

Greater Charlotte Regional Freight Mobility Plan



Steering Committee Meeting 1 of 5

September 23, 2015

9:00 – 10:30 a.m.

Gastonia Conference Center, Room 205

AGENDA

I. Welcome & Introductions

- a. Welcome and Opening Remarks – Jim Prosser, Executive Director, Centralina COG
- b. Introductions
 - i. Name, Organization and / or Representation (e.g. MPO/RPO)
- c. *Discussion Question 1: What outcome(s) are needed to make the regional freight mobility plan a success?*

II. Background & Context

- a. Relationship between Freight Mobility and Economic Development – Victoria Rittenhouse, Community & Economic Development Coordinator, Centralina COG

III. Greater Charlotte Regional Freight Mobility Plan

- a. Purpose & Process – Pat Anater, Senior Project Manager, CDM Smith
- b. Outcomes - Recommendations for Systems, Policies, and Infrastructure– Pat Anater, Senior Project Manager, CDM Smith
- c. Status of analysis and project update – Pat Anater, Senior Project Manager, CDM Smith

IV. Steering Committee's Purpose & Role

- a. Purpose, Role & Logistics – Jessica Hill, Senior Planner, Centralina COG

V. Economic Development and Freight Mobility Table Discussion

- a. *Discussion Question 2: What are the current challenges impacting efficient freight movement in the Greater Charlotte Region?*
- b. Table Report Out
- c. *Discussion Question 3: What opportunities exist to support economic growth through freight mobility?*
- d. Table Report Out

VI. Closing Remarks & Next Steps

- a. Thank you for joining us in this regional initiative to ensure the economic competitiveness of the greater Charlotte Region – Jim Prosser, Executive Director, Centralina COG
- b. Next Freight Steering Committee meeting will be Thursday, December 10th at 9:00 am at Centralina Council of Governments' office.

525 North Tryon Street – 12th Floor
Charlotte, North Carolina 28202
Phone: 704-372-2416 Fax: 704-347-4710

www.centralina.org

Equal Opportunity/Affirmative Action Employer. Auxiliary aids and services available upon request to individuals with disabilities.

Greater Charlotte Regional Freight Mobility Plan



Scope of Work

To

**Develop a Regional Freight Mobility Plan
for the Greater Charlotte Region**

Project Scope of Work

Pre-Project Phase (Tasks are Responsibility of CCOG and Project Partners)

January - March 2015

- Identification/Assignment of Agency, Partners, Budget, Staffing and Resource Requirements
- Project Steering Committee Development (Policymakers, Agencies)
- Project Freight Advisory Committee Development (Private Sector)
- RFP Development and Release/Notice to Public and Interested Parties
- Selection of Preferred Responder and Contract Process
- Contract Approval/Project Kick-Off

Plan Development Phase (Consultant Tasks)

TASK 0: PROJECT MANAGEMENT AND STAKEHOLDER INVOLVEMENT PLAN

Good project management, communication, and quality processes yield efficiencies so that the Greater Charlotte Freight Mobility Plan is developed within schedule and budget, while producing a sound implementable product. It is critical to have a common understanding of the Plan development process between CCOG and the CDM Smith team. Though not specifically called out in the RFP, this step will provide the proper framework for communication and stakeholder involvement.

0.1: Develop a Project Management Plan and Stakeholder Involvement Plan

CDM Smith will develop a Project Management Plan (PMP) intended to set the framework for how the CCOG and the CDM Smith team will accomplish the mission of delivering the Freight Mobility Plan. The PMP serves as a single, low-cost, and convenient reference document for matters governing the administration and conduct of the study from NTP to close out of the project. CDM Smith will hold a standing biweekly status meeting and submit a written monthly progress report to CCOG. The team will also assist CCOG staff with coordination activities of the Coordinating Committee and Steering Committee and one staff member will participate in a total of fifteen (15) committee meetings as required.

