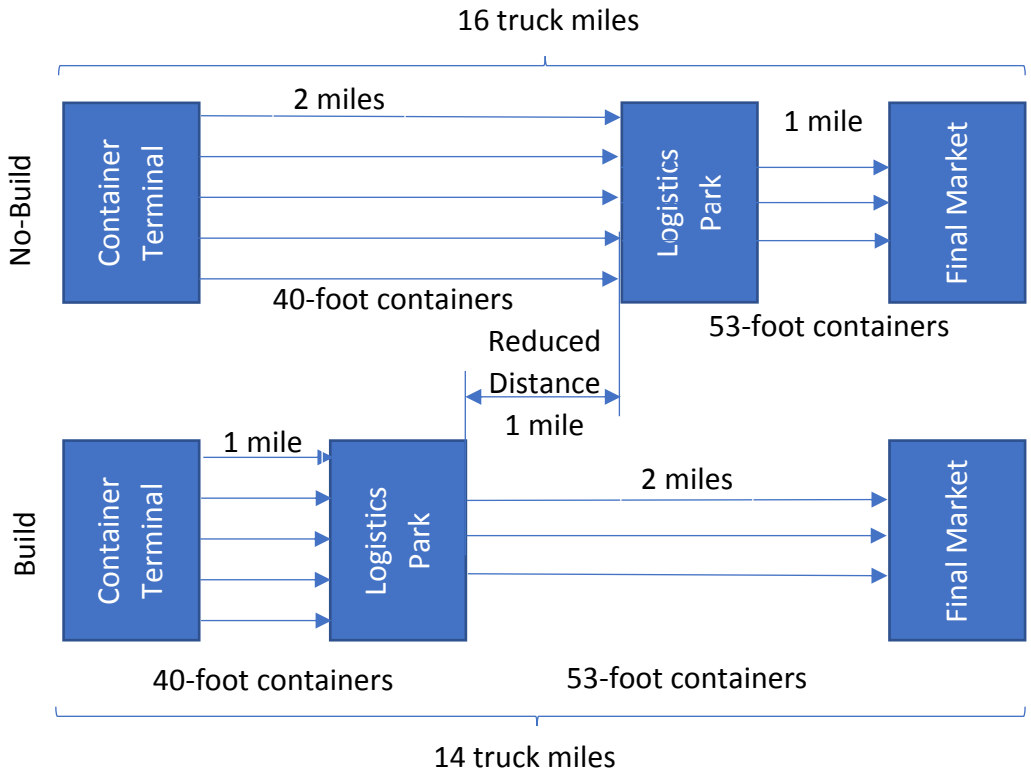


Figure 11: Reduced Total Truck Miles

Without the development of the Connector, containers offloaded from deep sea vessels would first be drayed from the berth and stored in the terminal (i.e., the first point of rest). For containers destined for the ICTF, they would need to be removed from the container yard, placed on over-the-road chassis and trucked to the ICTF using yard hostlers. These hostlers would have to be licensed for off-terminal use and would exit the terminal and travel over public roadways to reach the ICTF.

This operation method would impose higher costs to beneficial cargo owners compared with a build scenario where containers could be transferred directly from the quay-cranes to the ICTF and the Logistics Park. Construction of the Inter-Terminal Connector eliminates the double-

handling and storage of containers as well as the longer, over-the-road movements to reach the ICTF and the Logistics Park. Furthermore, providing this critical infrastructure link provides a pathway for implementation of first electric powered vehicles and ultimately self-driving transporters.

Without the Project, importers and exporters in the Port of Mobile's market area would face higher freight costs between the container terminal and the ICTF as well as the warehousing centers and broader market. These freight savings for shippers are an economic benefit resulting from the development of the Project. The freight savings would reduce the costs of US exports, making them more competitive in the global market, or they would reduce the cost of imported raw materials, goods and products resulting in an economic benefit to US consumers and producers, (creating consumer surplus) and in some cases reducing the cost of producing goods ultimately for export.

Quantified benefits of the Project are estimated to be about $86.6 million over a 30-year analysis horizon post construction. A detailed worksheet is accessible at the footnoted link.[9] If discounted to 2019, based on the latest USDOT BCA guideline, the discounted benefit of this project will be $39.07 million. This discounting reflects a 3% discount rate for carbon dioxide and 7% discount rate for all other benefits.

Detailed Project benefits are shown in Table 1. The Project's impact on reduction of gate queue is not quantified.

Table 1: Summary of Benefits

Category	Present Value (US$ Million)	Undiscounted (US$ Million)
Mobility Outcome	$11.06	$39.18
Economic Vitality	$17.89	$63.36
Safety Outcome	$5.45	$19.29
Environmental Sustainability Outcome	$4.68	$9.69
Total Benefit	**$39.07**	**$131.52**

ii. ASPA Benefit Assumptions and Calculations

ASPA Volume forecast

The benefit assessment uses the long-term volume forecast from the provided by ASPA as shown in Figure 12. While short-term port volumes are impacted by COVID-19, benefit assessment assumes that in the long-term (by Project's completion date), volumes will regress to the long-term forecast.

[9] ASPA TDP Benefits Assessment Model

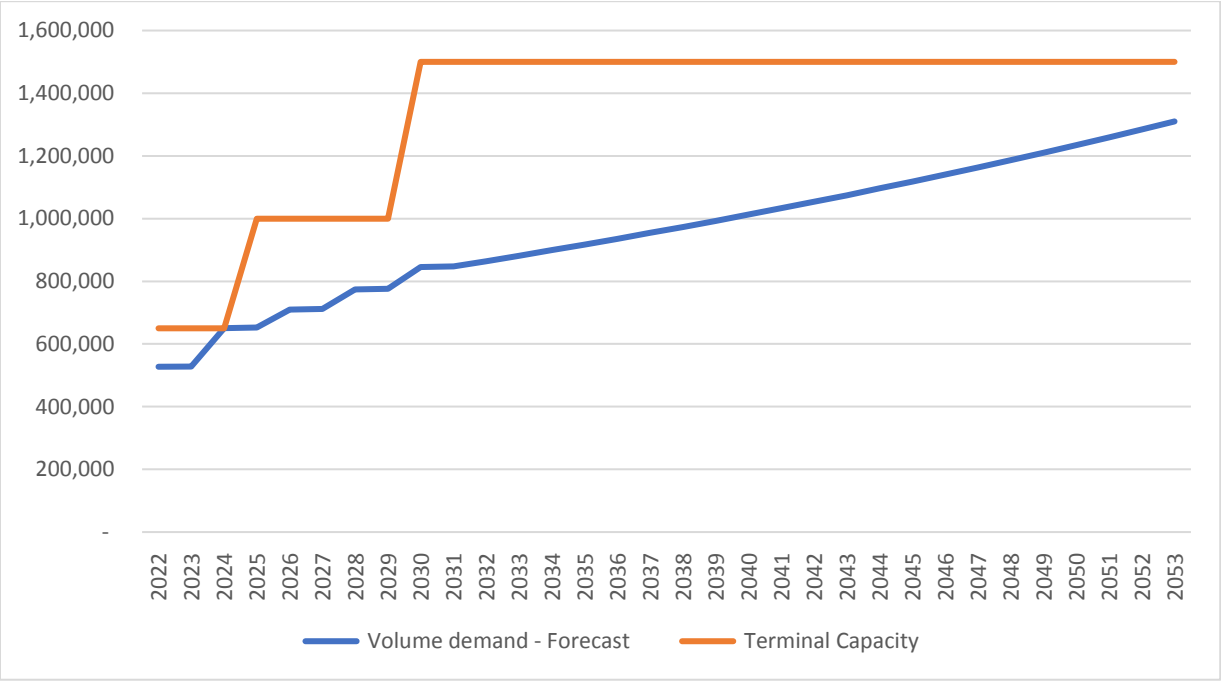


Figure 12: Port of Mobile's Master Plan Forecast

The rail ICTF has been operational since late 2016 and handled 5,457 containers in 2020. Initial feasibility studies of the ICTF indicated that within six years of the operation of the ICTF, about 24% of total port volumes will be intermodal. The 24% share is consistent with general intermodal share of East Coast ports. At 24%, and considerations for the Port's capacity restrictions, the ICTF is expected to handle about 85,000 containers by 2025. The BCA analysis assumes that capacity at the ICTF is planned in way to ensure rail capacity never becomes a constraint.

ASPA Trucking Distance Reduction Benefits

The Project will lead to two main reductions in truck distance travelled:

- Reduction of the distance travelled between the container terminal and the ICTF.
- Reduction of distance travelled between the container terminal and distribution centers.

The Connector will reduce the distance travelled by trucks between the container yard and ICTF by one mile. Over the analysis period, this will total to 7.0 million truck miles travelled. Truck routes for build and non-build scenarios are shown in Figure 13.

