



SCOPE OF WORK

TASK 1 BASE MAPPING

Kittelson & Associates, Inc. (KAI) data collection and mapping efforts will be seamlessly linked to the analysis performed in the subsequent tasks. The KAI team will conduct a corridor-wide data collection and mapping effort that will utilize a combination of GIS data sets. Much of the data gathered and mapped will focus on capturing existing conditions across a variety of discipline areas. In addition, the KAI team will also assemble data sets for future conditions including future travel conditions predicted in the Phase II study.

The KAI team will focus on data sets to identify potential conflicts with various resources and to avoid them as considering station locations and concept engineering. Data collection and mapping efforts will focus on five categories:

- Demographics
- Property and Land Use
- Travel Conditions
- Environmental and Cultural Resources
- Utilities

Collecting data sets across multiple jurisdictions can be time consuming and cumbersome. Data collection will focus on available GIS type data. No traffic data collection is expected. To minimize requests to each jurisdiction and to maintain an organized approach, the KAI team will send a precise checklist of data needs to each jurisdiction at the start of the project. The KAI team will also set up an approach to file sharing site for each jurisdiction to directly provide files to the project team. This effort will conclude with a robust suite of data and mapping that will inform analysis in this and future processes.

1.1 Demographics

The KAI team will compile demographic information to understand the location of residents and break down the corridor population by income, race, age, and other factors that may influence transit use. The KAI team will also map demographics, focusing on categories that may be relevant to Federal funding sources, such as New and Small Starts, and State funding programs such as SMART SCALE. The KAI team will highlight these areas as important for funding applications. The KAI team anticipates mapping demographic data such as:

- Non-English-speaking populations
- One- or zero-vehicle households
- Low-income communities
- Minority populations

1.2 Property and Land Use

Property and land use data can be gathered from a variety of sources. The KAI team will utilize open source parcel data from all four jurisdictions. The KAI team will also gather data from each jurisdiction regarding zoning and future land use. The initial base mapping will include:

- Parcels
- Existing Land Use
- Existing Zoning
- Future Land Use

Once the ROW needs are identified through the Concept Engineering process in Task 4, the KAI team will import the alignment into GIS and perform a spatial analysis to intersect the alignment with the base mapping data listed above. This process will help the team efficiently highlight potential conflicts along with potential areas of opportunity and will be more fully addressed in Tasks 3 and 5.

1.3 Travel Conditions

A variety of travel data, from available data sources for this corridor. The KAI team will map existing travel conditions for the corridor by accessing Virginia Department of Transportation (VDOT) counts, utilizing available transit ridership data, and reviewing previous study efforts. The KAI team will also map infrastructure such as sidewalks, bicycle infrastructure and bus stops. In addition to existing conditions, the KAI team will also map projected travel conditions from previous studies. The KAI team expect to map:

- Longitudinal and Employment Housing Dynamics (LEHD) data
- ADT
- Future traffic forecasted volumes
- Current transit ridership
- Projected future transit ridership
- Current transit stops
- Sidewalks
- Bicycle infrastructure

1.4 Environmental, Cultural and Natural Resources

The KAI team will gather data from available data sources to begin identifying potential environmental, cultural and historic resources along the corridor. The KAI team will work with VEGIS datasets from the Virginia Department of Environmental Quality and the National Wetland Inventory database to identify, at a high-level, potential environmental constraints. The KAI team is also familiar with cross-referencing local, state and federal datasets to document existing historic resources. At minimum, the KAI team would expect to gather data for and map:

- Park and Recreation Facilities
- NPS land
- Cultural resources
- Historic properties
- Hazardous waste generators

- Resource Protection Areas
- Wetlands and Floodplains

This data will be utilized in Tasks 3, 4 and 5 to inform where stations and facilities should be placed to minimize impacts and project costs and when station locations are better defined, concept alternatives are formed and ROW needs are assessed. In addition to informing the current process, mapping these data is the first step in future environmental evaluations. Environmental, cultural and historic resources will be identified to inform future NEPA, Section 106 and Section 4(f) processes.

1.5 Utilities

The KAI team will also work with utility providers to identify infrastructure within and adjacent to the ROW. The KAI team will identify as much utility infrastructure as possible without performing field reconnaissance with the purpose of identifying and avoiding potential conflicts with future transportation infrastructure.

