Interstate 195 & Ocean Park Road Feasibility Study

Planning Partnership Initiative, WIN 26660.00

Old Orchard Beach & Saco, Maine

FINAL REPORT

November 27, 2024

GORRILL PALMER
An LJB Engineering Company

NORTHSTAR PLANNING

LANDSCAPE ARCHITECTURE + URBAN DESIGN

CITY OF Saco

Old Orchard Beach MAINE

MaineDOT

Table of Contents

Executive Summary 2-3

Introduction 4-5

Study Area 6

Public Process 7-8

Existing Conditions 9-12

Environmental Review 13

Traffic & Capacity Analysis 14-19

Summary of Options 20-27

Conceptual Plans 28

Construction & Project Costs 29

Property Impacts 30

Recommendations 31-35

Appendix A ..... Concept Plans

Appendix B ..... Cost Estimates

Appendix C ..... Traffic Analysis

Appendix D ..... Crash Data

Appendix E ..... Evaluation Matrix

Appendix F ..... Renderings

Appendix G ..... Public Outreach

Executive Summary

This study focuses on transportation improvements along the Ocean Park Road corridor in Old Orchard Beach and Saco. The purpose of this study is to evaluate potential strategies to improve safety, mobility and traffic calming along the I-195 and Ocean Park Road corridor. This study will consider improving safety within the corridor and along Main Street in Saco, reducing speeds of approaching traffic, improving geometry that may be confusing, providing better access to adjacent properties and side streets, and providing for new and improved bicycle and pedestrian infrastructure, all while maintaining reasonable levels of mobility.

This study considered intersection & safety improvements to high crash locations at the Main Street and Interstate 195 eastbound offramps as well as intersection improvements to three key intersections along the Ocean Park Road corridor in Old Orchard Beach. Roundabout, signalized and unsignalized options were considered for the Ocean Park Road corridor, as well as access management, and corridor improvements for all transportation modes. All options assume a four-lane section for Ocean Park Road including two eastbound travel lanes, one westbound travel lane, and one turn lane.

There have been prior studies completed for this area focusing on intersection improvements to the Halfway intersection as well as recent efforts to provide pedestrian safety improvements at the Smithwheel Road intersection. Many of the Halfway intersection recommendations from the recent PPI study will be carried forward as recommendations in this study.

Ocean Park Road is generally a four-lane roadway section, is classified as a major collector and corridor priority 2 with a posted speed limit of 30 MPH and a factored AADT of approximately 19,300 vehicles. Traffic is free flowing in the existing condition on Ocean Park Road. As a result, the side streets, especially Smithwheel Road suffer from operational challenges during the summer months including heavy traffic queuing and low levels of service on the side roads. There are three intersections classified as High Crash Locations within the study areas and a fourth intersection that has been a high crash location in years past. The corridor has poor access management, speed control issues and poor pedestrian and bicycle accommodations. In addition to alternative treatments for the intersections, pedestrian, access management and accessibility improvements to the existing roadway network of Ocean Park Road, I-195, Smithwheel Road, Saco Ave, Temple Ave and Old Orchard Road are being proposed.

Traffic analysis and computer simulation modeling have been completed for each of the options for the year 2023 and a future year of 2045. The same analysis has been completed for a No-Build condition, which assumes no improvements to the corridor. All options analyzed have acceptable levels of service for traffic operations (defined as a Level of Service of D or better), and all are equal or better than the No-Build condition. It is noted all three intersections on the Ocean Park Road corridor will meet the warrants for traffic signals.

Concept plans and cost estimates for each option have been generated. Options have been evaluated on how well each meet the purpose and need statement of this study. That evaluation has considered factors such as improvements to safety, accessibility for side streets, is bicycle and pedestrian accommodations provided, and is traffic calming provided, etc.

After comparing the options to the study purpose and need, the study team has determined that the roundabout option best meets the goals and objectives of this study. The study team recommends implementation of the roundabout option so that accessibility,

safety, and mobility benefits can be realized as soon as funding is identified and secured. The roundabout option includes a multi-lane roundabout at the end of the I-195 spur, a signalized intersection with Smithwheel Road and a signalized intersection at the Halfway intersection.

In terms of gateway treatments into Old Orchard Beach, the roundabout option provides the best opportunity for placemaking and gateway treatments. There is ample space for creation of green spaces, landscaping, and welcome signage.