No-Build

Build

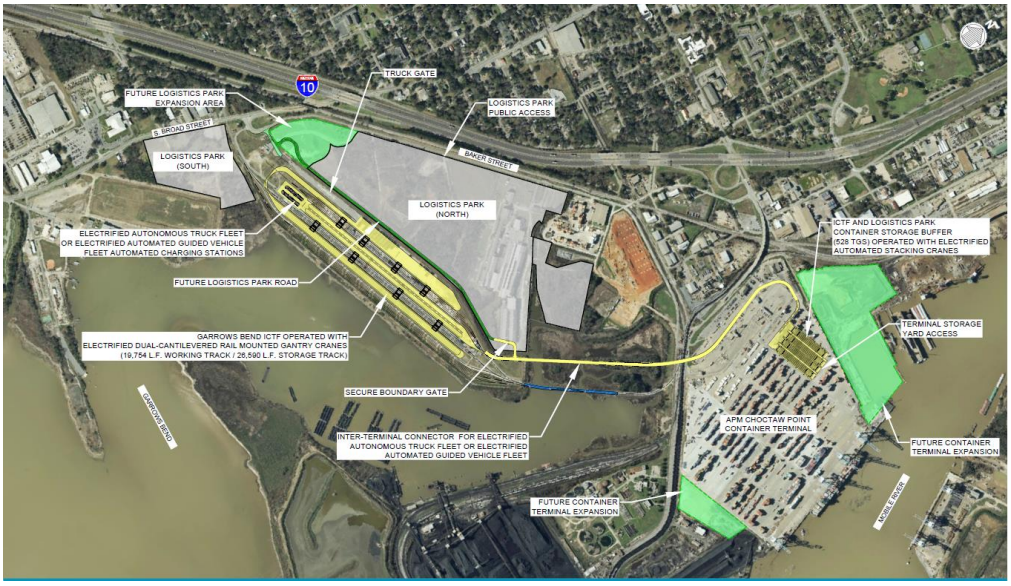


Figure 13: Build and No-Build truck distance to ICTF

By bringing the distribution centers closed to the closer terminal, the container cargo will have the ability to switch from 40-foot containers to 53-foot containers earlier in its path to final consumers. This conversion leads to about 32% reduction in truck miles travelled over the reduced distance. Currently, the main distribution clusters serving the Port of Mobile are located in Saraland/Chickasaw Alabama, Theodore Alabama, Biloxi Mississippi and Pensacola Florida with and average distance of 36.25 miles from the port. After completion of the Project, this distance

will be reduced to 0.75 miles. Over the analysis horizon, the new Logistics Park will lead to a reduction of 57.2 million truck miles travelled.

Over the 30-year analysis period, total benefits of reduced truck miles are estimated to be $131.2 million, which would equate to $38.9 million discounted to 2019. (This discounting reflects a 3% discount rate for carbon dioxide and 7% discount rate for all other benefits.).

Table 2: Truck-Mile Reduction Benefits

Category	Present Value (US$ Million)	Undiscounted (US$ Million)
Mobility Outcome	$11.1	$39.2
Economic Vitality	$17.9	$63.4
Safety Outcome	$5.4	$19.3
Environmental Sustainability Outcome	$4.5	$9.4
Total Benefit	**$38.9**	**$131.2**

The emissions savings caused by reduction in truck miles travelled is show in Table 3.

Table 3: Truck-Mile Reduction Emission Savings

	Emission Savings in Tons
Carbon Dioxide	100,449
NOx	50.72
Particulate Matter 2.5	1.37
SO2	0.72

Benefits of Conversion from Diesel to Electricity

The Connector also allows for the operation of electric trucks between the container terminal, ICTF and the logistics center. Based on sources of electricity generation in Alabama[10], compared to diesel, electricity is a cleaner and more environmentally friendly energy source for trucks moving cargo between the container terminal, ICTF and the Logistics Park. Through the BCA horizon, switching to electric truck will lead to reduction of more than 5,692 metric tons of CO2. Electric trucks will also lead to reduction of other air pollutants such as NOx.

Over the 30-year analysis period, total benefits of switching to electric trucks are estimated to be $324,862 which would equate to $196,373 discounted to 2019. (This discounting reflects a 3% discount rate for carbon dioxide and 7% discount rate for all other benefits.).

The emission saving from switching to electrified trucks is shown in Table 4.

[10] Electricity Generation

Table 4: Truck Electrification Emission Savings

	Emission Savings in Tons
CO2 emissions	5,692
NOx emissions	2.86
PM 2.5 emissions	0.14

iii. MAA Transportation Solutions

The MAA portion of the Mobile Intermodal & Multimodal Freight Efficiency Project consists of three elements: the transfer of commercial airline operations from Mobile Regional Airport (MOB) to the Mobile Downtown Airport (BFM); the construction and operation of a new airline terminal at (BFM); the construction and operation of FIS processing and inspection facilities within the new BFM terminal.

The critical element for expanded air cargo operations in Mobile is the transfer of commercial airline activity from the Mobile Regional Airport (MOB) to the downtown airport (BFM) for a number of reasons, all interrelated. BFM is more centrally located to local population and airport users than MOB – both leisure and business travelers, especially downtown Mobile and neighboring Baldwin County, Aeroplex and Port businesses. The Alabama beach and tourism industry are located closer to BFM than MOB. Air service at BFM would provide incentive for Mobile and Baldwin County businesses and residents to use the local airport and avoid expending more time and resources driving elsewhere; and what is true for passenger service is the same for freight cargo business. Moving commercial operations to BFM would result in a net increase in airline operations, freight and passenger activity there versus the current situation with Mobile airports.

A very high proportion of air cargo is transported by passenger aircraft. Airline passenger flights using BFM would bring the related and important aircraft belly cargo capacity to the airport which in turn adds to the cargo capacity currently at BFM, which is developing into a critical mass of cargo freight activity and logistics capacity at BFM and the Brookley Aeroplex.

Moving airline operations from MOB requires the construction of a new terminal at BFM with greater capacity and gates than currently exists at that airport. Importantly the terminal would include Federal Inspection Service facilities for processing both cargo and passengers. Prior to the COVID-19 pandemic the downtown airport began domestic commercial airline operations. Additionally, discussions began with an air carrier interested in international service from Mobile. The Pandemic forced a temporary suspension of the service and discussions. Future international service from Mobile would require FIS facilities.

Delivering Benefits of the BFM Move & Terminal Construction

Establishing Brookley as The Commercial Airline Gateway Buttresses The Entire Project. Freight has several modalities, these being land, sea, waterway, and air. The first three are in place at

the Port. To make this truly an intermodal facility capable of handling all current and future channels of logistics, the air segment must be present. Given the rapidly growing applications of air cargo, the proposed site would essentially be incomplete without this modality. *The move of commercial service to Brookley will enhance the role of the airport, as well as position Mobile for future air service growth*.

The Brookley Aeroplex (BFM) – already in place – is a critical component in making the Intermodal Port truly competitive, and strengthening Mobile, Alabama as a major logistics center.

The advantage of BFM is that with its replacement of Mobile Regional Airport as the commercial air service gateway to the region, it represents revenue streams to make the entire air cargo operations at BFM more cost-efficient. Concurrently, it represents major improvements in air service access for the Mobile region.

Commercial Air Operations Will Make Brookley A Contributor To The Intermodal Concept. The commercial passenger service at Brookley will underwrite much of the operational costs of the airport, thereby rendering BFM as a highly competitive site for import, export and transfer of air cargo.

To accomplish this, BFM will need to construct a new terminal and related passenger-handling facilities to accommodate what is forecast to be a rapidly growing enplanement base. The revenue streams from the commercial passenger service will allow for establishment of a flexible growth plan for domestic and international air cargo, compatible with the other freight modalities at the Port/Airport complex.

As such, the new passenger terminal will bring an enormous value-added to the Intermodal Freight Efficiency Project.

To restate, the passenger commercial service will be the financial and operational underpinning that will support the anticipated corollary air cargo operations, which are compatible and supportive of the larger Multimodal and Intermodal Project. In this, it is essential that Brookley have the terminal and ramp facilities to meet the future commercial passenger needs of the region, as well as the potential growth in this segment, specifically due to the economic impact of the Port and the expansion of industries at Brookley.

Understanding The Future Role of Mobile In Global Trade. This terminal requirement is even more important when looking at the future of international air service possible for Mobile.

It is important to understand that the past is not an indicator of the future. One example is the emergence of Mobile evolving into one of world's most important sites of airliner production – an event that was the result of a confluence of major shifts in global logistics.

Mobile is now a global player. In the Airbus production system, Mobile takes its place along with Toulouse and Hamburg in the EU, Montreal in Canada, and Tianjin in China. These relationships generate not only cargo, but passenger demand as well.

Today, the component mix on the A220s and A320s rolling out of the Airbus assembly plant at Brookley, represents over a dozen nations. The chart from Airbus clearly shows the complex nature of the international production system of which Mobile is now a part. The point is that Brookley, by virtue of the Airbus factory, is a key part of the global trade mix for Alabama. It will need a futurist-class airport to accommodate this position. The shift of commercial access to BFM is necessary to accomplish this goal.

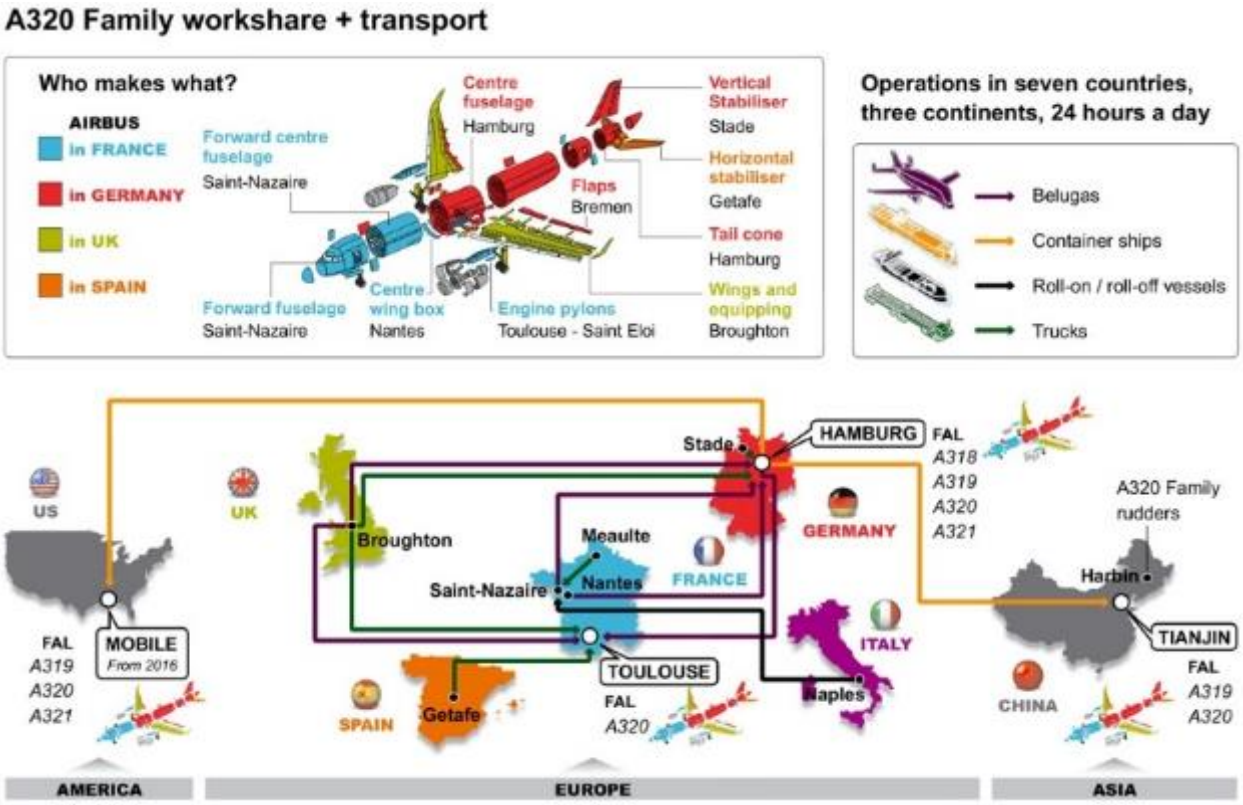


Figure 14: A320 Family workshare and transport

Capitalizing On BFM Advantages

Foundation For Future International Air Service. This is another reason not to rely on the past when projecting the future that Brookley will address regarding both air cargo as well as passenger traffic. This is because the entire traditional air transportation system has changed.