Task Deliverables

- GIS data sets including ROW and adjacent properties
- Mapping of GIS data
- Technical memorandum summarizing the data structure, sources, and existing conditions

TASK 2 COMPILE DEVELOPMENT AND HIGHWAY PLANS

2.1 Highway Plans

A variety of plans exist to expand the transportation network in the study area. Some of these plans are relatively broad to an area such as the general approach to new roadway in the Tysons or Seven Corners areas. There are also plans for specific facilities such as the expansion of Route 7 being planned in the Tysons area. The KAI team will identify multimodal plans in the corridor and document those as part of this study. As part of this effort, the KAI team will attempt to articulate how these projects will interact with the proposed BRT system. The KAI team will also identify the proposed timing of these projects to determine if the temporal element of the project creates or potentially resolves a conflict.

2.2 Development Plans

In addition to mapping highway plans, the KAI team will also map proposed land development projects in the corridor. The KAI team will document the characteristics of each proposed project such as density, types of land uses, vehicle parking, and proposed connections to adjacent roadways and ultimately proposed BRT stations. In addition, the KAI team will also determine if these sites have completed the land entitlement process where a site plan has been determined or if the site is expected to develop in the relatively near future. This process will also be linked to the ROW identification in Task 5 where the parcels identified for development will also be evaluated to determine what, if any, property might be necessary to support the future BRT facility.

2.3 Utilize the Development Process to Gain ROW

The KAI team will identify methods through the development review processes for each of the municipalities along the Route 7 Corridor study area, the City of Alexandria, the City of Falls Church, Arlington County, and Fairfax County, to gain property and potentially funding to support the BRT project. Our first step will be to define the BRT project, with as much specificity as possible in one or more of the guiding planning documents in each municipality. Once these guiding documents are adopted, the municipalities can then require development projects to set aside property for use in the BRT project.

Task Deliverables

- Technical memorandum identifying relevant highway plans and how they will interact with the Route 7 BRT project along with a map of the plans.
- Technical memorandum identifying relevant land development plans along with a map of the plans.
- Technical memorandum articulating an approach to utilize the land development process to gain the necessary ROW.

TASK 3 STATION LOCATION RECOMMENDATIONS

The KAI team will undertake a thorough evaluation of where to site stations for the proposed BRT system. The KAI team recognize that determining station locations is an iterative process that balances the needs for pedestrian access to the stations, efficient travel along the corridor and supporting economic development. Defining the stations is a critical step in the process because they are the access points and the widest part of the BRT system. Previous efforts have identified general station locations but through this effort the KAI team will identify more precise locations and types of stations. Our first efforts will be to share the KAI team's extensive knowledge on the most relevant best practices from around the country and modern BRT systems worldwide. The focus will be on different station types based on the context of the investment and project goals. The KAI team will identify and program different station types that fit the future desired context and outcomes and will then develop station templates for each station type. Rigorous analysis will be performed along the corridor to identify optimal locations for station locations as it relates to a variety of concerns such as land use and utilization based on property values, multimodal access, and potential economic benefits. The KAI team would also expect that this limited effort will not result in final sites for all stations. For such locations the KAI team will document considerations for these stations such that future efforts may further study and ultimately identify the locations for these sites.

3.1 Share BRT Station Best Practices and Develop Station Types

The KAI team will rely on its extensive log of experience across North America to compile an illustrative set of BRT station examples and station types. The KAI team will work with NVTC to identify relevant potential station types based on the existing and future proposed context of the station area. As the KAI team considers station types, the KAI team may also conduct interviews with some of the municipalities and operating agencies to determine the intended outcome and potential design features and program elements that should be considered for each station type.

3.2 Develop BRT Station Templates

The KAI team will consider up to five (5) station templates for median-running as well as curb-running BRT facilities. The KAI team will also consider station templates for other non-exclusive BRT ROW treatments. For median-running facilities, the KAI team will consider stations in the center, requiring left-side door boarding, and stations between the BRT running way and the vehicle travel lanes for right-side door boarding. As with many modern BRT systems, boarding from both sides of the vehicle would provide the most flexibility during operations.