The study team has developed opinion of probable construction costs for each of the options analyzed as part of the Study. Construction costs are the costs needed to build the project. Using the conceptual layouts developed for each of the options, preliminary quantities have been calculated, and construction costs have been estimated using Maine DOT average unit pricing and pay items. Work assumes full-depth construction of the necessary roadway widening as well as the proposed intersection improvements. A 25% contingency has been added to each of the construction cost estimates. The construction costs are presented in 2024 dollars and no escalation to future years has been included. The conceptual construction cost estimate for the recommended option (roundabout) is $12,270,000.

Total project cost is a Maine DOT term that includes not only the construction costs, but also the engineering costs, inspection costs and right of way costs associated with a project. The study team has included engineering costs at 10% of construction costs for each option. Inspection costs have been estimated at 10% of the construction cost. Right of way costs are based on anticipated property impacts and the potential acquisition of land that may be needed for the project. The conceptual total project cost for the recommended option (roundabout) is $15,930,000.

Introduction

The Town of Old Orchard Beach & City of Saco in collaboration with the Maine Department of Transportation (Maine DOT) pursuant to a Planning Partnership Initiative (PPI) agreement has contracted with Gorrill Palmer and its subconsultant team to perform a transportation feasibility study for the Interstate 195 & Ocean Park Road corridor. This study will complement the previous planning study initiatives that were completed for the Halfway Intersection (Saco Ave, Ocean Park Road, Old Orchard Road, Temple Ave), in Old Orchard Beach and will evaluate potential strategies to improve safety, mobility and traffic calming along the I-195 and Ocean Park Road corridor. This study will consider improving safety within the corridor and along Main Street in Saco, reducing speeds of approaching traffic, improving geometry that may be confusing, providing better access to adjacent properties and side streets, and providing for new and improved bicycle and pedestrian infrastructure, all while maintaining reasonable levels of mobility.

Purpose & need

This study has two focus areas; Ocean Park Road from I-195 to the Halfway Intersection and I-195 eastbound offramps onto Main Street in Saco. As a result, two purpose & need statements were developed:

Ocean Park Road

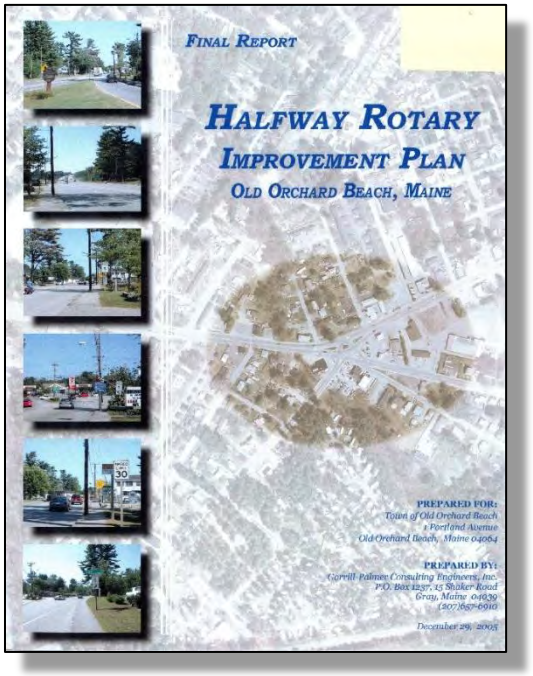
The purpose along the Ocean Park Road corridor from where it transitions from a controlled access to an uncontrolled access highway to the Halfway Intersection in Old Orchard Beach is to recommend implementable alternatives to improve safety while maintaining reasonable mobility and accessibility for all modes of transportation both now and into the future.

The needs include improving safety at high crash locations, speed level compliance, maintaining acceptable levels of service entering the Ocean Park Road corridor from I-195, improving the geometry and weaving actions and providing for improved access management within the corridor while improving accessibility for all transportation modes including bicycles, pedestrians, and transit.

Main Street (Saco)

The purpose at the Main Street/Interstate 195 interchange in Saco is to recommend implementable alternatives to improve safety and operations while maintaining reasonable mobility and accessibility for all modes of transportation both now and into the future.

The needs include improving safety at two high crash locations at the I-195 interchange with Main Street while maintaining acceptable levels of service and improving accessibility for all transportation modes.