Public and stakeholder outreach is critical to the successful completion of the Plan. Doing it right the first time will firmly establish a dialogue with industry representatives and interested citizens for years to come. Each must be approached differently. Industry representatives look at engagement as an investment of time. If the effort has the potential to benefit their organization, they will gladly participate in the process. Their perspective is short-term and focused on their businesses' geographic reach. Public sector agencies have a perspective that is long-term and locally focused. Just as a PMP is an important tool for overall management, a Stakeholder Involvement Plan lays out the approach specific to this important task for maximum results. The CDM Smith team will draft the Stakeholder Involvement Plan to include the approach to engage and use the information gleaned from the private and public sectors. Stakeholder outreach will be

completed by Prime Focus and will include surveys of the stakeholders identified through the Coordinating Committee, CCOG and the consulting team. This outreach will consist of web surveys and up to 10 phone interviews.

DELIVERABLES Project Management Plan, Monthly Progress Reports, Biweekly Project Team Meetings, and Stakeholder Involvement Plan

Task I: Analysis of Existing Conditions for Truck and Rail Freight Mobility in Region

Task 1 activities are focused upon the conducting of a thorough analysis of current conditions and operations related to truck and rail freight commodity flows within and through the Greater Charlotte Region. The Consultant should provide a detailed description of the process they are proposing to conduct the analyses, including national, regional or state data sources or other information that will be used to thoroughly develop the existing conditions assessment. A detailed freight economic impact analysis focused upon regional truck and rail freight activity in both urban and rural areas of the Greater Charlotte Region is the key deliverable under this task.

CDM Smith will conduct an analysis of the supply, demand, and performance of the regional truck and rail freight system. CDM Smith will use available data sources to identify, inventory, and assess the current condition and performance of the freight transportation system. As the movement of goods transcends jurisdictional boundaries, freight-related decisions can have wide-ranging impacts within and outside of the region. It is essential that the plan be consistent with other regional efforts so that freight priorities complement, or at least do not conflict with, other important initiatives. CDM Smith will review previous goods movement documents and other roadway and land use plans to determine the status of the recommendations presented within and the implications for freight plan development. Some of these are related to the support of economic development and funding initiatives which are important components of any regional freight plan. The analysis will include the following:

- National/global trends and issues that affect freight demand
- Description of the regional freight transportation system by mode
- Major freight generators
- Analysis of strengths and problems of the regional freight system
- Modal connectivity/intermodal issues
- ITS systems and incident management preparations
- Truck and freight safety
- Truck layover parking and overnight stay accommodations
- Analysis and synthesis of commodity flow data
- Incorporation of issues from the freight industry
- Identification of bottlenecks that cause delay and unreliability in freight movements (e.g. bridge load weight and height restrictions)
- Identification of specific infrastructure that is in state of disrepair or in need of replacement

Truck

1.1 Truck Freight Bottleneck Analysis-Interstate and Major Regional Routes

CDM Smith will identify and measure delay on freight-critical elements of the freight-reliant highway system in the CCOG region. The analysis will produce an estimate of delay, measured in terms of annual vehicle hours of delay, as well as travel time costs and vehicle operating costs. To accomplish this, CDM Smith team member American Transportation Research Institute (ATRI) will use their large and current trucking dataset to provide an analysis of the regional bottlenecks affecting truck freight.

1.2 Truck Origin/Destination Analysis and Identification of Critical Freight Corridors

ATRI will also use their data to analyze the freight and the origins and destinations of truck freight in order to identify those truck freight corridors that are critical to the movement of regional goods. In addition, the CDM Smith team will look at freight industry clusters which tend to be those more localized points of freight generation. This will allow us to look at potential local access issues for trucks which tend to be more acute and more easily rectified to improve overall truck freight mobility.

