

APPENDIX A
City of Sanford
SCOPE OF WORK

July 26, 2019

Planning and Feasibility Study

1. Scope of Work

Background and Purpose:

In March 2019, the City of Sanford approached the Maine Department of Transportation (MaineDOT) about developing a planning and feasibility study to evaluate and analyze safety and mobility improvements to compliment local economic development efforts. These economic development efforts include drainage innovations, high-speed optical fiber, trail planning, utility investments, business development and market analyses, Brownfields revitalization, private investments, and safety and traffic analyses. This study will help coordinate these efforts and develop safety and mobility improvement plans that build upon the work that's already being done.

The proposed area of the PPI Agreement study is shown below and includes:

- Route 109/Main Street between Route 202/Lebanon Street and Emery Street;
- Washington Street between Route 109/Main Street and High Street; and
- School Street from Washington Street to Elm Street.

Study Area City of Sanford

May 22, 2019

1 inch = 500 Feet

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Task 1 – Project Kick-Off & Team Meetings

The consultant team will meet with the study team including representatives from the City of Sanford and MaineDOT for a kick-off meeting to begin a collaborative planning process as follows:

- Identify and understand local issues;
- Identify and understand relevant state and federal regulatory requirements;
- Finalize scope of work;
- Set schedule with milestones;
- Develop purpose and need; and
- Discuss coordination and collaboration with City officials and other stakeholders working on various revitalization efforts within the downtown and adjacent areas.

In addition to the kick-off meeting, the consultant team will organize 1-2 additional team meetings to gather feedback at critical milestones throughout the study.

Task 2 – Data Gathering

The consultant team will collect available data and information provided by the City of Sanford, MaineDOT, and other stakeholder groups identified by the City. Data collected will include, but not be limited to:

- Comprehensive plan and associated surveys that will be developed during a similar timeframe as this study;
- Market analysis of the study area (i.e., residential, retail, restaurant, office, light industrial, support services, recreational opportunities) which will be developed in conjunction with the study.
- General engineering efforts to date.
- Recently collected data, including:
 - Traffic data (AM and PM turning movement counts) collected on 4/23/19 at the intersections of (1) Main/Washington, (2) Washington/River/High, (3) Main/Lebanon/Winter, (4) Maine/Roberts, and (5) Washington/School.
 - Crash data (collected from DOT and City of Sanford).
 - HDR forms – Established design criteria for the major roadways.
 - Survey – In MicroStation (DOT) format.
 - Base Plans – Draft project title sheet and plan view cut sheets showing survey, existing right of way, center alignments and stationing.
 - Horizontal Baselines – Draft alignments and stationing for streets within the study area
 - Existing traffic modeling – Draft development of existing conditions traffic modeling (but this task is incomplete).
- Available land use and economic development information that could affect transportation in the study area provided by the City of Sanford.
- Other relevant reports, studies, and policies, such as the Central York County Connection Study.

Task 3 –Summary of Concurrent work and Upcoming Efforts

The consultant team will summarize concurrent and upcoming economic development initiatives, performing additional community research, as needed. Economic development efforts include, but are not limited to:

- Existing topography with utility verification performed in 2018;
- Preliminary geotechnical explorations and report performed in 2018;
- Engineering feasibility concerning downtown circulation patterns performed in 2019;
- CDBG award for Mid-Town Mall forthcoming in 2019;
- Brownfields efforts at the mill yard area;
- Central Park Master Plan;
- Municipal outreach to locate renewed private investment interest;
- Programmed market analysis for business development by the City;
- Consideration of a DPW Sign Foreman to address the state of the City’s street signs;
- Traffic studies; and
- MaineDOT Safety Office coordination.

Task 4 - Assessment of Current Conditions

The consultant team will assess the current mobility and safety conditions within the study area building off information gathered in Tasks 2 and 3. As part of this effort, the assessment will include but not be limited to:

- Assessment of current traffic conditions, including traffic patterns, capacity, speeds, and crash experience; as part of this task, review traffic data collected and provided by Sanford and determine whether additional traffic data needs to be collected;
- Review of speed limits and actual speeds collected through enforcement mechanisms.
- Identification of road safety issues;
- Review lane layout at the following signalized intersections in conjunction with the upcoming MaineDOT BUILD Grant project [WIN 24301.00] (note: any short-term improvements should function with new signals):
 - Route 109 (Main Street) at Emery St.;
 - Route 109 (Main Street) at Washington St.;
 - Route 109 (Main Street) at Route 11 (Lebanon St.) and Route 4A (Winter Street);
- Review of road and sidewalk conditions and geometrics;
- Review of configuration and location of existing crosswalks;
- Assessment of access management;
- Review of bike and pedestrian accommodations and identification of bicycle and pedestrian deficiencies in the study area;

- On-street parking assessment; this may include:
 - Inventory of on-street parking (and loading) spaces by type and duration;
 - Occupancy survey of spaces by time of day to track the time of day when the most spaces are occupied and what the percentage occupancy is at that time;
 - Turnover survey to record the durations of occupancy by parked cars;
- Truck route assessment;
- Review of trail systems;
- Assessment of transit servicing the downtown;
- Review of utilities; and
- Identification and assessment of baseline environmental data, including registered historic properties, Public parks and recreation areas, wetlands, and endangered species such as bald eagle nests.