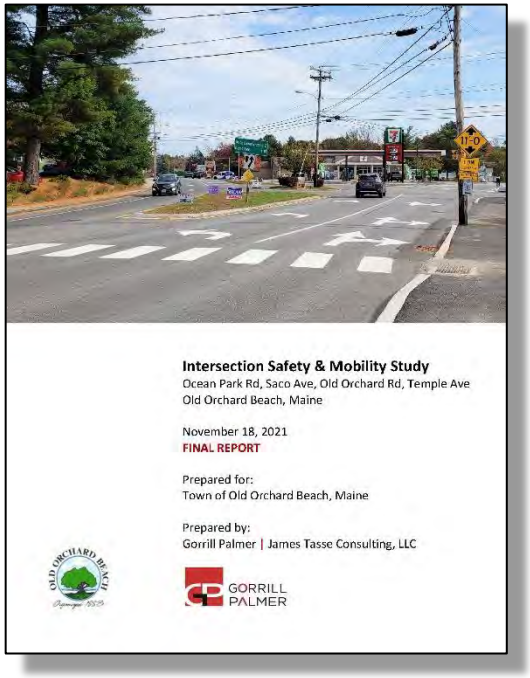


Prior planning work

The Ocean Park Road corridor has been a focus for the Town of Old Orchard Beach and City of Saco from a transportation safety and mobility perspective for almost 20 years.

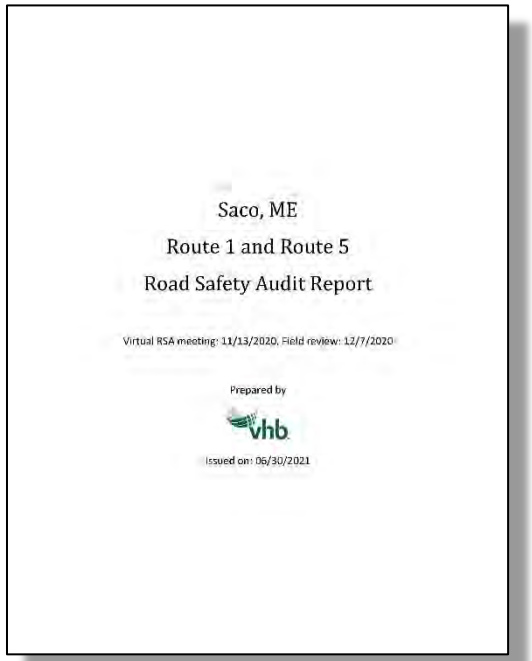
The following is a summary of prior planning work in the corridor:

Halfway Rotary Improvement Plan – This 2005 study documented the existing conditions including signage, traffic data, and collision history for the Town of Old Orchard Beach. Work within this study included development of five alternatives including several signalized intersection alternatives, a roundabout alternative, and unsignalized alternatives that considered roadway closures. Operational evaluation including traffic analysis and modeling was completed for each of the alternatives. Concept plans and construction costs were developed.



