

Executive Summary

The study will produce eight (8) priority projects that include concept designs and planning-level cost estimates. The resulting concepts will be sufficient to position the projects for consideration in the MaineDOT Work Plan, PACTS' Transportation Improvement Program (TIP), and/or other implementation programs.

In addition to priority projects, this study will provide a Needs Assessment that identifies a series of recommendations that MaineDOT and local jurisdictions can pursue for future implementation.

Project Background

U.S. Route 302 is an important arterial in the Greater Portland Council of Governments (GPCOG) region. The corridor falls within the Portland Area Community Transportation Systems (PACTS) boundary as it passes through the Town of Raymond, the Town of Windham, the City of Westbrook, and the City of Portland. It is referred to as Roosevelt Trail in Raymond and Windham, Bridgton Road in Westbrook, and Forest Avenue in Portland.

In addition to being a significant regional thoroughfare, Route 302 also provides important local connectivity. Early analysis suggests that non-work-based travel and local circulation is a very important part of Route 302's function. This is particularly the case where Route 302 serves a variety of diverse and evolving land uses, such as in Portland or North Windham. This study must balance the contextual necessity of safe and comfortable multimodal access along Route 302 with the regional vehicle connections that the corridor will continue to provide.

The varying contexts along Route 302 are reflected in the *PACTS Regional Complete Streets Design Guidebook*. Under this guide, Route 302 is primarily classified as a Major Corridor street type with two Village Center classifications in Portland and a Rural designation in Raymond. The MaineDOT Context Classifications that apply to this corridor include Urban and Suburban, with the Urban context applying in all of Portland (Forest Avenue) and the Suburban context used on some segments in Westbrook, Windham, and Raymond.

In *Connect 2050*, the region's long-range transportation plan, almost all of Route 302 in the PACTS region is a Priority Corridor with at least one Priority Center in each jurisdiction, indicating communities' desires for growth and development at key nodes. At the same time, *Connect 2050* mentions that Route 302 experiences notable congestion in some locations. This points to the need to balance historical vehicle mobility demands with changing land use conditions.

Safety is perhaps the biggest part of this equation, since several segments of Route 302 that are designated Critical Safety Corridors and Critical Safety Intersections (as identified in *Vision Zero Greater Portland*) overlap with the Priority Centers, Priority Corridors, and identified congested areas. This suggests that conflicts in these evolving high-activity areas are contributing to safety problems that this study must analyze and address. While most of the Route 302 corridor in this study is part of the low-speed National Highway System (NHS) network, the sections that have a posted speed of 50mph or above do not qualify as part of the low-speed NHS network. The low-speed NHS network carries a reduced set of controlling design criteria that improve flexibility for safety improvements, while other areas may have different needs or require varying design solutions.

To address these issues at the regional level while coordinating with local efforts and considering varying needs along the corridor, PACTS approved \$439,500 in Task 4 of its 2026 to 2027 Unified Planning Work Program (UPWP) for this Route 302 Corridor Study.

Project Goals

The 2026 to 2027 UPWP includes the Route 302 Corridor Study ("the study") as a core project within Task 4: Plan for the Future as "a multimodal analysis from Raymond to Portland that will generate a prioritized list of candidate projects with conceptual plans and cost estimates." As such, this project is implementation-focused and aims to use analysis, plans, policies, and public input to develop a specific set of projects. The set of projects must include sufficient detail to allow PACTS and the study's jurisdictions to advance them to preliminary design and/or construction, either through inclusion in the MaineDOT Work Plan or through other funding sources.

It will be important for this study to coordinate projects of varying scales, from routine paving to larger initiatives, like the Westbrook Route 302 reconstruction project, *North Windham Moves*, and *Forest Avenue Redesign*.

In addition to providing projects for immediate implementation, the study itself must complete analyses that provide a solid framework for future improvements to Route 302. Ideally, this means that the study's partner jurisdictions and regional stakeholders

can use the study through at least 2030 to help identify projects that will improve the corridor in line with *Connect 2050* goals.