1.3 Truck Network Identification

The federal Moving Ahead for Progress in the 21st Century Act (MAP-21) requests that a Strategic Freight Network be identified in state freight plans. Though not required in regional planning, identification of the regional truck network is advantageous for the region itself and to inform the upcoming NC State Freight Plan with Charlotte regional priorities. This system will include the roadways needed for the efficient movement of goods and will assist in identifying the critical freight network in addition to other important freight infrastructure specifically for the CCOG region. “Tiering” the network will assist in a high level evaluation and provides focus for infrastructure and operational decisions. It is important to clearly define the tiers as guidance for criteria development and ultimately the identification of specific corridors. We will work with CCOG and the steering committee in finalizing the list of criteria with preliminary thoughts on broadly defining tiers below:

- Tier 1: National Primary Freight Network— The FHWA defined Highway Primary Freight Network (PFN) “based on an inventory of national freight volumes.”
- Tier 2: Remainder of the Interstates—Interstates that are not on the PFN such as I-495 and I-77 south of Charlotte.
- Tier 3: Critical Rural Freight Network—Critical rural freight corridors would include rural principal arterial roadways that are important to the movement of freight in the region by accommodating significant truck traffic and/or provide access to energy exploration, development, installation, or production areas, or connect the Tier 1 or Tier 2 network.
- Tier 4: Freight Connectors—Freight connectors tie into other multimodal nodes or links and support the connections to Tier 1, Tier 2 and Tier 3 networks, particularly in urban areas.

1.4 Truck Freight Economic Impact Analysis

MAP-21 calls for states to understand the economic role of freight transportation within their jurisdiction. This should be no different for smaller geographic areas such as the CCOG region. Freight touches all areas of the economy and understanding the freight and logistics industry status and its opportunities to prosper can help the CCOG and its partners remain economically healthy. Being the center of a diverse and robust economy, the Charlotte region depends on the reliability of the freight and logistics industries to supply critical raw materials and goods. Truck

freight specific economic impacts to the region will be estimated in order to determine overall economic impact of all freight-related industries.

1.5 Truck Parking Facility/Utilization Rate Analysis

The hours truck drivers can be behind the wheel dictate, in large part, the demand for parking. The Federal Motor Carrier Safety Administration (FMCSA) instituted revised hours-of-service regulations in December 2011 (amended December 2014) instituting mandatory 'down time.' Adequate truck parking facilities assist drivers in satisfying these requirements without parking on highway shoulders, ramps, or other inappropriate locations. The inventory of truck parking facilities include public rest areas and privately operated truck stops. The CDM Smith team will conduct a sample inventory of truck parking facilities in the study area and their capacities. Since peak truck parking times are in overnight hours, the team will conduct a sample spot count of truck parking utilization to determine the adequacy of the parking supply.

Rail

1.6 Overview of Rail Freight System and Identification of Key Corridors and Facilities

Just as the highway system, key rail freight corridors and facilities are critical to regional freight mobility and provide the potential for the Charlotte region to be a national trade hub. The CDM Smith team will identify the regional rail freight network and facilities and work with the Steering Committee and CCOG staff to develop criteria to for hierarchical tiers. This process will help to define the key regional rail freight corridors.

1.7 Existing Freight Rail System Bottlenecks and Constraints

Rail system bottlenecks and constraints affecting the regional rail freight system may be located inside or even outside the region. Capacity constraints in the Charlotte region may only be one component in constraining the potential for increased usage of the rail freight system. The CDM Smith team will take an expanded look at the freight rail system bottlenecks and constraints to identify those inside and outside the region that may hamper rail movements.

1.8 Existing Commodity Freight Flow and Train Volume Analysis

The CDM Smith team will analyze the expected freight growth of the region. This will entail an analysis of the existing and expected future commodity flows for rail freight (as well as trucking and aviation) and the ability of the regional transportation system to accommodate it. Unless more detailed data is available, we will rely on existing federal data from the Bureau of Transportation Statistics and the Federal Highway Administration to look at these commodity flows in terms of tonnage and value.

1.9 Rail Freight Economic Impact Analysis

Just as completed in Task 1.4 for truck freight, the CDM Smith team will complete an analysis of the economic impact of rail freight. We will complete both of these tasks using an input/output model estimate the direct, indirect, and induced impact resulting from the rail freight system within the study area.