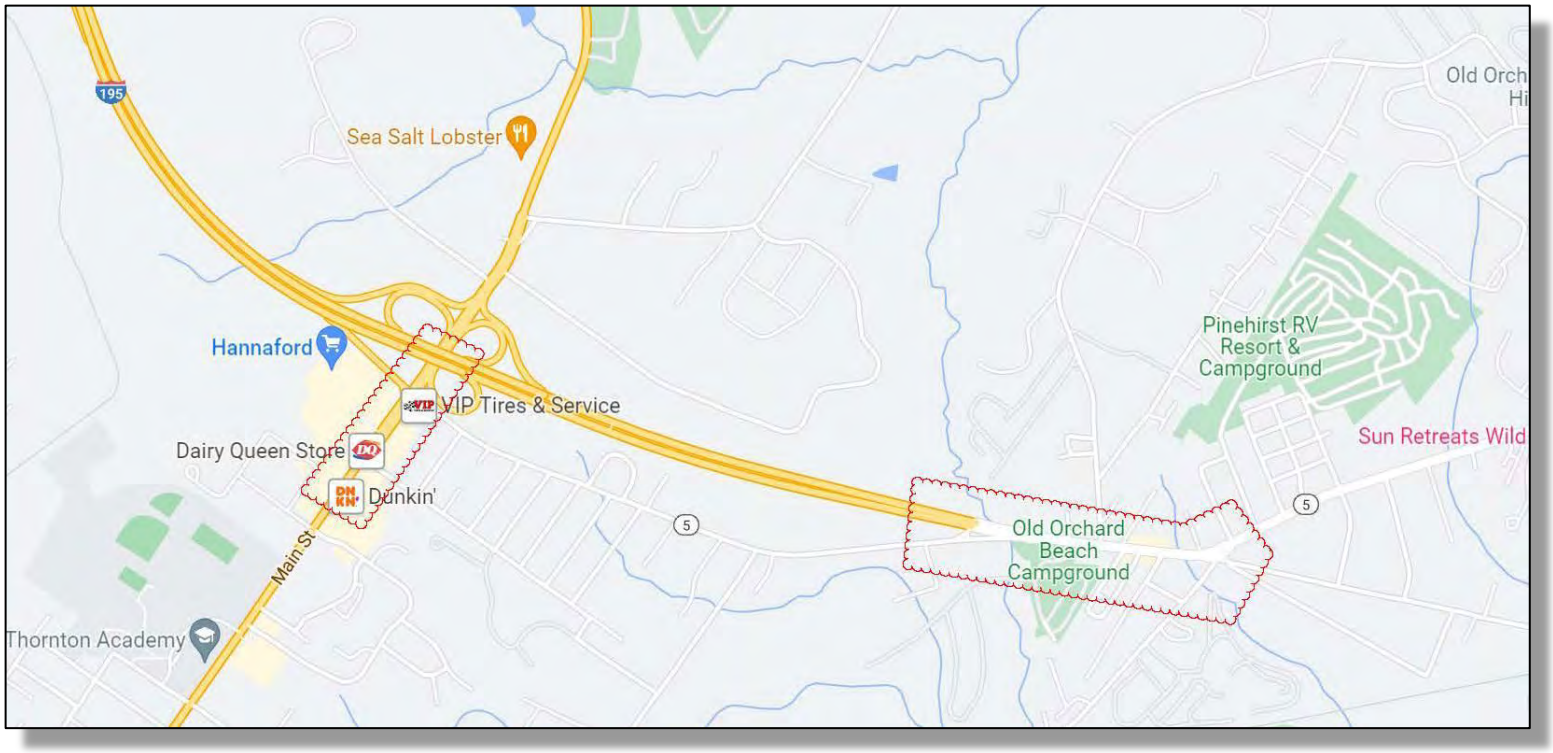
Intersection Safety & Mobility Study – This 2021 planning partnership initiative study of the Halfway Intersection with the Town of Old Orchard Beach documented the existing conditions, completed a safety assessment, reviewed the area for deficiencies in pedestrian and bicycle accommodations and reviewed access management. Traffic analysis was completed and four intersection alternatives were developed including three signalized intersections and a roundabout. The study identified two alternatives that met the purpose and need (4-way signal and roundabout). The study also recommended that an additional study be completed for the section of roadway from I-195 to this Halfway Intersection.

Route 1 & Route 5 Safety Audit – This 2021 safety audit and report of two high crash locations in the City of Saco was completed for PACTS. The two high crash locations are the Route 1 (Main Street) with the I-195 eastbound offramps (Exit 2A and Exit 2B). The recommendations to mitigate those high crash locations included rerouting eastbound traffic on Exit 2A down I-195 to Ocean Park Road and providing for geometric improvements to the Exit 2B connection to Main Street.



These prior studies and reports assisted in guiding us through this current study and many of the recommendations from those prior studies and reports have been implemented in this study. In fact, the improvements proposed at Halfway Intersection in Old Orchard Beach are based primarily on the 2021 PPI study recommendations with updates to traffic analysis and modeling. The improvements to the high crash locations in Saco at the Main Street & I-195 eastbound offramps are based on the above noted report.

Study Area



The overall study area for this project is comprised of two locations.

The first location begins at the end of the Interstate 195 spur in Saco and extends along Ocean Park Road in Old Orchard Beach to and including the Ocean Park Road intersection with Saco Ave, Old Orchard Road, and Temple Ave, also known as the Halfway Intersection. Most of this study area is in Old Orchard Beach. The length of this study area along Ocean Park Road is 0.40 miles.

The study area includes the intersections with Reserve Ave, Smithwheel Road, Jeanette Ave, Melvin Ave, Dewey Ave, Olympia Ave, Old Orchard Road, Old Salt Road, Temple Ave, and Saco Ave. The area is considered a high-speed to low-speed transition zone with traffic exiting the I-195 spur and there are three large volume intersections including Ocean Park Road (at the end of the I-195 spur), Smithwheel Road, and the Halfway Intersection. There are existing pedestrian sidewalks on Ocean Park Road, Smithwheel Road, Old Orchard Road, Temple Ave, and Saco Ave. There is a large campground (Old Orchard Beach Campground) located on Ocean Park Road.