The KAI team will develop up to five (5) station templates. This will include:

- Combined stations, where both directions of travel are loaded in the same part of the intersection, as well as stations which are off-set, where the station for one direction of travel is on one side of the intersection and the station for the other direction of travel is on the other side of the intersection.
- Near and far side station locations, taking into account the need for rider access as well as the need for vehicle turning lanes.
- Recommendations for what type of station should be considered in various settings

As the KAI team advance the station templates, the KAI team will consider the potential for shared use of the stations by other buses as well as station level ridership. This will necessitate a consideration of sizing of stations as well as the

potential to consider the curb height of the station. Exclusive use of the running way by the proposed BRT service allows for unique considerations for level boarding whereas a facility shared with local buses limits these options. In addition, the KAI team will consider how buses will exit the running way. If a center running alternative is chosen and the facility is shared with other services, consideration will need to be made at a conceptual level without detailed analysis for how these buses will enter and exit the facility. This is most typically done at station areas. The KAI team will consider these types of elements as the team creates station templates.

In addition, the KAI team will consider ancillary needs such as layover areas and transfer facilities. Some station types, in particular end-of-line stations, have different needs than a typical station. Previous planning efforts have established the Mark Center as a transfer facility. The KAI team will evaluate these efforts and suggest changes where necessary.

Fairfax County is in the process of defining how BRT will move through the Tysons area. The KAI team will coordinate closely with that effort to accommodate those plans. For more typical stations, the KAI team will develop basic transfer facility templates to show ROW needs for such facilities.

3.3 Evaluate Proposed Station Locations

The KAI team will evaluate and overlay the previously noted data and mapping from Task 2 as station locations are considered. The KAI team will start with previously identified station locations and determine if these general locations are viable, and if so, define the station location with a higher level of specificity. This will include coordinating with the effort led by Fairfax County in the Tysons area to site station locations. Based on the previous station locations, coordination with the Tysons effort, and the information gathered as part of the previous tasks, the KAI Team will identify preliminary station locations. The station locations will be based on operational spacing requirements and evaluation of candidate stations will be based on a comprehensive GIS data analysis and on the following criteria:

Existing Transit Ridership

As part of the effort for identifying future station locations, existing ridership patterns will be evaluated. The KAI team will review boarding and alighting patterns for existing transit service taken from previous studies or using existing APC data. In addition, the KAI team will consider ridership projected for future scenarios at the station level from the Phase II study. This will help determine potential size of the station. It will also help determine the access needs for each station. Larger passenger volumes may necessitate higher capacity access and egress.

Area Land Use

The KAI team will evaluate land use around potential stations. The KAI team will document current land use, current zoning, and future land use from County and City plans as part of the GIS mapping. As part of this activity the KAI team will also identify areas that would support high frequency, fixed guideway transit. In addition, this activity will build on the identification of development parcels in Task 2 by attempting to qualify the potential for development of station areas in the future. The KAI team will consider developments identified in Task 2 and utilize parcel level GIS data to identify additional parcels which may have the opportunity for redevelopment. These sources will be combined to better understand where there is a higher likelihood to gain ROW for the BRT facility.

Station Access Assessment

Access to the station area by riders will also be assessed. Ridership levels are directly related to residents, office locations, and commercial areas immediately adjacent to the stations. As such, riders will need to access the stations from these land uses. The KAI team will evaluate the adjacent area to determine if access and egress from the candidate station sites will be sufficient and safe. This analysis will focus on connections to other transit modes, Metrorail and bus, as well as pedestrian and bicycle access.

Potential Environmental or Cultural Conflicts

A variety of environmental, cultural and historic resources will be mapped in Task 2. This task will consider potential conflicts from the location of the station. In general, the purpose of this effort is a fatal flaws analysis for station sites

which identifies major concerns that might eliminate a specific site from consideration as a station area such as historic resources which would need to be removed.

Efforts will be made to avoid these resources. However, if it is not possible to avoid conflicts, the conflicts will be noted as concerns to be addressed as part of future NEPA, Section 106, or Section 4(f) processes.

Preparation for New/Small Starts

The KAI team will also consider criteria related to a New or Small Starts application at station locations. While this process will not include an initial rating for New or Small Starts, where feasible, data collected in Task 2 will be considered as to how it would positively or negatively influence a New or Small Starts application. The KAI team will consider a variety of demographic and land use characteristics including transit dependent populations, households served and adjacent employment.

3.4 Stakeholder Workshops

It is important that the process for defining station locations is well informed by relevant municipal staff. Two half day workshops with up to four (4) staff will be held to gather feedback from the municipal partners. The first of these sessions will focus on station typologies. It will consider issues of how many station typologies are necessary and identify appropriate station sizes and layouts. It will also consider station locations. The KAI team will utilize the previously noted data and analysis to propose station locations and station types appropriate to the potential sites. The second workshop will consider, among other things, how the station types fit into the concept layouts. These workshops will be joined with the conceptual engineering workshops discussed in Task 4.