Task 5 – Assessment of Future Conditions

Based on the information gathered in Tasks 2-4, the consultant team will develop an assessment of future scenarios for mobility and safety. In order to achieve this, the consultant will:

- Develop a 2040 forecast of traffic volumes in the study area, based on historical traffic data and available MaineDOT traffic forecasts;
- Analysis of future traffic volume conditions of the study area. Analysis of alternatives under future existing conditions to prevent or minimize loss of service. The analysis will include predicted change in mobility and crash rates;
- Analysis of impacts to bicycle and pedestrian facilities;
- Analysis of impacts to transit service, including transit stop locations; and
- Review analyses with team members and discuss possible recommendations and additional alternatives to be considered.

Task 6- Develop Preliminary Recommendations

Based on the analysis of alternatives developed in Task 5, the consultant will develop conceptual designs/renderings that meet the City’s downtown revitalization goals and complement existing economic development initiatives.

The recommendations in the plans will be evaluated based on the ability to meet purpose and need, operational performance, relative level of effect to various resources, potential right-of-way acquisitions, total project cost, and other measures of effectiveness developed by the Study Team, typically in an evaluation matrix.

- The recommendations will include a discussion of the potential and degree of effort associated with environmental analysis, secondary, cumulative impacts, etc., including anticipated future costs of remaining planning, design, and construction phases.
- Develop cost estimates for recommendations (including construction and potential right-of-way costs).
- Develop a recommendation for phasing of implementation.

- Develop a draft report containing the analysis of existing and future conditions, alternatives analysis, and recommendations, including a matrix summarizing recommendations along with an appendix of traffic and crash data.
- Develop basic conceptual designs/renderings of recommended alternatives on aerial photography.

Task 7 - Stakeholder and Public Feedback

The consultant will organize 1-2 stakeholder meetings potentially consisting of elected officials, chamber representatives, local bike/ped representatives, etc. Stakeholder groups will be identified by the City of Sanford. Stakeholder meetings should be scheduled prior to or immediately after team meetings described in Task 1. In addition, the consultant team should expect to attend and present to the City of Sanford near the beginning of the study and attend and present draft recommendations at a Public meeting near the end of the study. The City of Sanford may lead an effort to enable online collection of feedback from the Public. The consultant would assist with question development and deliver the survey results. The City of Sanford may provide updates to these stakeholder groups throughout the duration of the study.

Task 8 – Final Report

The Tasks discussed above will be combined into a final narrative report documenting the project. At a minimum the report will include a narrative of the study process, a summary of the various economic development initiatives within the downtown area and adjacent communities, a description of the various alternatives considered, documentation of the evaluation criteria, and illustrations of conceptual designs and cross sections for the preferred alternative. The report should discuss how the preferred alternative meets economic and community development goals and complements existing initiatives. The final report will incorporate all applicable technical memorandums, including, but not limited to:

- Turning movements;
- Capacity analyses;
- Crash history;
- Safety analysis;
- Concept plans/Layouts;
- Trip assignments;
- Pedestrian improvement figures; and
- Transit route figures with stop locations.

APPENDIX B:

Standards to be used in Proposals for Alternatives for Sanford Area Transportation Study

Any Transportation improvements in Sanford would need to meet the following conditions:

- 1) All design features must reflect MaineDOT design guidance for Highway Corridor Priorities (HCPs).
- 2) All capacity, queuing, and level-of-service analyses will be done in accordance with the 2010 Highway Capacity Manual (HCM) methodologies. Signalized and stop sign controlled intersections will be modeled using the latest version of Synchro/SimTraffic. Computer modeling showing impacts of queuing and level of service will be provided to MaineDOT.
- 3) The design hour volumes will be based on estimated 30th highest hourly volumes for the design year.
- 4) Design year traffic estimates will be 2040.
- 5) Design speed – match existing posted speed.
- 6) Clear zone – per corridor priority 3 standards.
- 7) Side slopes 4:1 or flatter or as approved by MaineDOT.
- 8) Safety analysis of any proposed design will include an inventory of existing crashes, a prediction of crashes with the proposed design, and a comparative evaluation. Crash analysis will be based on the most recent five years of data available from MaineDOT. Safety analysis will generally follow Highway Safety Manual methodologies.
- 9) Drainage – needs to match into surrounding drainage structures.
- 10) Signing shall be in accordance with MUTCD (including potential changes to existing overhead signage in the area).
- 11) Any proposed lighting shall meet minimum AASHTO light levels.
- 12) The Design Vehicle for the major intersections shall be a WB-67, all other intersection shall be for a bus/fire truck.
- 13) Any new traffic signal recommendations must be accompanied by a warrant analysis justifying the recommendation.