The second study area is in Saco along Main Street (Route 1) at the intersections with the I-195 eastbound offramps, exit 2A and exit 2B.

Public Process

Public outreach is a key component to this project. In addition, coordination with town officials and town council members on the progress and outcomes of the study are equally important. Below is a summary of meetings that have occurred for this project, before and during this study:

Early Public Process

In 2021, Gorrill Palmer completed a PPI Study for the Town of Old Orchard Bach for the Halfway Intersection (Ocean Park Road, Saco Ave, Old Orchard Road, and Temple Ave). That project included the following public outreach:

- Public meetings on December 9, 2020, and June 17, 2021.
- Town council meetings on June 1, 2021, and July 14, 2021.

All meetings occurred at the Old Orchard Beach Town Hall. Public meetings were video recorded and were posted on the town's website for viewing. It was through this public coordination that the town council recommended another study that would focus on safety and mobility improvements along Ocean Park Road from the end of the I-195 spur to the Halfway Intersection.

Ocean Park Road Study

The public process for this planning study has included the following two public meetings:

Public Informational Meeting – This meeting was held on August 17, 2022 at the Town Hall in Old Orchard Beach and was well attended by residents, town officials, council members, business owners and abutters. The presentation included introducing the study team, reviewing the study limits, discussing the project background and history, and reviewing areas of study focus. The following comments were received during this meeting:

- Speeds through the corridor are a concern.
- Access to and from Smithwheel Road is challenging.
- Short-term improvements to the corridor should be investigated including better signing at Smithwheel Road.
- Crash data on roundabouts were requested.

Public/Council Meeting - A second public meeting was held on June 17, 2024 in conjunction with a town council meeting at the Town Hall of Old Orchard Beach. It was also well attended by town officials, residents, and abutters. The presentation included discussing the purpose & need statements, reviewing the study scope, presenting crash data & identifying high crash locations, presenting concept plans, and initial findings on the options being considered. The following comments were received during this meeting:

- The Old Salt Road intersection is difficult to navigate with delivery trucks and should be widened as part of this project.

- The need for a right turn lane into the campground at the Smithwheel Road intersection should be revisited.
- Short-term safety improvements to the corridor and the Halfway Intersection should be investigated now.

- The roundabout and signalized options for the I-195 spur intersection with Ocean Park Road appeared to be equally supported by the audience. The roundabout option was viewed as providing better traffic calming and better safety while the signalized option was viewed as more conventional and less confusing than a two-lane roundabout.

Gorrill Palmer also met separately with town officials, MaineDOT, and two council members to present the final concepts and all seemed supportive on the corridor recommendations with either a roundabout or signal option at the end of the I-195 spur. The proposed signal options for the Smithwheel Road and Halfway intersections were well received.

In addition to those meetings, there was a total of 18 coordination meetings with town staff and Maine DOT to discuss this progress of this study from September 27, 2022 to December 15, 2023.

Public meetings were video recorded and were posted on the town's website for viewing. Presentation materials from the public outreach process can be found in Appendix G.

Existing Conditions

Transportation System

The Ocean Park Road corridor is the major entry point into the Town of Old Orchard Beach for its residents, tourists, and visitors. Ocean Park Road on the western terminal of this study area connects to the Interstate 195 spur which is a limited access divided highway that provides connections to Route 1 in Saco and the Maine Turnpike. Ocean Park Road on the eastern terminal of this study area connects to Saco Ave, Old Orchard Road, and Temple Ave with an unsignalized intersection, also known as the Halfway Intersection. In the middle of the corridor is an unsignalized three-way intersection with Smithwheel Road. Ocean Park Road has the free flow movement at the Smithwheel Road intersection and the Halfway Intersection and the minor roads of Smithwheel Road, Temple Ave and Old Orchard Road having stop conditions.

Ocean Park Road within the study area is a major collector, corridor priority 2 roadway with 19,300 vehicles a day nearest the I-195 spur and 16,000 vehicles a day nearest the Halfway Intersection. The speed limit on Ocean Park Road is 30 mph, although traffic travels much faster exiting the I-195 spur in the eastbound direction.

Smithwheel Road is a local street, corridor priority 5 roadway with 4,700 vehicles a day. The speed limit on Smithwheel Road is 25 mph.