Today, international routes that are most attractive to airlines are business markets. Until now, these markets needed to have high volume demand to fill "traditional" international flights dominated by high-density wide-body airliners.

This has now changed. The variants of new-generation narrow-body airliners, such as the A220-300, the Boeing 737Max, and the A321XLR series, represent the ability to right-size capacity to specific trans-Atlantic business markets, including Mobile.

In these mission applications, the airline decisional factors are more dependent upon traffic generated by international trade flows than by traditional metrics such as local population.

For example, British Airways added nonstop flights to London from Charleston, instead of a wide number of much larger population cities in the US. The traffic base they were targeting was the business and commercial travelers, not mass movements of tourists.

The main determinant in the decision by British Airways was the emergence of Charleston as a major international port – and, also pertinent to Mobile – as a major Boeing airliner manufacturing center.

To be clear, Mobile airplane production is much smaller than Charleston, but with these aforementioned new-generation airliners, limited nonstop international flights are a strong possibility within the next five years. Brookley, with new passenger handling facilities, will make this possible.

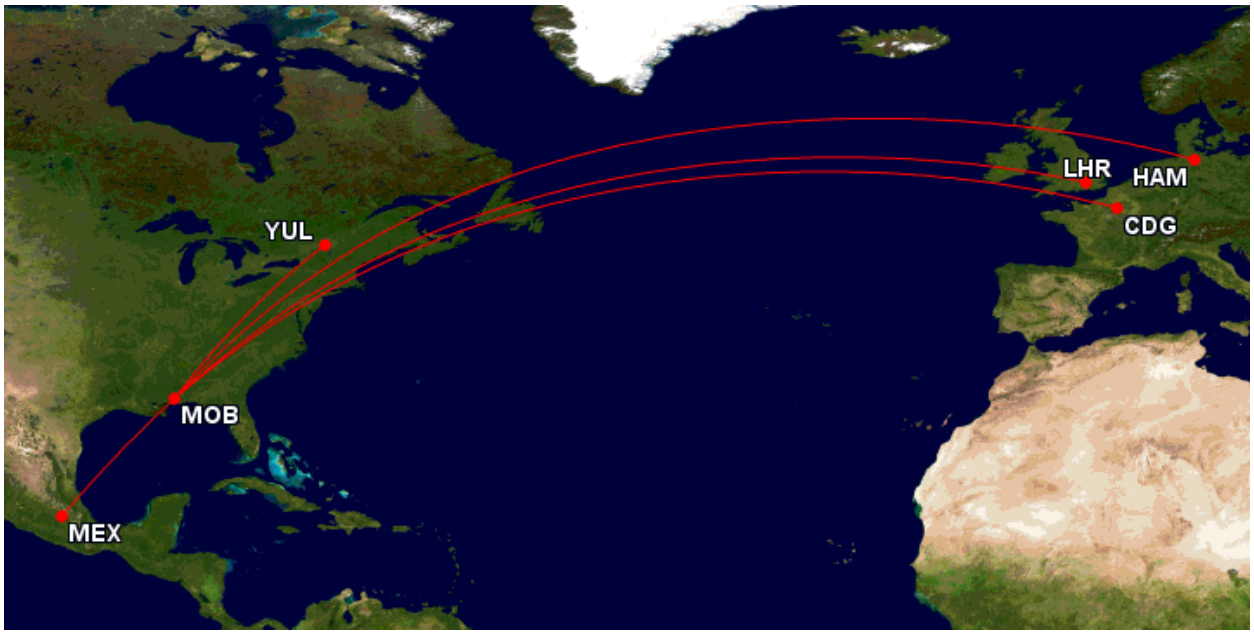


Figure 15: Airport Manufacturers and Subsidiary Factories Map

These only represent examples, as the relationships between an aircraft manufacturer and its subsidiary factories and suppliers constantly change. One of these shown here is Mexico, which is already the #6 source of components to U.S. aircraft industry and is on a fast track to develop its own such industry. There will be commonalities of business commerce with cities such as these in the future.

General & Business Aviation. Along with the expected growth of air service generated by the move from Regional to BFM, there will be increased international general and business aviation operations. The Federal Inspection Station will be an important service to facilitate this sector of aviation.

This is the reason that the construction of a terminal and related facilities is critical to the Project, to make Brookley a fully functioning airport that addresses the future needs of Mobile.

Enhanced Domestic Passenger Service Access Potential. The move to Brookley will also enhance the viability of the commercial passenger service accessing Mobile. One reason is that Mobile Regional Airport is not optimally located to take advantage of the future. Brookley certainly is.

Brookley, on the other hand, is in the center of the majority of the population base in the Mobile region, making access to flights at BFM much more convenient than at Regional.

This will have an effect on traffic capture. It is estimated that in 2019, the immediate Mobile air service catchment area (the geographic region within approximately an hour from the airport) generated approximately 2.0 million air passengers. Yet Mobile Regional handled only approximately 685,000.[10]

Brookley Air Service Demand Capture

Mobile Has Air Service Advantages That Brookley Will Deliver. It is of note that the international air service potential noted above represents economic traffic drivers *specific* to Mobile. This is another factor where the terminal and related facilities at Brookley will deliver immediate and long-term economic impact and revise the role of Mobile as an access point to the Gulf Coast.

More importantly, Brookley represents a far superior location to attract and retain the air passenger traffic in the region.

A review of the population corridors in the region put BFM literally in the middle of the confluence of all of the major road arteries in the region. Mobile Regional Airport, however, misses this mark. In particular, it is vastly less convenient for consumers on the eastern shore of Mobile Bay, along US Rt. 98.

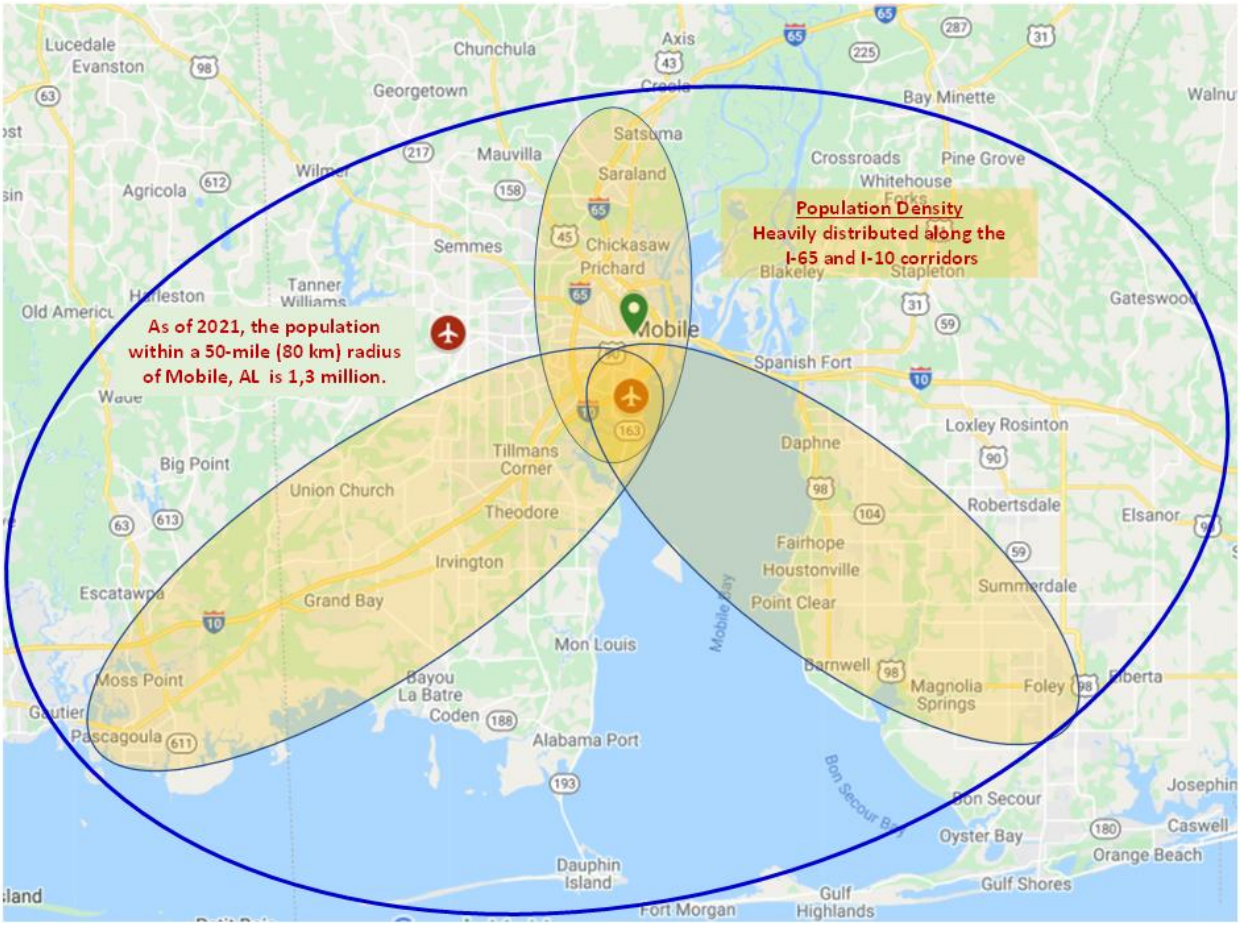


Figure 16: Brookley Air Service Demand Capture

This will translate into additional traffic recapture. As a very preliminary estimate, it is estimated that Brookley commercial service could recapture as much as 130,000 additional passengers annually, *just from the change in access*. This in turn will make Mobile/BFM more attractive to new service entry.