Scope of Work

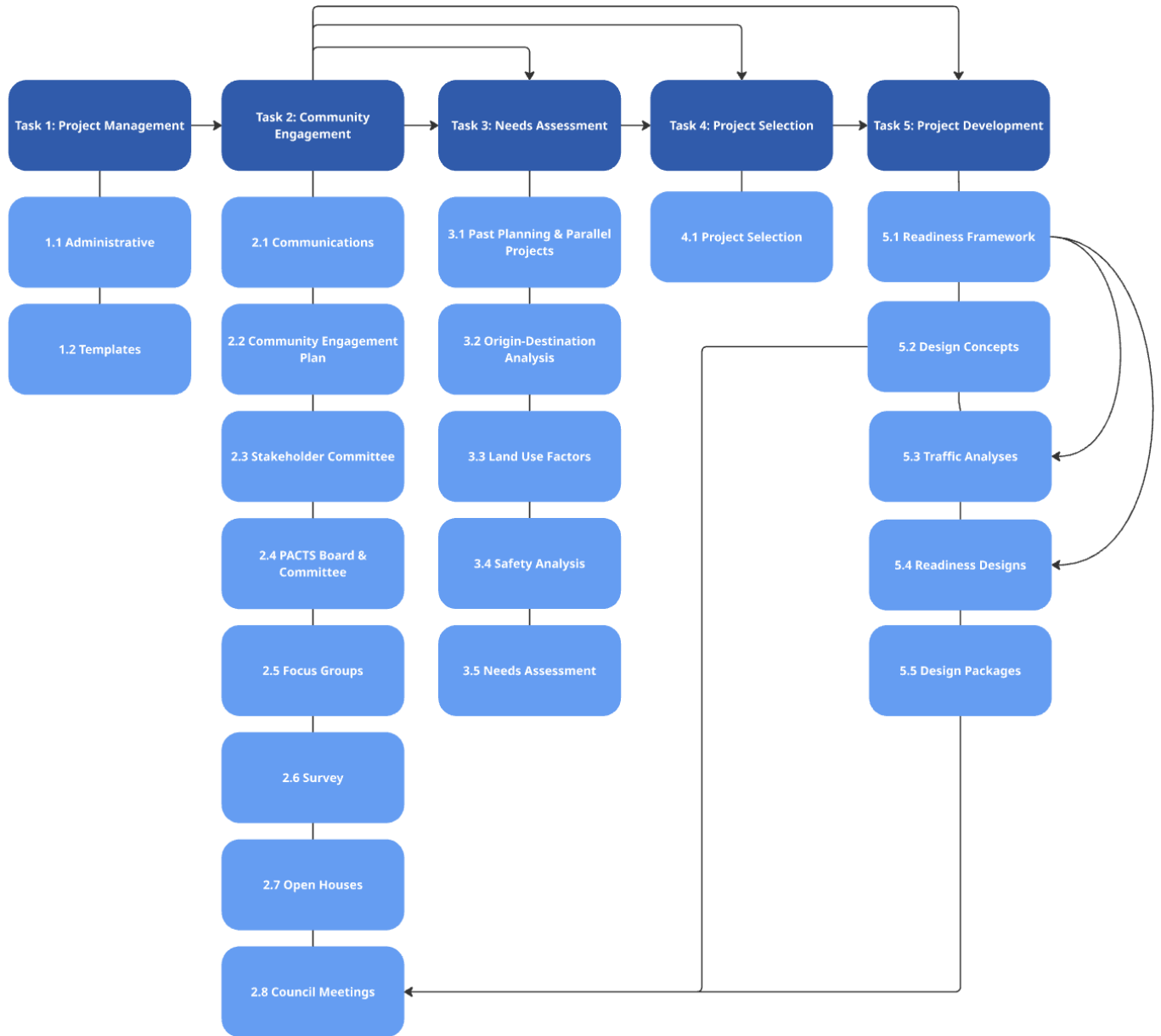


Figure 1 - Scope of Work Tasks Flowchart

Task 1: Project Management

1.1 Administrative

This subtask accounts for regular administrative tasks such as invoicing, scheduling, budgeting, and meetings or internal coordination that do not relate to any of the other tasks in this scope of work.

1.2 Templates

GPCOG staff will develop a project style template and branding style that will be used to develop all deliverables. The purpose of this is to establish design expectations up front and maintain visual and formatting consistency for project materials. The overall goal of this is to make it easy and efficient for deliverables to be assembled into a final report or incorporated as appendices.

Task 2: Community Engagement

2.1 Communications

GPCOG staff will develop a web page for the study as part of the existing GPCOG website. The purpose of this website will be to host important project information and updates and to act as a public-facing repository for important documents. External communications such as press releases, social media announcements, flyers, etc. must link to this web page to ensure it is a “one-stop” source of project information.