Temple Ave is a major collector, corridor priority 3 roadway with 4,800 vehicles a day. The speed limit on Temple Ave is 30 mph.

Old Orchard Road is a major collector, corridor priority 4 roadway with 4,900 vehicles a day. The speed limit on Old Orchard Road is 25 mph.

The characteristics of **Ocean Park Road** from the I-195 spur to the Smithwheel Road intersection generally include two travel lanes in the eastbound direction, one travel lane in the westbound direction and a center turn lane for accessing side streets and driveways. Ocean Park Road from the Smithwheel Road intersection to the Halfway intersection is generally three travel

lanes in width (two lanes eastbound and one lane westbound). The shoulders are paved and very narrow in width or non-existent. Paved sidewalks are present on both sides of Ocean Park Road from the Halfway Intersection to the west side of the Smithwheel Road intersection, but the sidewalks do not extend to the I-195 spur intersection with Ocean Park Road. There are no existing facilities for bicycles.

There are two bus transit stops on Ocean Park Road, one in each direction between the Smithwheel Road intersection and Melvin Ave intersection.

The roadway is curbed with closed drainage throughout the study area. There is existing bituminous curbing in the shoulder areas and sloped granite curbing in existing center median areas. There are overhead utilities and utility poles on the south side of the corridor and underground public water and sewer systems. Existing lighting consists of cobra style lights on utility poles. The roadway has a relatively flat profile and a straight horizontal alignment within the study limits however there is a downhill grade from the I-195 spur entering the study area, which does not help with speed control.

There are mostly commercial properties along the Ocean Park Road corridor with a few residential properties near Reserve Ave

and Dewey Ave. Access management is poor in just a few spot locations along the corridor, mostly near the Halfway Intersection.

There are numerous intersections along Ocean Park Road including I-195, Reserve Ave, Smithwheel Road, Jeanette Ave, Melvin Ave, Dewey Ave, Olympia Ave, Saco Ave, Temple Ave, and Old Orchard Road. All are unsignalized intersections with stop conditions for the minor street.

The Halfway Intersection has existing raised medians and channelization islands and is very confusing to navigate for both residents and tourists. It is considered a high crash location.

The Smithwheel Road intersection is unsignalized with Smithwheel Road being a stop condition. Smithwheel Road during the summer months experiences heavy traffic backups and delays.

The I-195 intersection (end of spur) with Ocean Park Road uses a series of channelization islands and center medians to merge the traffic in the eastbound direction. There is an unsignalized left turn movement for Ocean Park Road in the westbound direction prior to reaching the I-195 spur but there is no right turn movement allowed from the I-195 spur onto is Ocean Park Road and no left turn movement allowed from Ocean Park Road onto the I-195 spur.

There is also one major driveway entrance in the study area for the Old Orchard Beach Campground. This entrance is located between Reserve Ave and Smithwheel Road and generates a significant amount of camper traffic.

The characteristics of **Main Street in Saco** where I-195 eastbound offramps (exit 2A and 2B) connect is a multi-lane facility with two travel lanes in each direction plus turning lanes. There is a signalized intersection connecting Exit 2A to Main Street and a yield condition for the Exit 2B connection to Main Street.

Main Street is a minor arterial, corridor priority 2 roadway with 19,900 vehicles a day. The speed limit on Main Street is 35 mph.

I-195 Eastbound Offramps, exit 2A and exit 2B are an interstate system, corridor priority 1 roadways with 3,900 vehicles a day and 2,400 vehicles a day respectively. The posted speed for Exit 2A is 35 mph and it is 25 mph for Exit 2B.

Safety Review

A safety audit and site visit of the corridor was completed by the study team on October 12, 2022. The following items were identified from this safety review for the Ocean Park Road corridor:

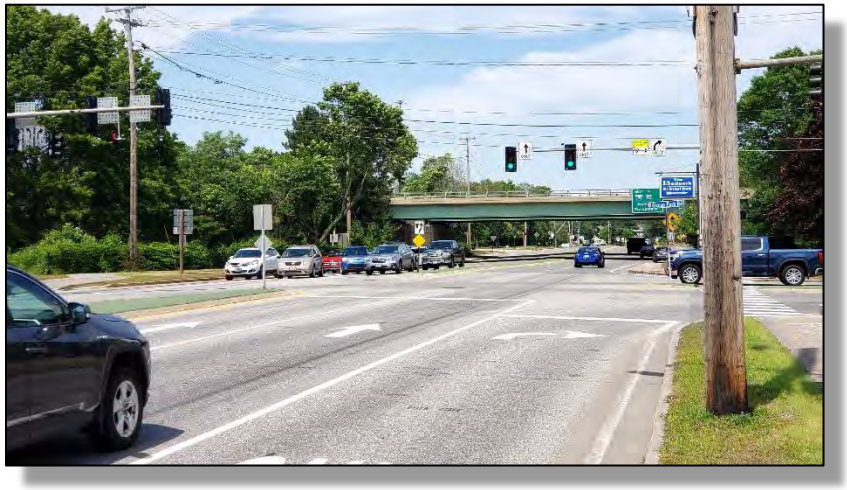
- Bicycle accommodations were lacking in the corridor.
- The shoulder striping for bicycles traveling from Ocean Park Road in Saco to Ocean Park Road in Old Orchard Beach is confusing and does not provide for a safe refuge in Old Orchard Beach.

- There are no pedestrian sidewalks between Ocean Park Road in Saco and Ocean Park Road in Old Orchard Beach, however there is strong evidence of pedestrian traffic in this area. There is a walking path worn into the existing grass adjacent to the road.
- Speed compliance issues were noted for traffic exiting I-195 onto Ocean Park Road in the eastbound direction.
- There is a significant traffic weave happening between the end of the I-195 spur and the campground and the Smithwheel Road intersection.
- ADA compliance of pedestrian facilities is lacking in the corridor.
- Access management is poor in some areas of the corridor.
- The Halfway intersection is confusing to navigate for traffic because its geometry is so unique.

- Traffic was observed queuing within the Halfway Intersection at the raised island and blocking free flowing traffic entering the intersection.

The following items were identified from this safety review for the Saco, Main Street corridor:

- Traffic on Route 5 (Ocean Park Road) turning left on Main Street is a concurrent but conflicting movement with through traffic exiting the I-195 eastbound offramp, exit 2A. This is a dangerous situation and near crashes were observed during the site visit.
- Speed compliance for through traffic exiting the I-195 eastbound offramp, exit 2A is a concern.



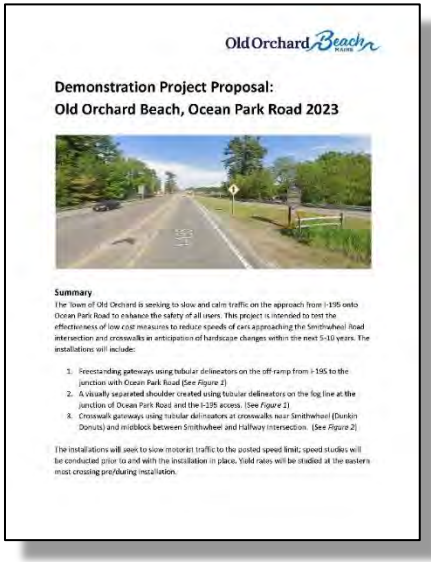
- The cycle time for the traffic signal at the Route 5 (Ocean Park Road) intersection with Main Street is very long.

For the Ocean Park Road study area, the proposed design should include traffic calming measures to better control vehicle speeds entering the corridor. Bicycle accommodations are needed for the full study limits and improvements to pedestrian accommodations are also needed. The traffic weave between the I-195 spur and the campground and the confusing geometry at the Halfway intersection need to be addressed. Improved access management is needed in select areas.

For the Saco, Main Street study area, the concurrent but conflicting traffic movement between the I-195 eastbound offramp exit 2A and the Route 5 (Ocean Park Road) traffic needs to be addressed. The high speed of the offramp through traffic also needs to be addressed.

Short-Term Safety Improvements

The study team developed and prepared short-term safety improvement plans for both study areas in April 2023. The demonstration projects focused on traffic calming and pedestrian safety improvements using low-cost equipment such as pavement markings, signing, and vertical delineators. Implementation of those short-term improvements have not occurred.


Old Orchard Beach

Demonstration Project Proposal:
Old Orchard Beach, Ocean Park Road 2023

Summary

Saco

Demonstration Project Proposal:
Saco, I-195/Route 1 Intersection 2023

Summary

Environmental Review

The study team has reviewed data available from the town and from the state regarding existing environmental resources. This data included a range of environmental features, such as wetlands, vernal pools, water bodies, deer wintering areas, historic properties, and archaeological sites. These features were inventoried and mapped in GIS. More detailed field verification of existing environmental, cultural, and historic assets will be required in the design phase. This higher-level desktop review of existing features is useful for understanding the types and extents of environmental resources in the study areas.