Preparing For E-Commerce Growth

The Imperative of Brookley to The Success of The Intermodal Project. Air Logistics will be a critical part of the viability of the Intermodal Project. This is represented by the presence of Brookley Aeroplex as part of the Intermodal Freight Efficiency Project.

Accommodation of E-Commerce at the Project. The marine and surface segments of the Project are well described and supported, based on known and expected trends in these areas of logistics. However, Brookley is important to the Project to assure that the facility also fits with the fastest-growth segment of logistics, which is e-commerce, a channel dependent of the efficiency and speed of air transportation.

Essentially developing just in the last 15 years, e-commerce is the delivery of products to the consumer directly from a supplier, using fleets of aircraft that in themselves represent a new major retail channel.

Instead of physically shopping, the trend is for consumers to order goods on-line, and have them directly delivered in a short period of time, often the next day, relying on the inherent speed of air transportation. Clearly, the growth in this segment has spiked markedly as a result of the nationwide and regional COVID-19 shutdowns. The U.S. Department of Commerce has registered between 10% to 15% annual growth yearly since 2010, with a major spike in 2019-2020.

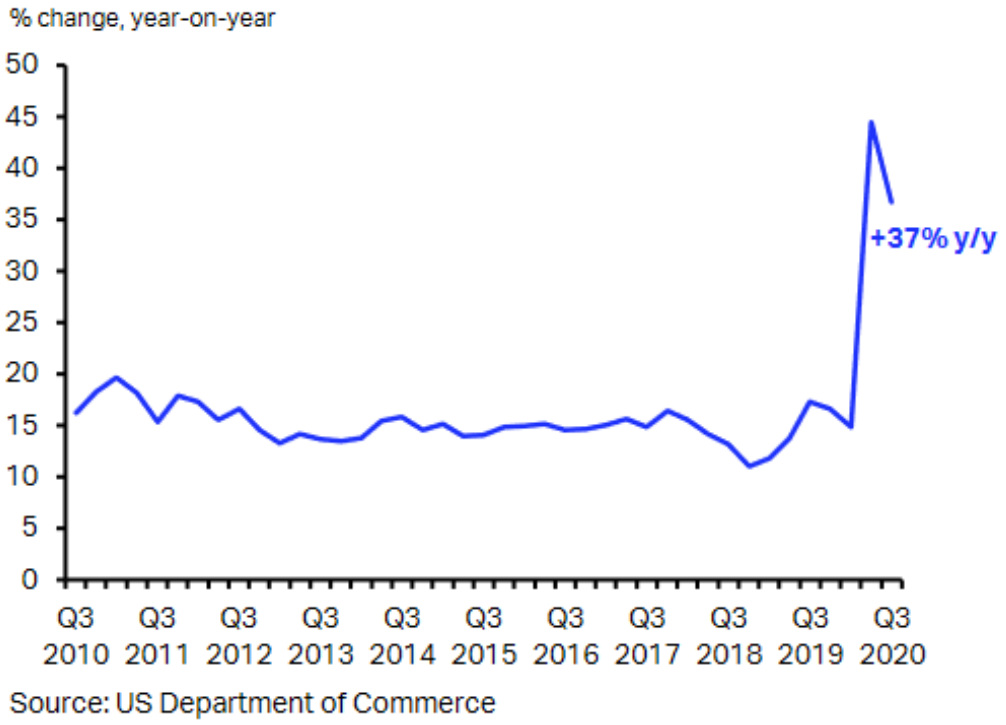


Figure 17: Preparing for E-Commerce Growth

Additional statistics can be provided regarding the impact of this emerging modality on other consumer channels. However, a silent proof of the new role of e-commerce is the site of once busy and vibrant shopping malls now closed or struggling across Alabama and the nation.

The model of e-commerce is based on rapid shipment by air of goods consolidated at fulfillment centers to distribution points for final delivery. Based on Mobile's location and the quick access to two major interstate highway arteries at Brookley, the attractiveness of the site for additional e-commerce air logistics is very high.

Mobile Regional Airport, unfortunately, is particularly unsuited to meet this e-commerce segment, mainly because of its location which delivers inferior time-based access and egress.

In conclusion, it is clear that if the Project is to have a full range of logistical capabilities, the shift of passenger traffic, and the revenues such will deliver, will be critical to support the addition of air freight capability. Therefore, establishment of a new terminal and related facilities at Brookley will benefit the entire region and strengthen the viability of the entire Project.

BFM Terminal Project Benefits Summary

The map below provides a clear visual of the benefits and opportunities that moving commercial air service to Brookley will represent to the Intermodal Project.

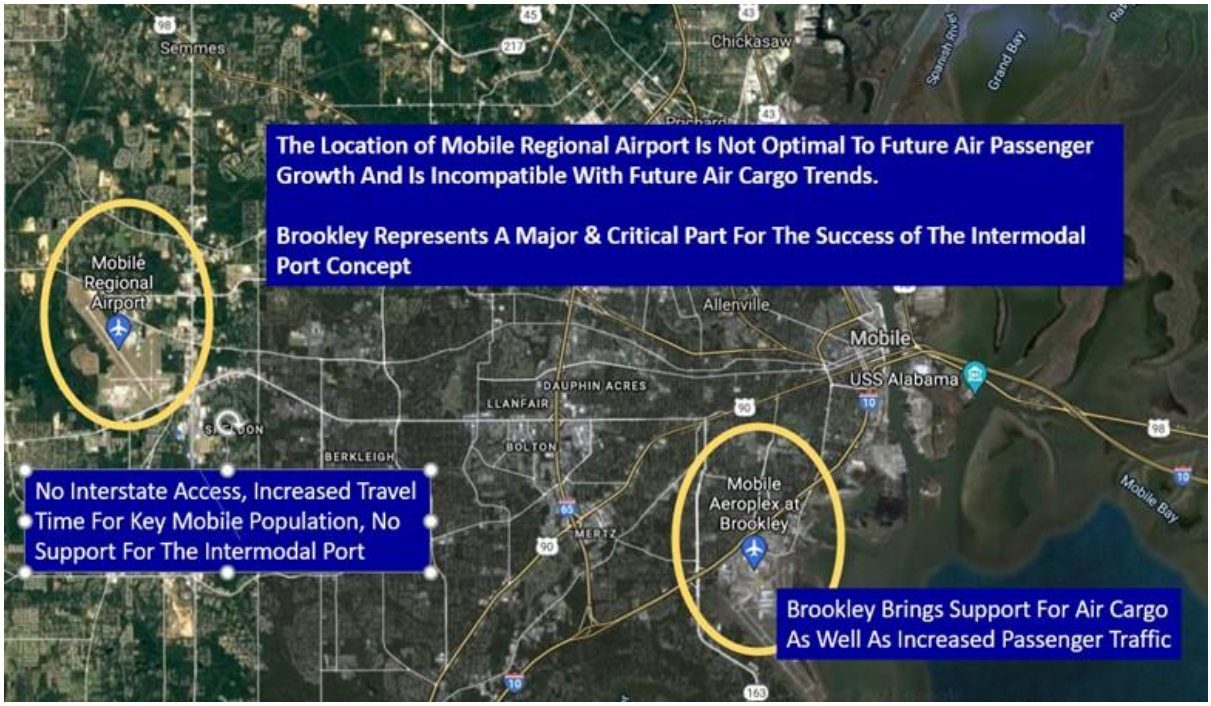


Figure 18: BFM Terminal Project Benefits Summary

The key term here is “efficiency,” which is what the Brookley piece will bring to the Project.

Brookley is perfectly located to resolve two current air transportation inefficiencies at Mobile. The first is that Mobile Regional Airport is poorly located to provide convenient (and, as will be noted herein) fully competitive air access for substantial parts of the Mobile region.

The second inefficiency – and one that will become increasingly important in the future – is that Mobile Regional Airport is poorly located to take advantage of the future growth and trends in air cargo, particularly e-commerce.

Therefore, the move of commercial passenger service to Brookley will provide operational and financial underpinning to the Intermodal Project. It will represent a facility that will give the Project air cargo capability, plus represent near-immediate growth in passenger enplanements.

To be clear, shifts in fleet mix at U.S. airlines indicate static levels of passenger airline belly cargo. This is simply due to the fact that passenger transportation and airfreight movement have very

different logistical support needs, and that passenger service operations do not match well with the needs of cargo shippers. It is projected that as smaller regional jets are retired and replaced with larger units of capacity, there will be some increase in this segment.

That much said, commercial passenger service at Brookley is entirely compatible with the goals of this Project by supporting the infrastructure necessary to attract and increase all forms of air Logistics, including increased traffic from integrated carriers as well as the future expansion of e-commerce.

As noted in this document, the move to Brookley will deliver additional revenue streams that will strengthen the facility to support additional all-cargo operations in the future, as well as make the airport more cost-competitive for additional industrial investment, such as has been seen with the Airbus manufacturing complex. Literally, any additional aeronautical expansion at BFM will enhance the ability of the Intermodal Project to further position Mobile as a global Logistics center.