GPCOG staff will also develop an ArcGIS Online web map for the project that can be used for internal coordination. Its setup and organization must also allow for the option to create public-facing ArcGIS Online apps for external data sharing platforms and community engagement tools such as comment maps.

2.2 Community Engagement Plan

GPCOG staff will create a succinct Community Engagement Plan that does the following:

1. Identifies engagement activities that will be included and why.
2. Provides an anticipated schedule of engagement activities.
3. Describes the results and key findings of each engagement activity after they occur.

To avoid creating a Community Engagement Plan that is overly detailed and therefore unresponsive to changing conditions, the Community Engagement Plan must be

provided in a concise format that is easy to refer to and edit as the study progresses. GPCOG staff will also document engagement results directly within the Community Engagement Plan to ensure it remains an active document.

Overall, the Community Engagement Plan will communicate the “what, why, and when” of engagement activities and document the results of those activities.

2.3 Stakeholder Committee

The success of this study will rely on regular communication and coordination with the Stakeholder Committee, which is defined as the group of stakeholders whose organizations have ownership of and decision-making authority over the study corridor. GPCOG expects the core Stakeholder Committee to include the City of Portland, City of Westbrook, Town of Windham, Town of Raymond, and MaineDOT.

GPCOG staff will also consult Regional Transportation Program (RTP) and Greater Portland Metro as important stakeholders throughout the project. GPCOG will rely on communities to identify other stakeholders.

GPCOG expects to hold meetings with the core Stakeholder Committee at least once per month through July 2027, for an estimated total of between 15 and 20 meetings. Meetings may be cancelled if there is limited content and/or limited opportunity for discussion. These meetings will be a mix of virtual and in-person formats depending on Stakeholder Committee availability and meeting agendas.

2.4 PACTS Board and Committee

It will be important for GPCOG staff to solicit feedback from its governing boards and committees. This subtask accounts for GPCOG staff attendance and presentations at three Regional Transportation Advisory Committee (RTAC) meetings and three Policy Board meetings.

2.5 Focus Groups

GPCOG staff will hold up to four focus group meetings to get targeted feedback from other groups or as a forum to discuss specific issues that arise during the planning process. The details of this task may change depending on the Community Engagement Plan and needs identified by the Stakeholder Committee, although GPCOG expects to hold at least one public transportation focus group.

2.6 Survey

The Community Engagement Plan will determine whether a survey or comment map will be helpful for this project. If either a survey or a comment map is deemed useful, the Community Engagement Plan will also determine the overall format and details of the survey, with the caveat that FlashVote, SurveyMonkey, and ArcGIS Online comment maps will be the primary tools available for consideration.

If GPCOG staff elects to administer a survey, the timing of the survey should align with Task 3 to help gauge community needs and preferences early in the project.

2.7 Open Houses & Pop-Ups

GPCOG staff will facilitate and hold open houses and pop-up events to gather relevant feedback that will inform needs, recommendations, and design concepts. The Community Engagement Plan will determine the details, timing, and location of these events.

For budgeting purposes, GPCOG staff assumes the following activities, providing a balance of pre-advertised events with spontaneous engagement opportunities that meet people where they're at:

- Up to four open houses, targeting one per community (these are in addition to the council meetings described below)
- Up to four pop-up events, targeting one per community
- Up to two virtual public meetings

Engagement activities will also provide adequate opportunities for seasonal residents to participate and offer feedback, recognizing that this demographic is an important part of some communities along the study corridor.

2.8 Council Meetings

Projects recommended in Task 5 depend on local support and would thus benefit from council feedback. The local councils to be engaged include:

- Portland City Council
- Westbrook City Council
- Windham Town Council
- Raymond Select Board

The consultant team will assist GPCOG and local jurisdiction staff to coordinate and bring forward the projects developed through Task 5. Concepts must first be introduced

to local elected officials at the concept design phase in task 5.2 to ensure early feedback on design options and decisions.

Task 2 Deliverables

- Website hosted on existing GPCOG site
- ArcGIS Online web map adaptable for internal and external communications
- Community Engagement Plan
- Three (3) Policy Board meetings and three (3) RTAC meetings
- Up to four (4) focus groups
- Up to four (4) open houses
- Up to four (4) pop-up events
- Up to two (2) virtual public meetings
- Council meetings, approximate number to be identified in the Community Engagement Plan (municipal staff and consultant support is expected)

Task 3: Needs Assessment

3.1 Past Planning and Parallel Projects

A review of past planning and parallel projects will be essential to achieve the following:

1. Carry forward goals and findings from previous planning efforts to enhance outcomes and avoid redundancy.
2. Coordinate with existing projects to identify opportunities for collaboration.