DELIVERABLES Truck and Rail Existing Conditions Technical Memorandum

Task 2: Land Use, Facility, Infrastructure and Regulatory Gap/Future Demand Analysis

The Consultant must conduct a gap analysis under Task 2 that analyzes and evaluates existing and

planned freight-related land uses, including facilities and infrastructure, within the Region. Recommendations and findings from the gap analysis should be integrated into regional preferred growth scenarios developed and approved through the CONNECT OUR FUTURE project process recently completed by CCOG. The expected outcome resulting from the gap analysis task is a GIS-based map identifying areas and facilities within the region that are critical to ensuring efficient freight flows and mobility in the future.

As part of this task, the consultant will conduct a review of local unit of government development policies and processes that may impact the efficient delivery of goods by truck and rail in both the short and long term. Tools and strategies that assist regional policymakers and agencies in the development of freight land use policies and regulations consistent with future Preferred Growth and economic development scenarios should be included. In addition, Federal and state regulations that may impact or affect proposed local development policy and process changes should be identified.

Freight transportation and the land use that supports it are intrinsically linked. Many freight related land uses have been in place for many years as other development has grown around them creating potential conflicts. Other freight uses are newer, taking advantage of lower land costs but increasing the time and distance between suppliers and producers resulting in increased transportation costs that are passed along to consumers. This task will rely on the information provided by the MPO/RPO partners and assess the current land use gaps and future demand.

2.1 Inventory of Existing Regional Freight/Intermodal Land Use

To gain a true understanding of the issues, expected future freight will be evaluated incorporating planned projects to determine capacity constraints, bottlenecks, and deficiencies in the region's transportation infrastructure. Existing and future bottlenecks will be determined and the extent to which they impact freight movement analyzed. Industry clusters and the likely future locations of freight hubs will be provided by MPO/RPO planning partners and will be assessed to see if there are opportunities to mitigate potential freight transportation impacts.

2.2 Regional Freight Land Use Policies and Regulations

The CDM Smith team will conduct an assessment and analysis of the existing and future land use policies and local decision-making on freight and goods movement in the region which will include considerations of how local land use policies and regulations support or discourage freight activities and needs. Freight growth areas to experience land use planning challenges will be identified and general strategies proposed to address issues. Illustrative examples of strategies include: general recommendations to update future land use maps and minimum site design standards to mitigate land use conflicts. Based on the inventory of region freight and logistics facilities provided by the MPO/RPO planning partners, the needs assessment and economic analysis the CDM Smith team will assess the impact of freight and goods movement on land use in the region.

2.3 Intermodal and Truck Parking Facility Capacity

Task 1.5 will provide an estimated inventory for public and private truck rest facilities and their estimated utilization. Intermodal facilities will also be examined related to their proximity to adequate truck parking and their needs.

2.4 Road Network Corridors (Interstate and Local)

As described in Task 1.3, tiered highway corridors will be identified and will include Interstates and local roadways.

2.5 Rail Network Corridors (Dedicated and Shared Use)

As described in Task 1.6, tiered freight rail corridors will also be identified.

DELIVERABLES Land Use, Facility, Infrastructure, and Regulatory Gap/Future Demand Technical Memorandum

Task 3: Best Practices in Freight Mobility Efficiency, Safety and Technology (ITS)

A peer review of 2-3 similarly-sized regional models of freight mobility best practices in industry and government should be conducted for Task 3. This deliverable should identify best practices in the areas of modal technology trends and applications utilized by the private sector to improve freight throughput and increase efficiencies, land use, regulatory and planning practices. For comparative purposes, the review should include regions with similar geographic attributes as Greater Charlotte and focus on practices to attract private industry, improve commodity flow and provide regional economic benefits. In accordance with preliminary MAP-21 guidance, applicable Industry technological improvements in the areas of Intelligent Transportation Systems (ITS), safety and security should also be identified, as well as potential opportunities for public/private partnerships and initiatives within the Greater Charlotte Region based on study findings.

Reliability and efficiency of the freight system is paramount to users of the system. Safety is an important responsibility of the owners of the freight transportation system such as DOTs, railroads and airports. This task will focus on identifying those best practices to efficiently and safely move goods throughout the region.