The workshops will include members of the Technical Advisory Committee (TAC). The KAI team will look to this group for guidance in decision making.

Task Deliverables

- Technical memorandum identifying multiple station types and templates based on their program elements use context
- Technical memorandum with analysis of station areas and recommendations of specific station types and sites
- Technical memorandum with station locations, envelopes for station/stop locations, and planning level design guidelines for stations

TASK 4 CONCEPTUAL ENGINEERING

The KAI team will conceptually lay out the alignment for the entire corridor length. The KAI team will build on the results of the Phase II study where a potential running way, appropriate for each area, was identified. The KAI team will review these results and where necessary, suggest changes. The KAI team's intent will be to define a single alignment, generally exclusive lane median or curb-running BRT facilities, for each character area and focus on providing more detail on a single alignment. However, this may not be appropriate for each character area and the KAI team may need to provide layouts for multiple alignments where there are conflicts. The TAC will provide direction through two workshops. At the end of this process the KAI team will have concept drawings that can be compared to property boundaries so that the necessary ROW for the project can be defined in Task 5.

4.1 Identify Design Elements

Before the KAI team begins the conceptual engineering process, the KAI team will consider the elements necessary, in addition to the BRT facilities, for cross sections in various land use contexts. These elements may include sidewalks, bike facilities, tree boxes, café space or other features in the ROW. The corridor will vary from place to place so the KAI team will start by identifying up to six (6) potential character areas within the corridors. These areas will have similar land use characteristics and expectations of the transportation network. Character areas are related to land use rather than

running way type. As such, some character areas will include multiple running way cross sections. When character areas are defined, the KAI team will identify the necessary facilities to be included in each character area. Each character area will be unique and as such can be expected to have different elements within the ROW. Some of these areas will be auto focused and others will be pedestrian focused. Each character area and the elements necessary will be discussed with the stakeholder group in the first workshop noted in Task 4.4.

4.2 Compare Alignment Types

The KAI team will build on the Phase II approach and generally consider two basic alignments of the BRT running-way within the selected alternative; median running service where the exclusive BRT facilities are between the two through movements of the roadway and curb running service where the exclusive BRT facilities, including Business Access Transit (BAT) lanes are at the edge of the roadway. However, in some portions of the corridor, exclusive BRT facilities are unlikely to be implemented due to extreme ROW conflicts. To address these areas, the KAI team will also consider non-exclusive running way treatments, that may include transit signal priority at a conceptual level. As noted in the Phase II study, the BRT alignment shifts between various locations across the corridor. The KAI team will also consider how these shifts in running way will be addressed.

The alignments will be compared to each other for each character area. The KAI team will consider a variety of criteria in the comparison such as ROW needs, urban design and function, potential impacts on vehicle operations, transit running time, as well as conflicts with environmental resources or with other infrastructure. While this work will not involve running a detailed operations simulation, it will be informed by best practices in traffic and transit operations planning. It will also be informed by ongoing work by Fairfax County to define BRT facilities in the Tysons area. The KAI team will coordinate closely with this effort.

During the first workshop noted in Task 4.4, this information along with the elements noted in Task 4.1 will be presented and the BRT alignments for each character area will be selected. Where it is clear to the stakeholder group the alignment, the conceptual engineering will be advanced. However, in character areas where the alignment is not clear to the stakeholder group, the KAI team will suggest the most impactful alignment on ROW be selected as it will give the most future flexibility.

4.3 Concept Layout

The KAI team will provide conceptual engineering to define and detail the potential alignment or multiple alignments in some areas. The conceptual engineering will include the preparation of a layout of the alignment, including basic roadway and BRT running way features, identifying elements such as intersection modifications, proposed right-of-way extents and proposed modifications to structures. Engineering concepts will be presented in a complete set of conceptual design drawings at a scale suitable to understand the service definition and identify the capital costs associated with the alternative. The challenge will be to focus design resources on the areas of greatest benefit to the project. The KAI team will focus the conceptual engineering effort on identifying areas with conflicts, turns, transitions and stations, using the conceptual engineering process to determine how to avoid or address these areas. The concepts, which will be representative of approximately ten percent design drawings, will be of sufficient detail to afford all stakeholders a competitive order of magnitude comparison for capital outlay and operations and maintenance cost.