Increased Air Traffic Access At Mobile. The location of a commercially served airport can and does affect the levels of passenger usage. In the geographic case of Mobile, the location of and ground access to Mobile Regional Airport is less advantageous to retaining this traffic than Brookley, which is more easily accessed, thereby increasing the competitiveness of Mobile in retaining locally generated air consumers, and thereby attracting additional air service.

The shift of commercial passenger service to Brookley will deliver a range of important enhancements to the Mobile economy in addition to adding materially to the value of the Port of Mobile.

- It will bring to the Intermodal Project important and rapidly growing air Logistics capability, to establish a true, fully modal freight operation. No other single-site location in the United States has this capability. As a result, Mobile will be competitive with any other port facility in the nation.
- It will facilitate the addition of the important e-commerce air freight modality into the Intermodal Project. This is the fastest-growth sector of Logistics, with compounded volume growth in excess of 10% annually since 2010, and over 30% since to onset of the Covid pandemic in 2020.[11] Mobile Regional Airport does not have sufficiently developed access and egress to the Interstate highway system to efficiently accommodate this new channel.
- The shifting of commercial service from Mobile Regional Airport to Brookley will entail the need for a new, futurist-generation passenger terminal and related support facilities, including a Federal Inspection Station to accommodate international traffic from both commercial service as well as charter and business aircraft operations.

[11] Source: U.S. Department of Commerce

- The commercial passenger service at Brookley will be better and more conveniently located for a substantial portion of Mobile consumers. Because of this, it is expected that the commercial flights at Brookley would be able to capture at least 130,000 additional annual passengers.[12]
- The viability of Brookley as a commercial airport has been proven with the experience of service with Frontier Airlines at the airport. This underscores the need and value of a new full-function passenger terminal at Brookley.[13]

IV. PROJECT INNOVATION

A. ASPA PROJECT COMPONENTS

i. Innovative Design

Making the shift from local streets to the more efficient Inter-Terminal Connector directly supports the Project benefits including State of Good Repair, Economic Competitiveness, Livability, Environmental Sustainability, and Safety.

This Project will accommodate both domestic and international freight. The construction of a dedicated roadway connector between and among the ICTF, the Logistics Park, and APMT marine terminal will allow for the seamless transfer of containers from the marine terminal directly into the rail yard and Logistics Park thereby eliminating the need for this traffic to transit city streets or local roadways. Export containers would be transferred from ICTF or the Logistics Park to the APMT marine terminal.

The construction of the Inter-Terminal Connector will not only provide the opportunity to electrify yard tractors and cranes but will also facilitate the possible future implementation of autonomous vehicles to dray containers between the terminal, the Logistics Park, and the ICTF. Introduction of electrified yard tractors is already underway in Pier C-60, Port of Long Beach, and Terminal 60, Port of Oakland. The deployment of charging receptacles mounted on the trucks will allow the tractor to plug into the charger without the need to plug in electrical cords. As battery technology continues to evolve, opportunities for energy savings will increase.

The next progression in the cargo handling evolution will be the deployment of self-guided yard tractors or autonomous guided vehicles. The Inter-Terminal Connector will provide direct, secure, obstacle-free routes without public roadway or pedestrian interference. A possible future introduction of self-guided container transports could enhance safety and reduce operational costs.

[12] Source: 2021 Airports:USA Enplanement Forecasts
[13] The Frontier service was successful. With the advent of the Covid epidemic, the airline cut back service across its system. It has since evinced interest in re-entering the Mobile market.

ii. Innovative Delivery Practices

ASPA intends to procure final design and construction of the Inter-Terminal Connector using a Design/Build approach. A two-stage Design/Build process was successfully used to develop the rail ITCF. Contracting protocols and procedures to support Design/Build procurement are already in-place. Since the design has already been advanced to 30% completion, there will be minimal lag time to implement this process.

Building on previous NEPA reviews and approvals, ASPA will obtain final NEPA approval on a parallel track.

Since more time is needed to design, permit, and construct the Logistics Park site, civil and utility improvements, conventional ASPA design-bid-build procurement will be used for the Logistics Park improvements.

iii. Innovative Financing

ASPA contributions to project funding are programmed into the ASPA capital improvements budget. Investment in this Project will lead to follow-up investments by the private sector. Construction of the Inter-Terminal Connector will increase container volumes at the rail ICTF, and the private operator (APMT) will be responsible for funding the capacity increases necessary to serve those volumes. Future tenants of the Logistics Park will be responsible for all costs related to building design/construction and infrastructure costs related to site specific improvements and their portion of storm water control.

APMT will be responsible for all equipment procurement costs related to future conversion of yard tractors and cranes to electric power, some of which may be requested through future clean air grant programs such as the EPA Diesel Emission Reduction program.

iv. Jurisdictional & Stakeholder Collaboration

This Project has the support of APMT, the operator for both Mobile Container Terminal and the rail ITCF, as well as ALDOT and the City of Mobile. Other key stakeholders are major customers of the Port including Georgia Pacific, Hyundai, Nissan, and Airbus. Letters of support[14] will be the basis for a stakeholder group with representatives of each supporting entity to providing design input, helping market the project, and coordinating on regulatory approvals.

The rail ICTF, as part of the Choctaw Point Complex, continues to benefit from strong collaboration among a broad range of participants including full integration of transportation agencies with other non-transportation public service entities. These participants include citizens, private industry partners, State and Local government, and numerous State and Federal agencies. Of particular note, the Port of Huntsville, the Port of Memphis, and the Appalachian Regional Commission provide substantial collaboration and support for future leverage of the Project for regional growth and economic development purposes. Further, the City of Montgomery in partnership with the state and private industry is seeking to construct a $54

[14] TDP Application Letters of Support

million inland intermodal container transfer facility (Inland ICTF Port) to service Central Alabama shippers, create jobs in an underserved region of the state, and generate state maintenance and environmental benefits by moving trucks off the I-65 corridor.

The Logistics Park will have a market reach to much larger warehousing and industrial markets throughout the Southeast and will synergize additional regional development as the Project matures.

In addition to the traditional warehouse and industrial stakeholders, the Logistics Park development process will include significant community outreach on its design and vision to ensure that the surrounding communities — many of which are low income and minority neighborhoods — will be able to access employment, training, and public transportation opportunities associated with the Logistics Park.

v. Disciplinary Integration

The Inter-Terminal Connector and the Logistics Park, as parts of the Choctaw Point Complex, is integrated through coordination and support of the public, the City, the County, the state, environmental regulatory agencies at the federal, state, and local levels, the Mobile County Health Department, the Alabama DOT, the Mobile Transit Authority (The Wave Transit), the City of Mobile Parks and Recreation Department, chambers of commerce and economic development, private rail and shipping container transportation companies.

As identified and referenced throughout this grant application, the Project integrates the national demonstration grant goals of (1) expanded intermodal and multimodal freight capacity, (2) increased freight efficiency and business competitiveness, and (3) greater connectivity and resilience of the overall freight and cargo supply chains.

In addition, these national goals are integrated with community standards to address climate change, environmental justice, racial equity, and equitable employment opportunities.

B. MAA Project Components

i. Innovative Design

The design of a new terminal for the Downtown Airport will incorporate a number of innovative and state of the art features. The overall terminal design and construction product will have a LEED Certified goal. Additionally, the Terminal civil works implementation will utilize the ENVISION ratings process for maximizing infrastructure sustainability.

It is proposed a large portion of the terminal will incorporate sustainable materials in the construction, primarily wood for the ceiling. The HVAC systems will incorporate geothermal energy sources, especially for cooling. As part of LEED Certification achievement lighting and glazing will be significantly energy efficient. The building will be equipped for electric recharging equipment to be utilized with electric ground servicing equipment (GSE) utilized for aircraft and building operation/servicing vehicles. Likewise, the auto parking areas will be constructed to accommodate and encourage the growing demand for electric autos and trucks. Additionally,

rainfall on building and surface hard spaces will be collected and utilized to minimize runoff into surface waters. Existing pavements to be removed will crushed and the materials recycled. The terminal will be designed for ease of expansion as space demands increase in the future. The objective is to be able to incrementally expand areas for a variety of functions without having to disrupt or demolish existing spaces. Additionally, upon completion of the new Downtown Airport terminal, the existing terminal spaces could be used temporarily for freight cargo processing.

ii. Innovative Delivery Practices

In addition to its own experience and expertise in managing the design and construction of airport facilities, the Mobile Airport Authority will retain the services of an experienced airport program management consultant.[15] The Program Manager will provide single point responsibility for overall management of the new terminal design and construction process including that for budget and schedule. The Program Manager will be contracted at a fixed fee for management of not to exceed budgets of the designers and construction contractors.

The Mobile Airport Authority undertook the Mobile Metropolitan Airport System Study, June 12, 2018 to assess the feasibility of relocating commercial airline service from the Regional Airport to the Downtown Airport. The study included surveys to measure public opinion for such a move and did demand forecasts for MFB. The study confirmed the feasibility of moving the commercial service along with the increased convenience and access for Downtown Airport use. The survey results were very positively encouraging. Moving downtown was shown to result in net total increased passenger and airline use of Mobile based airline services. More airline use translates to more cargo and passenger capacity to not only meet but also induce that demand.

iii. Innovative Financing

With the inclusion of a successful acceptance of this DOT Demonstration Grant application and the funding available therein, together with local funds, the Airport Authority should have the ability to finance the BFM New Terminal. Local funding sources include cash on hand, future passenger facility charges, projected terminal user revenues, and City of Mobile, County and State funding. However, the currently identified funding sources are less than the total required without inclusion of funding from the Demonstration Grant. Winning the Demonstration Grant will make the project happen.

[15] Mobile Metropolitan Airport System Study, Final Report, June 12, 2018 by VHB, Inc., et al.