3.1 Peer Review of National Freight Mobility Plan 'Best Practices' Models

The CDM Smith team has conducted many national reviews of best practices on a multitude of freight transportation topics for the Federal Highway Administration, the Transportation Research Board, and state departments of transportation, which provides efficiencies for this task. We will consolidate our current and on-going research to identify those that are most appropriate for the CCOG region, based on the goals for the Greater Charlotte Freight Mobility Plan and review other best practices conducted by others.

3.2 Future Technology Trends and Applications

In addition to the national scan of current best practices, we will also conduct a scan of innovative and emerging trends for CCOG's understanding and the potential application to (and implications for) the Plan.

3.3 Freight Safety and Security Features

Freight movement have very different safety and security requirements due to the weight, value, and sensitivity of the goods being moved. The CDM Smith team will look at the safety and security features of the system and their impact on the movement of goods in the region.

3.4 Opportunities for Public/Private Partnerships

With freight being the movement of predominantly private sector goods, by private carriers on public sector infrastructure, there is an inherent opportunity for public/private partnerships (P3). For instance, truck parking facilities show real P3 promise in terms of safety for the public and a revenue stream for a private entity. Opportunities such as these and other initiatives will be explored.

DELIVERABLES Regional Freight Mobility Best Practices Technical Memorandum

Task 4: Prioritize List of Regional Needs

The critical regional deliverable resulting from findings in previous tasks of the study is a staged, prioritized list of freight infrastructure, process and policy needs for use by Greater Charlotte agencies. A staged, prioritized list of regional freight mobility needs approved by the Project Steering Committee is the expected outcome of this task. The list shall include recommendations for policies and projects (infrastructure, safety improvements, etc.) for inclusion within regional planning processes such as the CTP, MTP and ultimately the NC/SC State Transportation Improvement Plans (STIP). Recommended needs should be identified as either a short-term (3-5 year) or long-term (6-25 years) action based on a determination by the Consultant gained from study findings, stakeholder inputs and regional assessments.

MAP-21 encourages the development of comprehensive freight plans to understand and improve the condition and performance of the freight network. The law provides a unique opportunity for states to identify freight projects that may qualify for an increased level of federal funding participation. Though North Carolina and South Carolina do not currently have MAP-21 compliant state freight plans, the Greater Charlotte Freight Mobility Plan can inform those plans, providing the advantage of identifying a prioritized list of freight specific projects and policies. Working with CCOG staff and the Coordinating Committee, freight improvement projects, policies, and strategies will be identified. An implementation plan providing guidance on project timing, funding, policy initiatives, and regional coordination will also be developed.

4.1 Prioritize List of Regional Needs (for inclusion in CTP, MTP and STIP processes)

This task will provide information about a specific set of multimodal needs and/or deficiencies that are strongly perceived as, or have been shown to be, impediments to freight mobility and economic competitiveness for the region. These opportunities and needs will serve as the building blocks for the identification of recommended freight projects. Priority setting criteria, established with the input of the Coordinating Committee, will help guide a recommended ranking.

Infrastructure projects will be evaluated to determine their impact (relative to the performance measures identified) to the freight network given the current and expected future conditions. The CDM Smith team will develop prioritization filters that reflect the goals, infrastructure performance and condition, stakeholder feedback, population and employment data, commodities, and freight generator data. The filters will provide a framework to identify a prioritized list of freight project for the region. Improvements will be sorted by time frame, short and long term and will include planning –level cost estimates and statements of the projects' freight benefits. In addition to traditional capital improvements, we will identify operational projects as well. Small scale projects such as those related to maintenance, signing, and improved geometry will also be a focus for the team.

4.2: Policy Recommendations

Policies will also be identified that assist in achieving the goals for the region. In past studies, the CDM Smith team has evaluated a multitude of freight policies and made strategic recommendations on how small policy changes could have a large effect on improving goods movement. The team will identify the players and policies that impact the region's freight network. This task will identify regional and statewide freight planning efforts and describe their role in the future. After analyzing this information, the team will identify several policy level strategies that could be employed to advance the region's multimodal freight system.