4.3.1 Design Elements

The concept design drawings will synthesize relevant information gathered as part of Tasks 1 through 4. The layouts will also include a high-level assessment of storm water management requirements.

BRT design elements will include:

- Station locations and footprint
- Guideway layout/geometry
- Intersection and signal modifications
- Proposed right-of-way extents

- Proposed modifications to structures
- Proposed roadway reconfigurations and known re- grading/retaining wall locations
- BRT operations and maintenance facilities

Background mapping features will include:

- Extent of pavement, curb, sidewalks and other pathways
- Buildings
- Approved/planned new development
- Right-of-way
- Structures and bridges
- Major utilities and drainage features
- Topography as available from jurisdiction GIS databases

4.3.2 Safety Assessment

As part of the conceptual engineering process, the KAI team will provide a high-level overview of safety for riders at the waiting areas as well as motorist and bicyclist along the corridor. The KAI team will evaluate basic widths and geometries to determine if there are potential safety concerns in the concept. Specifically, the KAI team will check for adequate space for pedestrian access and circulation and for refuge and buffer areas within the stations. The concept engineering process will look to layout spaces which communicate to other users of the street space that transit riders and pedestrians are primary users of the space. The KAI team will also assess the road and running way element for safety concerns. This effort will not include traffic impact analysis.

4.3.3 Conflict Minimization

In the conceptual engineering process, the KAI team will utilize the data gathered in Task 1 to identify potential environment and infrastructure conflicts early in the process before any level of detailed design is completed. The KAI team will consider environmental, cultural and natural resources in a manner noted in the previous task where the KAI team will layout concepts in a manner to limit potential concerns in future NEPA, Section 106 or Section 4(f) processes. In addition, the KAI team will look for potential conflicts with other transportation infrastructure and utilities, specifically considering parking facilities and other transportation infrastructure that will need to be reconstructed or replaced. Our approach maps these elements with the concepts so that the KAI team can determine where conflicts may exist. The KAI team have taken this approach in other projects our team members have completed.

4.4 Stakeholder Workshop

Two sets of stakeholder half day workshops will be held in coordination with the station workshops in Task 3.4. These workshops will be focused on the TAC. The first workshop will focus on the approach to design considering elements which should and should not be included in each character area. It will consider elements of the cross section such as sidewalks, bicycle facilities and urban design.

The second workshop will focus on trade-offs in the conceptual layouts, comparing needs such as maximizing travel efficiency against minimizing ROW impacts. In this workshop the KAI team will present initial layouts, including the station type identified for each station stop. When these issues and other needs are presented within the context of the constraints and project schedule, it will be important for NVTC and its partner agencies to reach compromises and continue advancing the BRT program, understanding that the physical configuration can evolve over time.

Task Deliverables

- BRT running way lane configuration alignments with options for curb and/or median running
- Typical sections by character area including dimensions
- Design drawings of the corridor in CAD and a brief technical memo identifying:
- BRT running way lane configuration alignment with options for curb and/or median running in select areas
- Geometries of proposed roadway elements with dimensions labeled
- Vehicle and pedestrian crossings and related protections
- Impacts to parking and overlap with known utilities
- Storm water management requirements
- Impacts to transportation infrastructure that could require reconstruction or replacement

TASK 5 DETERMINE ROW NEEDS

In addition to the conceptual engineering, the KAI team will determine the ROW need by laying concept engineering drawings over parcel level City, County and State data and assessing the additional property needed outside the existing ROW. As previously noted, specific design decisions regarding the location, either center or side, of the exclusive BRT lanes will not be made during the current task. Additionally, specific station configurations are also beyond the purview of this task. As such, there is the potential for variation between the planned ROW and the future ROW needed once the project is fully designed.

The KAI team will identify the needed ROW by performing a spatial analysis in GIS where the KAI team intersect the concept designs with the GIS parcel. Property outside the ROW but necessary for the BRT system will be determined to be the necessary ROW. The necessary ROW will have the needed parcel size assessed and along with ownership and location information, will be transformed into a list for use by the municipalities. These properties will be mapped and compared to the development sites noted in Task 2 to make a rudimentary assessment of how much of the necessary ROW is included in an existing entitled property and how much of the necessary ROW is in properties expected to be developed in the relatively near future.