GPCOG staff will document this review in a concise matrix format accompanied by a brief narrative that can be easily referred to throughout the study. This deliverable may remain separate from the final Needs Assessment deliverable in Task 3.5.

3.2 Origin-Destination Analysis

An analysis of traffic flows and characteristics will be important in determining how people are using Route 302 today and how it may be used in the future. While a comprehensive origin-destination analysis is not within the scope of the study, GPCOG staff will use TomTom, StreetLight, and Census data sources to answer questions like the following:

- Where is traffic using Route 302 coming from and going to? What does this tell us about the corridor's needs?
- What can available trip characteristics like trip lengths, trip distances, and trip purposes tell us about travel habits and needs for those using the corridor?
- What are travel speeds like along the study corridor, and what can this tell us? *(to be informed by the GPCOG Congestion Management Plan)*

- What are current transit ridership patterns and what does this tell us?
- What can we learn about the corridor's multimodal travel patterns and needs using available data?
- Are there demographic and income characteristics available that tell us more about who is using the study corridor and what their needs might be?

Addressing these questions early in the study can help identify needs and inform the community engagement process.

Findings from this analysis will be documented as part of the Needs Assessment memo in Task 3.5. The deliverable may be provided as an interim memo for review as long as the interim memo is able to be efficiently incorporated into the final Task 3.5 deliverable.

3.3 Land Use Factors

Most of this study's partner jurisdictions are updating their comprehensive plans. Additionally, the Town of Windham and the City of Portland are planning for land use changes that will affect the study corridor's use in the future.

It will therefore be important to document where these changes are expected to occur and to assess the implications of those changes for the study corridor. This will require the following activities:

1. An identification of where along the corridor's land use is expected to change the most and what type of changes are expected.
2. How these changes might affect the use and interpretation of the Origin-Destination Analysis from Task 3.2, especially regarding multimodal demand, transit demand, and roadway trip characteristics.
3. How these changes inform the Needs Assessment in Task 3.5.

Findings from this analysis will be documented as part of the Needs Assessment memo in Task 3.5. The deliverable may be provided as an interim memo for review as long as the interim memo is able to be efficiently incorporated into the final Task 3.5 deliverable.

3.4 Safety Analysis

Safety is a top priority. MaineDOT has identified safety concerns at several locations along the corridor, including at the intersections of Colonial Park Drive, Albion Road, and Duck Pond Road. In addition, through *Vision Zero Greater Portland*, GPCOG identified Critical Safety Corridors and Critical Safety Intersections in several locations. Recent GPCOG staff analysis has also shown that fatal and serious injury crashes have continued to occur along the study corridor since 2022, which was the end of the *Vision Zero Greater Portland* data collection timeframe. Generally, these serious and fatal

crashes are concentrated around Critical Safety Corridors and Critical Safety Intersections.

GPCOG recognizes that safety analyses of various types have been conducted at the state, regional, and local levels. As such, this study should not undertake a comprehensive safety analysis that risks duplicating these efforts. Rather, this task should focus on analyzing and documenting the following:

1. The most recent available crash trends along the study corridor and if they differ from trends identified in previous analyses.
2. High-need safety locations along the study corridor, using designations in existing safety analyses as the go-to areas of initial focus.
3. Speed data analysis where necessary and practicable, including by leveraging existing corridor-wide speed data and potential site-specific speed data collection.
4. Recent crash trends, speed data, and insights from MaineDOT Data-Driven Safety Analysis tools can tell us about safety needs in high-need areas.
5. What safety interventions would be most impactful in high-need locations.

Findings from this analysis will be documented as part of the Needs Assessment memo in Task 3.5. The deliverable may be provided as an interim memo for review as long as the interim memo is able to be efficiently incorporated into the final Task 3.5 deliverable.

3.5 Needs Assessment

The Needs Assessment will identify multimodal needs and propose accompanying recommendations that will provide a basis for future efforts and projects. GPCOG staff will incorporate the results of Task 2 and Tasks 3.1 through 3.4 when identifying needs and recommendations. Some of the resulting recommendations will be carried forward for further development as described in Tasks 4 and 5.