DELIVERABLES Priority Freight Projects and Policies Technical Memorandum

Task 5: Develop Regional Freight Performance Measures in Accordance with USDOT/MAP-21 Recommendations and State Strategic Freight Plan Requirements

This effort will develop a set of freight specific performance measures that center on justification of infrastructure and policy decisions, such as asset utilization and repair, total shipments, safety hotspots, economic development, chokepoints/bottlenecks, etc.

5.1 Determine Quantitative Metrics to Support MAP-21 and NCDOT Requirements

MAP-21 requests at least one quantitative performance measure for each Plan goal. In this effort, CDM Smith will review the national, state, and regional freight priorities and objectives and align these with the region's current and future data collection and performance monitoring intentions. To accomplish this, CDM Smith will work with CCOG staff to review existing national, SC and NC state and regional performance measurement capabilities/resources for freight, and work with the Steering Committee to evaluate measurement options and select a final set of measures. This effort will be centered on those related to performance, condition and safety of the freight system.

5.2 Define Regional Quantitative Data Collection Processes and Partner Responsibilities

Because performance measures will be defined to take advantage of existing data, those agencies that are responsible for the data collection will be identified as the providers of the information for performance measures. If performance measures are selected that require additional data collection, those agencies best suited for that type of data collection will be identified.

Under Task 5, the Consultant must develop a targeted, quantitative set of regional freight performance measures and metrics that closely follow preliminary guidance resulting from the MAP-21/National Freight Strategic Plan development process and which address regional transportation that support regional economic development goals. While it is understood that final guidance and recommendations from the USDOT MAP-21 process will not be issued until Fall 2015, preliminary guidance suggests data and tools that support outcome-oriented, performance-based evaluations will need to be developed for use in developing future Statewide Strategic Freight Plans and for the assignment of federal funding priorities in the freight sector. Based on information collected and analyzed from previous tasks, it is expected that the Consultant will identify specific quantitative/metric-gathering processes and assignments that regional partners, public and private, can undertake in the future so that freight performance data collected within the Greater Charlotte Region is responsive to both federal/state requirements and regional economic development goals.

DELIVERABLES Freight Performance Measures Technical Memorandum

Task 6: Develop Draft and Final Greater Charlotte Freight Mobility Plan Report

A Draft Regional Freight Plan will be developed that includes a detailed discussion of activities performed during the project, outcomes resulting from the project's tasks and activities, and a thorough analysis of project findings. The Draft Plan document must include recommendations and strategies for short and long term regional priorities to improve truck and rail freight mobility in the Greater Charlotte Region. The Consultant will present the Draft Regional Freight Mobility Plan for Project Steering Committee review and approval no later than December 1, 2016. Once the Draft Mobility Plan has been approved by the Project Steering Committee, a Final Greater Charlotte Regional Freight Mobility Plan document must be submitted to CCOG no later than December 15, 2016.

6.1 Develop Draft Plan/Report with Findings and Recommendations

CDM Smith will prepare a draft and final Greater Charlotte Regional Freight Mobility Plan and Executive Summary based on the deliverables produced from Tasks 1 through 5. The Plan will emphasize infrastructure improvement recommendations and include implementation strategies encompassing possible new programs or institutional coordination or cooperation. The final report will be produced both in hard copy and in electronic format. Presentations of the Plan will be given at public meetings, and to the CCOG Board and Plan Steering Committee.

Implementation of the plan is critical. The CDM Smith team will develop an implementation plan that outlines very specific actions the CCOG and its partners can take so that the plan is a pathway to regional growth. This task will serve as the last chapter of the plan and could serve as an independent document for use by CCOG and its member MPOs. Our approach will capitalize on its extensive experience developing pragmatic, actionable implementation plans. We will develop an implementation plan that outlines specific actions to be taken, and will be constructed to serve as a guide for investment and future freight activities.