As noted in Task 4, effort will be made to avoid potential conflict with various environmental, cultural and natural resources along with other infrastructure. Where conflicts cannot be avoided, they will be documented. The KAI team will document specific conflicts with other transportation infrastructure, utilities as well as environmental, cultural and natural resources.

Task Deliverables

- List of required ROW parcels including size, owner and location
- Technical memorandum identifying ROW conflicts.

TASK 6 CAPITAL COSTS

Capital cost estimates will be assembled to follow the FTA prescribed standard cost categories utilizing FTA cost worksheets. These costs will be assembled for the most impactful potential alternative defined in Task 4.

The KAI team will utilize the capital costs task to identify capital investments that yield meaningful transportation benefit at minimal cost.

Task Deliverables

- Technical memorandum with cost worksheets and relevant assumptions.

TASK 7 FINAL REPORT

The final report for Phase III will be developed so that it is clear and easy to understand for the non-specialist. A graphically rich executive summary will encapsulate the main findings of this effort and serve as a reference for BRT program development in this corridor. The project team will complete technical memoranda and appendices for various study elements. These will become part of the report that will be completed upon conclusion of the process which will include documentation of the workshops as well as the project team meetings.

One important feature of the Report is an implementation phasing plan that will outline a structure for prioritizing and advancing project elements. The implementation plan will allow for significant adaptability while preparing the jurisdictions for the next stages in the process to implement the project.

With the limited scope of the Phase III effort, there will be decisions left unmade. In addition to documenting all conclusions made in this process, the KAI team will clarify where conclusions have not been drawn. The KAI team will frame the context of these decisions such that following processes can pick up where Phase III concludes.

Task Deliverables

- Draft and Final Report

TASK 8 PROJECT MANAGEMENT

The KAI team will provide bi-weekly meetings via telephone with the project manager and if warranted the project management team. The project management team includes the jurisdictional members of the Technical Advisory Committee (TAC). The bi-weekly meeting will include a project update and identify any up-coming deliverables or activities. Progress reports will be required monthly and can be included with the submitted invoices. The progress reports will outline on-going activities and identify what cost have been incurred. The report should identify any issue or concerns and present the project budget burn rate.

The KAI team will plan on meetings with the project management team after completion of each task. There will be a total of six (6) meetings. The purpose of these meetings will be to allow the project management team oversight and input on the technical memoranda as well as upcoming activities. Any additional meetings the KAI team wants to hold, must be included in the scope and budget of this project. There will be no additional funds available outside of the project's budgeted amount for project management related meetings no specifically identified in this task.



Schedule

	MONTHS											
	1	2	3	4	5	6	7	8	9	10	11	12
TASK 1: BASE MAPPING	[Dark Blue Bar]											
Demographics	[Light Blue Bar]											
Property and Land Use	[Light Blue Bar]											
Travel Conditions	[Light Blue Bar]											
Environmental, Cultural, and Natural Resources	[Light Blue Bar]											
Utilities	[Light Blue Bar]											
TASK 2: COMPILE DEVELOPMENT AND HIGHWAY PLANS		[Dark Blue Bar]										
Highway Plans		[Light Blue Bar]										
Development Plans		[Light Blue Bar]										
Utilize the Development Process to Gain ROW		[Light Blue Bar]										
TASK 3: STATION LOCATION RECOMMENDATIONS		[Dark Blue Bar]										
Share BRT Station Best Practices and Develop Station Types		[Light Blue Bar]										
Develop BRT Station Templates			[Light Blue Bar]									
Evaluate Proposed Station Locations			[Light Blue Bar]									
Stakeholder Workshops					[Light Blue Bar]							
TASK 4: CONCEPTUAL ENGINEERING					[Dark Blue Bar]							
Identify Design Elements					[Light Blue Bar]							
Compare Alignment Types						[Light Blue Bar]						
Concept Layout						[Light Blue Bar]						
Stakeholder Workshops								[Light Blue Bar]				
TASK 5: DETERMINE ROW NEEDS								[Dark Blue Bar]				
ROW Needs Analysis								[Light Blue Bar]				
TASK 6: CAPITAL COSTS									[Dark Blue Bar]			
Capital Costs									[Light Blue Bar]			
TASK 7: FINAL REPORT										[Dark Blue Bar]		
Final Report										[Light Blue Bar]		
TASK 8: PROJECT MANAGEMENT	[Dark Blue Bar]											
Project Management, Coordination, Progress Reports	[Light Blue Bar]											