This task will focus on multimodal needs that advance Connect 2050 priorities. This may include, but is not limited to, considerations such as:

- Increasing safety
- Creating streets for everyone
- Enhancing pedestrian and bicycle access
- Improving public transportation service, operations, and access
- Incorporating green infrastructure
- Addressing congestion
- Supporting anticipated land use changes and compact development
- Facilitating freight movements

- Promoting improvements in Access Focus Areas
- Protecting habitat and minimizing pollution

The resulting Needs Assessment must identify individual, location-specific needs and recommendations to address those needs. Recommendations will be organized and phased in a manner that allows communities to identify and pursue potential low-cost, high-impact improvements alongside longer-term recommendations. Some systemwide needs may also be included where they represent important opportunities for implementation or follow-up actions.

GPCOG staff will also coordinate closely with the Stakeholder Committee on the geographic distribution of needs and recommendations. The goal of this coordination will be to identify needs across all four communities while avoiding the concentration of project opportunities in a limited area.

Overall, the goals of Task 3.5 are to:

1. **Identify** location-specific transportation needs and recommendations based on data analysis, community input, Stakeholder Committee feedback, and professional judgment.
2. **Support** identified needs and solutions by referencing analysis factors involved, including goals, strategies, and findings from previous planning efforts.
3. **Consider and mitigate** potential unintended consequences of any proposed solutions in accordance with the GPCOG Transportation Access Analysis and Action Plan.
4. **Document** identified needs and recommendations.

Finally, in accordance with #3 above, the level of detail for each need and recommendation must be sufficient for use in subsequent Tasks 4 and 5. For example:

- *Sufficient detail:* The crash history, evolving land uses, short trip lengths, and lack of pedestrian accommodations in the vicinity of X intersection demonstrate a need for sidewalk enhancements at X and Y locations and traffic calming using interventions X, Y, or Z.
- *Insufficient detail:* The crash history, evolving land uses, short trip lengths, and lack of pedestrian accommodations in the vicinity of X intersection demonstrate a need for safety improvements.
- *Sufficient detail:* Transit ridership, trip characteristics, and community feedback in X area demonstrate a need for improved crossing opportunities at the existing bus stop location X and Y, and better pedestrian connections from bus stop location X and Y to adjacent destinations X, Y, and Z.

- *Insufficient detail*: Transit ridership, trip characteristics, and community feedback in X area demonstrate a need for better bus stop accommodations and connections.

The results of this task must be documented in a matrix or similar format accompanied by brief narratives where applicable.

Task 3 Deliverables

- Past Planning and Parallel Projects Review (matrix)
- Needs Assessment Memo documenting corridor needs, supporting analysis, and associated improvement strategies.

Task 4: Project Selection

4.1 Project Selection

This task will select eight (8) of the recommendations from Task 3 for concept and design development.

GPCOG staff will work closely with the Stakeholder Committee to identify project selection criteria. These criteria will be used to select the needs and recommendations from Task 3 that are most critical for further development in Task 5.

The selection criteria will be developed cooperatively and should consider factors such as expected benefits, community feedback, feasibility, order-of-magnitude cost, and coordination with existing efforts. The criteria will be applied through a scoring system or similar methodology to ensure transparency in the selection process.

GPCOG staff and the Stakeholder Committee will also work together to promote the equitable geographic distribution of projects that align with regional goals by developing selection criteria that accommodate the corridor's diverse contexts. This approach will avoid a project identification process that results in too many projects concentrated in a limited area or focuses too narrowly on certain types of improvements, while also recognizing that municipal resources are limited and that communities may have varying capacity to advance multiple projects concurrently.

GPCOG staff will document the criteria, scoring, or assessment process and the resultant eight (8) projects in the Project Selection Memo deliverable.

Task 4 Deliverables

- Project Selection Memo documenting the selection criteria, scoring results, and identification of eight (8) projects that will advance to concept development.

Task 5: Project Development

5.1 Readiness Framework

Advancing the implementation goals of this study requires documentation of MaineDOT project readiness standards. This documentation will enable the study to develop projects selected in Task 4 to a level of detail that allows for potential inclusion in the MaineDOT Work Plan, which is an essential avenue for implementation. Documentation of these readiness standards may also enhance the study's efficiency by avoiding the production of overly detailed designs.

Additionally, clarification on MaineDOT readiness standards will benefit the region by helping GPCOG project development and technical assistance efforts meet MaineDOT requirements. It is also expected that the MaineDOT level of readiness would position the resulting projects well for other sources of grant funding.