V. CLIMATE CHANGE AND ENVIRONMENTAL JUSTICE

A. ASPA

Since the adoption of its first Master Plan in 2004 and the 2005 approval of its Final Environmental Impact Statement and Record of Decision, ASPA has followed a clear path of environmental enhancement, most recently in the Project design standards that recognize sea level rise and the need to expand the beneficial use of dredged material to restore wetlands in the Upper Mobile Bay. The following highlights illustrate this progression:

- The 2005 Record of Decision (ROD)[16] explicitly considered environmental justice concerns with the nearby Nellie-Duval neighborhood, including traffic, noise, light intrusion, waterfront access, employment opportunities, and child safety. The environmental justice finding in the ROD concluded "while some indirect impacts would occur, adverse and beneficial, no disproportionately high and adverse environmental or human health impacts are anticipated for the Nellie-Duval neighborhood."

- The 2005 Record of Decision (ROD) identified opportunities for waterfront access previously denied to nearby low-income communities, including the Nellie-Duval neighborhood. The completed Arlington Park and the partially completed Crepe Myrtle Trail illustrate the effectiveness of these early planning decisions.

- As noted above, the design development of the rail intermodal container facility and the Project elements for the Inter-Terminal Connector and the Logistics Park have all incorporated protective features for flooding, storm surges, and sea level rise.

- In 2019, ASPA received the independent Green Marine certification for its performance on fourteen environmental indicators.

- Construction of the Inter Terminal Connector will reduce driving truck miles between the marine terminal and the distribution centers, thereby cutting CO2 emissions by more than 100,000 tons over the life of the project. Estimated air emissions reductions are summarized in Table 3.

- Switching from electric to diesel powered yard tractors will reduce CO2 emissions by more than 5,600 metric tons over the life of the project. Estimated air emission reductions are summarized in Table 4.

- The fill material for raising the grade of the Logistics Park will be taken from a nearby USACE dredge material storage area, thereby increasing the existing dredge material

[16] Record of Decision

storage capacity for the region. This fill material will increase the resiliency of the Logistics Park in the face of sea level rise.

- The distribution facilities and warehouses in the Logistics Park will be programmed to adapt *Green Building* standards that will reduce net energy consumption per square foot occupied space.

This long-term commitment to environmental enhancement will improve water quality, increase coastal and marine habitat, and enhance resiliency and flood protection throughout the Bay.

B. MAA

A review of important natural, historical, and cultural resources was performed, as part of the recently completed and FAA approved Master Plan[17] for BFM, to ensure the protection of environmental and social considerations in and around the Airport boundary. The study of existing environmental conditions at the Airport did not reveal any factors which restrict development of a new passenger terminal complex. In order to satisfy National Environmental Policy Act of 1969 (NEPA) requirements, projects proposed in the Master Plan shall be reviewed in additional detail in subsequent environmental documentation.

The goals of both minimizing and mitigating climate change, with environmental justice are motivations for the relocation of commercial air service to BFM and its implementation with the construction of a new terminal. The distances travelled by future airport users to access BFM are less than currently required for users of MOB and alternate use airports with commercial services. The reduced travel distances to BFM will result in transportation energy cost savings and reduced air quality impact.

At a macro level it is the intent of the Airport Authority to pursue utilization of sustainably generated energy resources not only for the new terminal works but also for the tenants of the Brookley Aeroplex. A similar Aeroplex campus wide approach is intended for overall energy reduction efforts along with a campus wide waste reduction and recycling effort.

The design of a new terminal for the Downtown Airport will incorporate a number of innovative and state of the art features. The overall terminal design and construction product will have a LEED Certified goal. Terminal civil works implementation will utilize the ENVISION ratings process for maximizing infrastructure sustainability.

It is proposed a large portion of the terminal will incorporate sustainable materials in the construction, primarily wood for the ceiling. The HVAC systems will incorporate geothermal energy sources, especially for cooling. As part of LEED Certification achievement lighting and glazing will be significantly energy efficient. The building will be equipped for electric recharging equipment to be utilized with electric ground servicing equipment (GSE) utilized for aircraft and building operation/servicing vehicles. Likewise, the auto parking areas will be constructed to accommodate and encourage the growing demand for electric autos and trucks. Additionally,

[17] Master Plan, Mobile Downtown Airport, Mobile Airport Authority by Leigh Fisher, July, 2020.

rainfall on building and surface hard spaces will be collected and utilized to minimize runoff into surface waters. The terminal will be designed for ease of expansion as space demands increase in the future. The objective is to be able to incrementally expand areas for a variety of functions without having to disrupt or demolish existing spaces.

VI. IMPROVING RACIAL EQUITY AND REDUCING BARRIERS TO OPPORTUNITY

A. ASPA

ASPA is in the process of adopting official organizational policies and procedures regarding Diversity, Equity and Inclusion for full implementation in FY 22.

The Port of Mobile is a significant employment generator, including a substantial number of minority-held jobs. Over the last decade, Black employee hours for direct ASPA employees have averaged approximately 30% of total employee hours, compared with a Mobile County population that is approximately 36% Black. Black ILA employment on the container terminal or the rail intermodal facility is even stronger. Black employee hours in the container terminal and rail intermodal facilities averaged 41% of total employee hours, compared with a Mobile County population that is approximately 36% Black.

Two of the Port of Mobile project elements in this demonstration grant (Inter-Terminal Connector and Logistics Park) are the product of a long-term planning process. Economic impact studies estimated that cargo growth alone will create approximately 1,000 new direct, induced, and indirect jobs,[18] and many of those new jobs will be located at the Logistics Park or on the Inter-Terminal Connector. ASPA will provide for each element to contribute to racial equity in the Greater Mobile region through the following initiatives:

- As part of its solicitation process for the private development of the Logistics Park, the Port will require the selected private developer of the Logistics Park to provide a workforce development plan in consideration of the nearby low income and minority communities and the nearby Alabama Industrial Development Training (AIDT) program.
- The Logistics Park will have a dedicated public transit stop, in addition to the pedestrian access from nearby low-income neighborhoods.
- The Inter-Terminal Connector is projected to support new direct jobs as the container terminal capacity and throughput grow. The Port will work with the terminal operator (APMT) and organized labor (ILA Local 1984) to develop, respectively, internship and apprentice programs with strong community outreach and goals to achieve racial equity.

At the community level, the 2005 Record of Decision (ROD) identified opportunities for waterfront access previously denied to nearby low-income communities, including the Nellie-Duval neighborhood. The completed Arlington Park and the partially completed Crepe Myrtle Trail illustrate the effectiveness of these early planning and environmental decisions.

[18] Martin Associates, Inc. 2019 Economic Impact Assessment

Finally, the Port has a robust Disadvantaged Business Enterprise (DBE) program and has consistently met and exceeded its DBE goals, which currently stand at 8.8

B. MAA

The Airport Authority has a very aggressive policy to promote and support racial equality. Starting with the airport staffing, MAA hiring reflects the diversity of the City of Mobile. With slightly more than 100 employees, diversity is almost equally split between men, women and ethnicity.

The disadvantaged business enterprise (DBE) program is equally strong and consistently carries a 10%-15% goal for disadvantaged, minority and women owned businesses. MAA has consistently met or exceeded the goals in accordance with Federal Aviation Administration policy. The Mobile Airport Authority sets the standard for the region by hosting a DBE outreach program on an annual basis to inform and educate the business community, and to promulgate procurement and employment opportunities available with the Airports.

The Authority management conducts outreach and educational activities to create awareness in the minority communities of the career opportunities available in the aviation sector, and the aerospace industries located within the Mobile Downtown Airport Brookley Aeroplex. These educational efforts focus on local secondary and college level student populations.

Building upon the planned relocation of commercial airlines to the Downtown Airport, the related jobs will be significantly closer to with easier access for populations without personal vehicles or low incomes.

VII. ACCESS TO GOOD PAYING JOBS

Work within the Port of Mobile is attractive due to its competitive compensation and benefits. The International Longshoremen's Association (ILA Local 1410, 1985, and 1459) represents all skilled labor in the container terminal and the rail intermodal facility. Many direct ASPA employees also choose to join the ILA Local 1984 for their representation. Under Alabama law, public agencies cannot directly enter into project labor agreements, but many private contractors choose to work with and through labor-affiliated subcontractors.

VIII. SCOPE OF WORK

A. ASPA PROJECT COMPONENTS

i. Inter-Terminal Connector

The proposed Inter-Terminal Connector will be 36-feet wide with two 12-foot-wide travel lanes. There are two bridge structures, one 511-foot long and one 900-foot long. There are earth embankments through the Garrows Bend and at each end of the roadway to facilitate the grade transition, including MSE walls at the APMT terminus. All roadway and bridge design elements conform to AASHTO and ALDOT standards. The geometrics can accommodate a Northrup Grumman/EADS airplane transport vehicle thereby facilitating the direct transit of airplane modules between the Port and the Brookley Aeroplex.

Bridge over Southern Drain

The bridge over Southern Drain is a 900' long bridge consisting of nine 100'-long simply supported spans of prestressed concrete girders. The roadway has two 12'-wide lanes with 6'-wide shoulders and standard Alabama DOT parapets on each side of the reinforced concrete deck. The transverse section has four prestressed concrete BT-54 girders supported on pile cap bents with four 24" square prestressed concrete piles per bent. The abutments will use 18" square prestressed concrete piles, including additional battered piles, will have monolithic wingwalls and will support approach slabs at each end of the bridge.

Bridge over Yeend Street, Ezra Trice Boulevard and Railroad tracks

The flyover bridge over the local streets and the railroad tracks will be a four-span curved bridge with straight prestressed concrete girders skewed at each pier. The span arrangement is 136' – 133' – 136' – 106' for a total length of 511' along the road and bridge centerline. The roadway will be two 12'-wide lanes, an 11'-wide shoulder on the inside of the curve and a 6'-wide shoulder on the outside of the curve, with standard Alabama DOT parapets on each side of the reinforced concrete deck. The transverse section has four prestressed concrete BT-72 girders on the three longer spans and four BT-63 girders on the fourth span. The abutments and pile bents will be constructed using 24" square prestressed concrete piles, with a protective crash wall at Pier 3 adjacent to the railroad tracks. Abutments will use plumb and battered piles, will have monolithic wingwalls and approach slabs will be supported at each end of the bridge. Riprap will protect the slopes at the south abutment and an MSE retaining wall system will be used at the abutment at the north end of the bridge.