6.2 Present Draft to Project Steering Committee for Review/Comment

The CDM Smith team will present the final Plan to the Steering Committee and address comments for incorporation, documenting comments and how they were addressed.

6.3 Present Draft at Public Meetings for Review/Comment

The CDM Smith team will present the final Plan at public meetings (the number to be determined by CCOG and the Steering Committee) and address comments for incorporation (as appropriate).

6.4 Submit Final Report incorporating comments to CCOG

The CDM Smith team will develop a database of comments, how they were addressed, and the final Plan to the CCOG for implementation, and public and regional partner consumption.

DELIVERABLES Hard and electronic copies of the Draft and Final Greater Charlotte Regional Freight Mobility Plan, Executive Summary, and pertinent electronic data files and documents

Post-Project Phase (Tasks are Responsibility of CCOG and Project Partners with limited participation of Consultant as necessary)

November-December 2016

- Plan Formally Presented to Local Government Partners for Endorsement/Approval
- Targeted Individual Briefings As Required
- Project Close-Out
- Incorporation of Approved Plan Elements into Regional/State Plans and Processes

Task	2015							2016												2017		
	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Task 0: Project Management and Stakeholder Involvement																						
Task 0.1: Develop a Project Management Plan and Stakeholder Involvement Plan																						
Task 1: Analysis of Existing Conditions for Truck and Rail Freight Mobility in the Region																						
Task 1.1: Truck Freight Bottleneck Analysis-Interstate and Major Regional Routes																						
Task 1.2: Truck Origin/Destination Analysis and Identification of Critical Freight Corridors																						
Task 1.3: Truck Network Identification																						
Task 1.4: Truck Freight Economic Impact Analysis																						
Task 1.5: Truck Parking Facility/Utilization Rate Analysis																						
Task 1.6: Overview of Rail Freight System and Identification of Key Corridors and Facilities																						
Task 1.7: Existing Freight Rail System Bottlenecks and Constraints																						
Task 1.8: Existing Commodity Freight Flow and Train Volume Analysis																						
Task 1.9: Rail Freight Economic Impact Analysis																						
Task 2: Land Use, Facility, Infrastructure and Regulatory Gap/Future Demand Analysis																						
Task 2.1: Inventory of Existing Regional Freight/Intermodal Land Use																						
Task 2.2: Regional Freight Land Use Policies and Regulations																						
Task 2.3: Intermodal and Truck Parking Facility Capacity																						
Task 2.4: Road Network Corridors (Interstate and Local)																						
Task 2.5: Rail Network Corridors (Dedicated and Shared Use)																						
Task 3: Best Practices in Freight Mobility Efficiency, Safety and Technology (ITS)																						
Task 3.1: Peer Review of National Freight Mobility Plan 'Best Practices' Models																						
Task 3.2: Future Technology Trends and Applications																						
Task 3.3: Freight Safety and Security Features																						
Task 3.4: Opportunities for Public/Private Partnerships																						
Task 4: Prioritize List of Regional Needs																						
Task 4.1: Prioritize List of Regional Needs (for inclusion in CTP, MTP and STIP processes)																						
Task 4.2: Policy Recommendations																						
Task 5: Develop Regional Freight Performance Measures in Accordance with USDOT/MAP-21 Recommendations and State Strategic Freight Plan Requirements																						
Task 5.1: Determine Quantitative Metrics to Support MAP-21 and NCDOT Requirements																						
Task 5.2: Define Regional Quantitative Data Collection Processes and Partner Responsibilities																						
Task 6: Develop Draft and Final Greater Charlotte Freight Mobility Plan Report																						
Task 6.1: Develop Draft Plan/Report with Findings and Recommendations																						
Task 6.2: Present Draft to Project Steering Committee for Review/Comment																						
Task 6.3: Present Draft at Public Meetings for Review/Comment																						
Task 6.4: Submit Final Report Incorporating Comments to CCOG																						

Greater Charlotte Regional Freight Plan

Committee and Stakeholder Engagement DRAFT