This task will ideally be completed early in the study schedule, prior to the commencement of Task 4 at a minimum. The results of this task will be documented in a "Readiness Framework" memo that will directly inform the remainder of Task 5.

5.2 Design Concepts

With consultant support, GPCOG staff will lead the development of design concepts for the eight (8) projects selected in Task 4. In some cases, GPCOG staff may choose to prepare more than one concept alternative where conditions or feedback dictate the need for multiple options.

GPCOG staff expects the design concepts to consist of:

- **Map-based visualizations** that include the locations and general design of recommended improvements.
 - The "general design" may be conveyed through renderings, AI tools, map annotations, best practice photographs, or other concept-level material as appropriate.
- **Typical cross sections or similar visualizations** that include necessary concept-level facility or improvement specifications.
- **Identification of possible unintended consequences** of any proposed solutions in accordance with the GPCOG Transportation Access Analysis and Action Plan.
 - Where unintended consequences may exist, recommended corrective actions or mitigation measures must be identified as well.

- **Planning-level cost estimates** that allow GPCOG staff and the Stakeholder Committee to assess feasibility and timeframes.
 - Consultant support will be required for this item. The cost estimates, serving as “preliminary opinions of probable construction costs,” will include itemized, recommended improvements, using unit costs and quantities consistent with standard categories (e.g., excavation, paving, sidewalks, drainage, signals, and mobilization).
- If MaineDOT deems necessary, **consultant-led traffic analyses** from task 5.3 will be incorporated into the design concepts as resources allow.

The overall goals of the design concepts in this task will be to:

1. Provide the Stakeholder Committee and the community with clear design concepts for feedback.
2. Provide enough information and detail for the design concepts to be developed further in Task 5.4.

5.3 Traffic Analyses

MaineDOT may require traffic analyses for some of the design concepts developed in Task 5.2 to inform concept development, aid project readiness, and address feasibility. The consultant will lead this task using [MaineDOT's traffic Modeling Guidebook](#) and coordinating with MaineDOT as needed. In addition, any traffic counts required will follow [MaineDOT Data Collection Guidelines](#), which designate several “Factor Groups” across the study corridor that carry the traffic count timeframes outlined below:

- **Factor Group I:** Route 302 from I-295 to Riverside Street
- **Factor Group I+II:** Route 302 from Riverside Street to Fosters Corner
 - For these two sections, traffic data collection is required from the week of April 1 to the week of November 15.
 - *Data collection windows may be further limited if impacted by public or private school facilities.*
- **Factor Group II:** Route 302 north of Fosters Corner
 - For this section, traffic data collection is required from the week of June 15 to the week of September 15.
 - *Data collection windows may be further limited if impacted by public or private school facilities.*

This task will result in up to three (3) consultant-led traffic analyses.

5.4 Readiness Designs

The consultant team will develop detailed designs (“readiness designs”) for the eight (8) concepts developed in Task 5.2 to the MaineDOT readiness standards documented in Task 5.1, not to exceed 25% design. GPCOG staff will work with the consultant to determine the appropriate number of readiness designs based on project needs, available budget, and the type/complexity of projects.

The consultant will create the readiness designs in computer-aided design (CAD) software or another appropriate design platform. The consultant team will revise the existing planning-level cost estimates if needed, in addition to documenting necessary changes from Task 5.2 concepts that may arise from technical constraints so that GPCOG staff can discuss these changes with the Stakeholder Committee.

5.5 Design Packages

The readiness designs must be provided in a user-friendly format that allows non-technical audiences to understand what is included in the designs, their expected costs, and their anticipated benefits and impacts. This is best achieved by “packaging” each of the concepts from Task 5.2.

For example, the graphics and descriptions included in conceptual designs from task 5.2 can be formatted alongside cost information and important changes, considerations, traffic analysis results, or design visuals resulting from tasks 5.3 and 5.4. This packaging approach will provide a ready-made format for the projects to be submitted for Work Plan consideration or for various other state, local, or federal grant or implementation opportunities.

Task 5 Deliverables

- Readiness Framework memo, documenting MaineDOT readiness requirements for design concepts produced as part of this study.
- Up to three (3) consultant-led traffic analyses
- Eight (8) design concepts
- Eight (8) readiness designs and cost estimates
 - Including: design files in original formats
- Eight (8) Design Packages

Project Schedule