Pavement on fill segments will be bituminous concrete, standard ALDOT highway mix designs.

ii. Logistics Park Site Development

Proposed improvements to be covered by this grant include: clearing/demolition; fill placement to raise site elevations two feet above the 100-year FEMA flood to accommodate projected sea level rise; installation of storm drains and water/fire protection loop; and construction of interior roadways. **Granular fill to raise site elevations can be sourced from nearby dredged material placement sites operated by USACE. This has the added benefit of restoring dredged material placement capacity while addressing projected sea level rise**.

Municipal water and sewer will be extended to the Logistics Park, as well as backbone underground power and fiber. The Inter-Terminal Connector will connect to just inside the Logistics Park. The further extension of the roadways inside the Logistics Park will depend on a private lease and development agreements separately procured by ASPA. The current standards call for interior roadways to be a minimum of 30 feet wide.

iii. Vehicle Electrification Infrastructure`

When implemented, the electrification infrastructure will include 12-yard tractor power/charging stations that are planned to l be located in the southeast corner of the ITCF and to extend ITCF power distribution system to serve these units. Some minor paving will also be required.

B. MAA Project Components

The development of the new passenger terminal at BFM will include a number of interrelated activities including environmental reviews, site investigations and preparation, design and construction. The terminal interior area will be a minimum of 120,000 square feet and will include: initial 5 gate areas each with enclosed boarding bridge; baggage sortation and claim area; security checkpoint area; departure hold rooms; FIS (including customs and border patrol facilities); administrative office areas; ground transportation servicing and loading areas.

Work will include the relocation of existing tenants in the new terminal footprint and related building demolition. Approximately 30,000 square yards of new aircraft apron will be constructed, and elated utility upgrades and expansion are also part of the new terminal project. Space within the existing terminal building will be modified and converted to accommodate the processing and storage of air cargo. The new terminal will be designed and constructed to accommodate future expansion without major impact or disruption of the initial new terminal facilities. Program components and activities are shown in the BFM Terminal Project Schedule.

IX. PROJECT PARTNERS

A. ASPA

The Alabama State Port Authority (ASPA) are owners of the Port of Mobile, where the Mobile Intermodal & Multimodal Freight Efficiency Project will be constructed. As stated previously in this grant application, pursuant to Alabama Code Title 33-1-12, ASPA has the power to engage in improvement, promotion, development, construction maintenance and operations the harbors, seaports and riverports within the State of Alabama and its jurisdiction. ASPA owns or operates 35 marine terminals, an intermodal container rail yard, and is developing al park on ASPA property.

i. Mobile Airport Authority (MAA)

The Mobile Airport Authority (MAA) is the owner and operator of the Brookley Downtown Mobile Airport (BFM) together with the contiguous Mobile Aeroplex at Brookley, and the remotely located Mobile Regional Airport. The first, situated along Mobile Bay four miles south of the City's downtown, is Mobile Downtown Airport (BFM), which includes the Mobile Aeroplex. The second airport is the Mobile Regional Airport (MOB) which is remotely located west of the City of Mobile.

X. PROJECT BUDGET

A. ASPA PROJECT COMPONENTS

Table 5: ASPA Project Costs[19]

Project Component		Cost	Funding Allocation	
			TDP Grant Funds	ASPA Funds
1.	Inter-Terminal Connector Road	$25,415,000	$20,332,000	$5,083,000
2.	Logistics Park Infrastructure	$18,847,000	$15,077,000	$3,770,000
3.	Equipment Electrification Infrastructure	$3,384,000	$2,691,000	$693,000
	TOTAL	**$47,646,000**	**$38,100,000**	$9,546,000

B. MAA PROJECT COMPONENTS

Table 6: MAA Project Costs

Project Component		Cost	Funding Allocation	
			TDP Grant Funds	MAA Funds
1.	Environmental study, survey, geotech	$851,000	$494,000	$357,000
2.	Planning and design	$4,673,000	$2,710,000	$1,963,000
3.	Tenant relocation/demolition	$17,010,000	$9,866,000	$7,144,000
4.	Terminal construction	$70,875,000	$41,108,000	$29,767,000
5.	Apron expansion	$10,658,000	$6,182,000	$4,476,000
6.	Utilities installation	$5,250,000	$3,045,000	$2,205,000
	TOTAL	**$109,317,000**	**$63,405,000**	**$45,912,000**

[19] Detailed ASPA Cost Estimate

XI. PROJECT SCHEDULE

A. ASPA PROJECT SCHEDULE

The ASPA Intermodal Freight Efficiency projects will be procured and constructed using two different methodologies. The Inter-Terminal Connector Bridge/Roadway will be bid and built using a Design/Build procedure, taking current bid documents prepared to 35% completion and verifying the design for changes in field conditions and design codes and procedures. The project will then go through a 2-month procurement period using a two-step interview and selection process to choose the most capable Contractor from a price and technical capacity perspective. From the point in time when the Contractor executes a contract with ASPA, the project will progress through a 4-month final design period where an engineering consultant will advance the plans and specifications to a 100% completion stage. During this period, the Contractor will have the flexibility to procure materials and, accordingly be able to reduce the overall schedule. The construction duration is estimated at 16 months and includes conditional inspection and completion of final punch list items.

The ASPA Logistics Park Development project will be designed, bid and constructed by the traditional Design/Bid/Build process whereby development of construction documents proceed through a 30%/60%/100% design phasing schedule. The National Environmental Policy Act (NEPA) approval process will require an environmental assessment to be advanced in strict conformance with Federal guidance documents for those parcels that will be considered in the ultimate development. Preparation of the environmental document (likely an EA) will be initiated as a first task by the design consultant selected by ASPA, followed by a 12-month field investigation/design effort and concluding with obtaining local agency project approvals. The procurement and public bid process will be managed by ASPA staff and will conclude with the price-based selection of the pre-qualified Contractor and contract execution. The construction duration is estimated at 14 months and will conclude with condition inspection and resolution of final contract punch list items.

ID	Task Name	Start
1	**Design/Build Inter-Terminal Connector**	**Sun 8/1/21**
2	Grant Agreement	Sun 8/1/21
3	Notice to Proceed	Tue 2/1/22
4	Field Investigations	Tue 2/1/22
5	ICTF Phase I Verifications	Tue 2/1/22
6	35% Development Stage	Fri 4/1/22
7	Design/Build Procurement	Wed 6/1/22
8	Final Design	Sat 10/1/22
9	Construction Stage (455 Days)	Wed 2/1/23
10	Final Inspection	Wed 5/1/24
11	Project Completion	Sat 6/1/24
12	**Design/Bid/Build Logistics Park (VAD North/VAD South)**	**Sun 8/1/21**
13	Grant Agreement	Sun 8/1/21
14	Notice to Proceed	Tue 2/1/22
15	Final NEPA Approval	Tue 2/1/22
16	Field Investigations	Mon 8/1/22
17	30% Design Stage	Thu 12/1/22
18	Final Design Stage	Wed 2/1/23
19	Design/Bid/Build Procurement	Tue 8/1/23
20	Construction Stage (425 Days)	Fri 12/1/23
21	Final Inspection	Sat 2/1/25
22	Project Completion	Sat 3/1/25

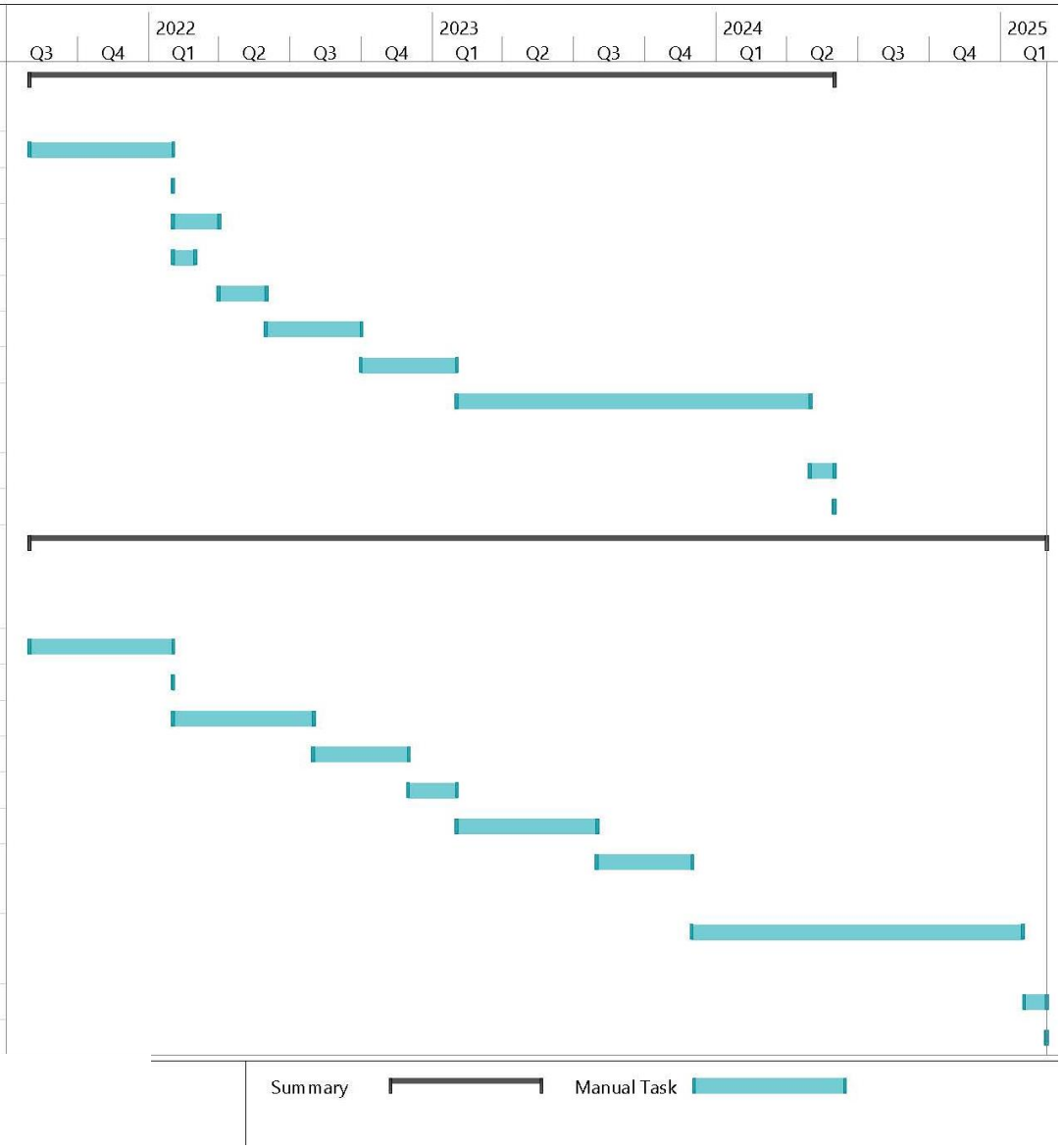
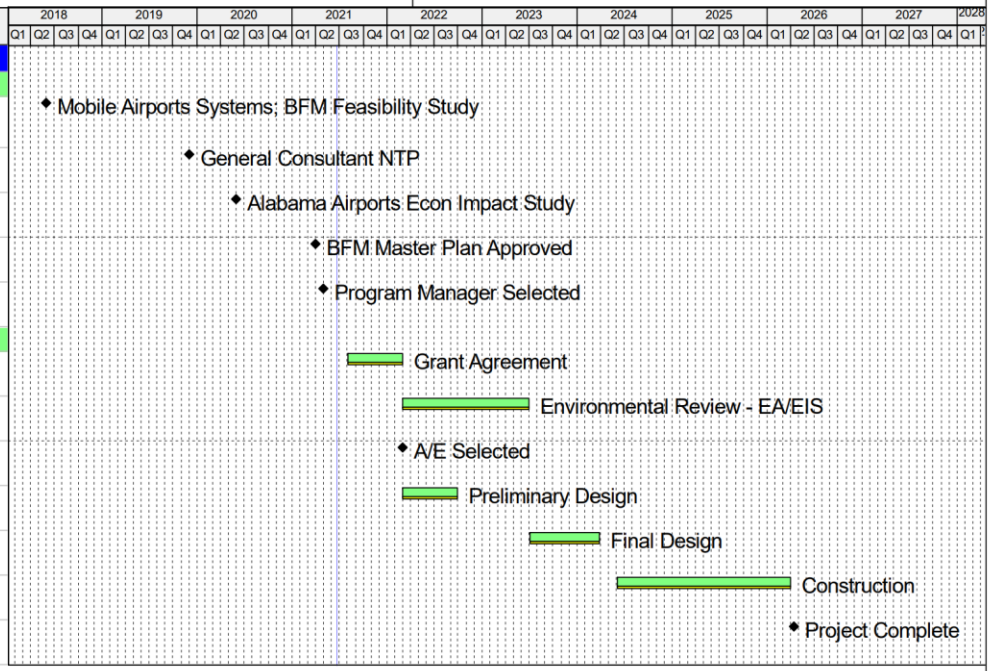


Figure 19: ASPA Project Schedule

B. MAA Project Schedule

Mobile MBF New Terminal

Activity Name	Start	Finish
Mobile MBF New Terminal		
Completed		
Mobile Airports Systems; BFM Feasibility Study		01-Jun-18 A
General Consultant NTP		02-Dec-19 A
Alabama Airports Econ Impact Study		01-Jun-20 A
BFM Master Plan Approved		01-Apr-21 A
Program Manager Selected		03-May-21 A
Not Started		
Grant Agreement	02-Aug-21*	28-Feb-22
Environmental Review - EA/EIS	01-Mar-22	30-Jun-23
A/E Selected		01-Mar-22*
Preliminary Design	02-Mar-22	30-Sep-22
Final Design	03-Jul-23*	29-Mar-24
Construction	03-Jun-24*	31-Mar-26
Project Complete		14-Apr-26



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

MOBILE MBF NEW TERMINAL

Page 1 of 1
Data Date: 21-Jun-21
Print Date: 21-Jun-21

* = *Software Constrained Date Indicator*

Figure 20: MAA Project Schedule

XII. PROJECT REQUIREMENTS

A. ELIGIBILITY

This 2021 Transportation Demonstration Program Grant Application for the Mobile Intermodal & Multimodal Freight Efficiency Project (the Project) is being jointly submitted by the Alabama State Port Authority (ASPA) – the owners of the public seaport terminals within the Port of Mobile – and the Mobile Airport Authority (MAA) – the owners of the Brookley Downtown Airport.

i. Applicant Eligibility

The applicants are eligible because the airport and the maritime port authority boundaries are immediately adjacent to each other, sharing a common boundary; the port uses a terminal railway; the airport is classified as a general aviation airport in the NPAIS for FY 2019 to 2023; and they are well within the 10-mile proximity criterion established in the FY 21 Appropriations Act and Section C of the Transportation Demonstration Program Grant's Notice of Funding Opportunity.

ASPA owns and operates its own terminal and switching railroad called Terminal Railway Alabama State Docks (TASD). This Class III railroad provides switching services for five Class I railroads and three regional railroads. FRA categorizes TASD as a "Switching and Terminal" Railroad and makes TASD operational and safety data available to the public on its website[20]. A search for either Terminal Railway Alabama State Docks or TASD safety data on this site will verify compliance with the terminal rail criterion established in the FY 21 Appropriations Act and Section C of the Notice of Funding Opportunity.

Documentation of BFM as a former military airport, as a general aviation airport in the NPIAS FY 2019 to 2023, and at a location not more than 10 miles from a maritime port authority that uses a terminal railway is provided to verify compliance with the former military airport criterion established in the FY 21 Appropriations Act and Section C of the Notice of Funding Opportunity.

ii. Cost Sharing Information

ASPA will contribute 20% of the total and individual Project element costs through its capital program and consistent with the terms of the Demonstration Grant Program. ASPA has relied extensively on private investment (APMT) to construct and expand the container terminal and will continue to do so for future container terminal expansions. ASPA also intends to rely extensively on private investment to develop the Logistics Park, possibly through a long-term lease or leases, or through a public-private partnership.

MAA will contribute approximately 42% of the total terminal project costs through city, county, state and airport revenue and capital programs, and consistent with the terms of the Demonstration Grant Program.

[20] Accident Data as Reported by Railroads

iii. Project Eligibility

The FY 21 Appropriations Act and Section C of the Transportation Demonstration Program Grant's Notice of Funding Opportunity states that for a project to be eligible, it must be located not more than 10 miles from at least two highways on the Interstate System.

The Port of Mobile, Alabama is connected to Interstate Highway I-165 right outside the main port's gates, with I-10 less than one mile away. The Port's Choctaw Point Complex is adjacent to I-10 and is less than five miles from the I-65/I-10 interchange. These two interstate highways converge in Mobile, with I-10 extending east to Jacksonville, Fla. and west to Los Angeles, Calif., while I-65 extends from Mobile north to the Chicago region.

Mobile Downtown Airport (BFM) is immediately adjacent and east of Interstate I-10, and approximately three miles to the east of Interstate I-65. Both highways are major national highway corridors connecting Mobile to the western U.S., east to Florida and north to Georgia, the Midwest and Northeast United States.

B. Selection Criteria

Selection Criteria	Description	Section/Page Reference
Expands Intermodal and Multimodal Freight and Cargo Transportation Infrastructure	The Project will improve the Port's container operations by providing a dedicated connection between the container terminal and the Garrows Bend Intermodal Container Transfer Facility (ICTF) and the adjacent Logistics Park, allowing for usage of newer technology for the movement of cargo between and among the container terminal, the Logistics Park, and the rail intermodal facility while reducing the truck distances between the port and regional logistics centers. The relocation of commercial airline service from MOB to BFM and construction of a New Terminal with FIS at BFM provides facilities for: increased air service; with resulting	Pages 15-18. D. Transportation Solutions i: ASPA Solutions

Selection Criteria	Description	Section/Page Reference
	increased freight capacity in passenger and dedicated cargo aircraft; FIS availability in new terminal; and adjacent to BFM Aeroplex.	Page 14 B. MAA Project Components, Page 23 MAA Transportation Solutions
Increases Efficiency of Freight Movements and Business Competitiveness	The Project reduces the distance between the container terminal and distribution centers by construction of a Logistics Park near the Port. The Logistics Park, which will be served through the Inter-Terminal Connector, will create additional efficiencies in freight movement by reducing the number of miles that import cargo travels in 40-foot containers. The BFM Airport project will put airline operations at the population, business and logistical center of greater Mobile; providing time, money and natural resource economies versus current use of MOB. An FIS at the terminal will provide efficient processing of goods and people, and in adjacency to Aeroplex tenant and related Port activities – a competitive asset for those users.	Pages 15-18. D. Transportation Solutions i: ASPA Solutions Page 14 B. MAA Project Components, Page 23 MAA Transportation Solutions
Improves intermodal and multimodal freight connectivity to enhance the overall efficiency and resiliency of the freight system, including whether the project expands choices	The combined Connector and Logistics Park will significantly improve the competitiveness of the Port of Mobile's freight gateway and its ability to serve inland markets. This in turn will increase the number of viable	

Selection Criteria	Description	Section/Page Reference
available to shippers and enhances competition among carriers.	choices for shippers and will improve the overall efficiency and resiliency of freight movement throughout the nation. Terminal capacity with integral FIS at BFM provides freight and passenger users one-stop processing location; it is synergistic with the business activities at the adjacent Aeroplex and Port and compounds the attractiveness of BFM, Aeroplex and the Port as an all in one logistics hub; it brings critical processing services closer to the centroid of regional customer location.	Pages 15-18. D. Transportation Solutions i: ASPA Solutions Page 14 B. MAA Project Components, Page 23 MAA Transportation Solutions