Based on a desktop review of the study limits, there are no aquifers, deer wintering areas, endangered / threatened / special concern species habitat, conservation areas, or other habitat within the study areas.

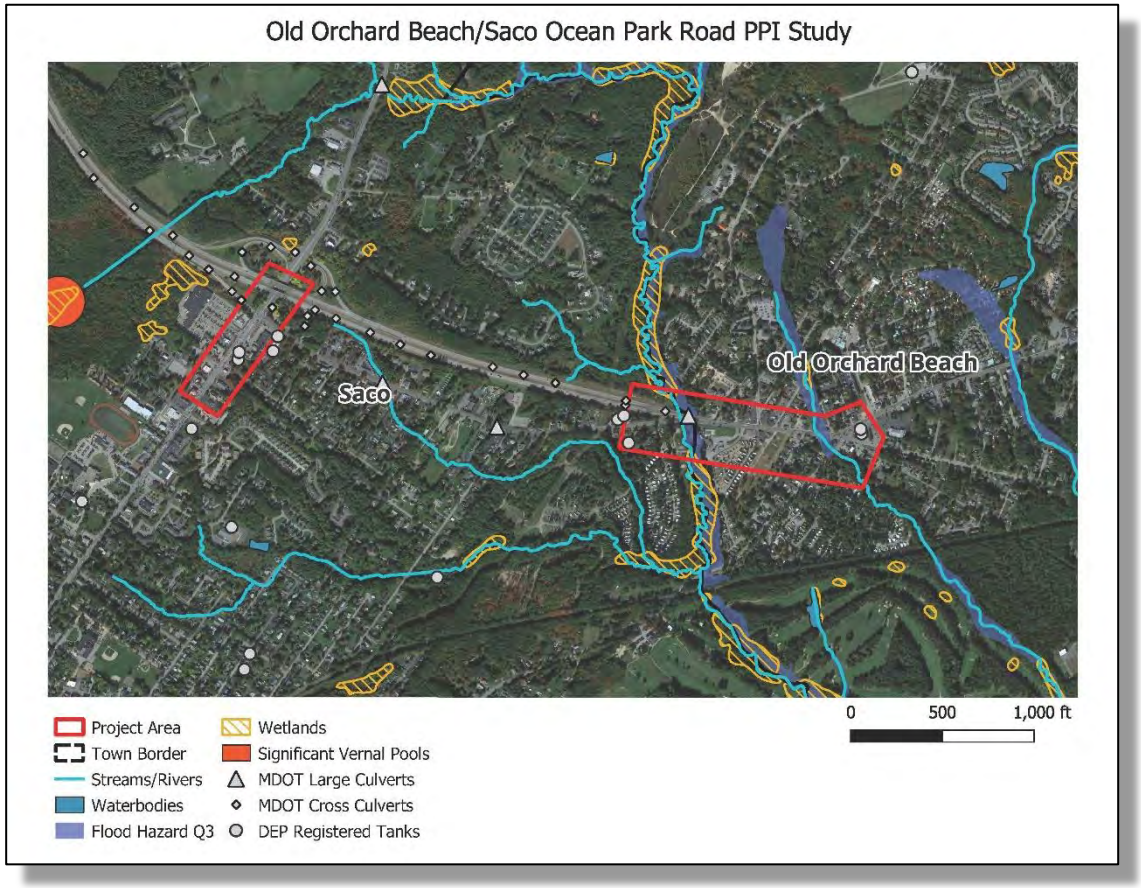
In the Saco, Main Street study area, there are no wetlands, vernal pools, rivers, or streams within that construction footprint.

In the Old Orchard Beach, Ocean Park Road study area, there are no vernal pools in that construction footprint. There are however two stream crossings.

The first crossing is Goosefare Brook, which is considered an urban impaired stream and is located at the town line between Old Orchard Beach and Saco. The stream travels under Ocean Park Road in a large culvert. In reviewing the concept designs, none of the construction footprints appear to impact the culvert ends and all work is contained over the large culvert.

The second smaller stream crossing is located just west of the Halfway intersection. This stream connects to the Goosefare Brook downstream. Similarly, all work at this stream crossing should be contained over the existing culvert of this stream.

No impacts to the streams are anticipated. Further review of environmental impacts is recommended during the design phase.



Traffic & Capacity Analysis

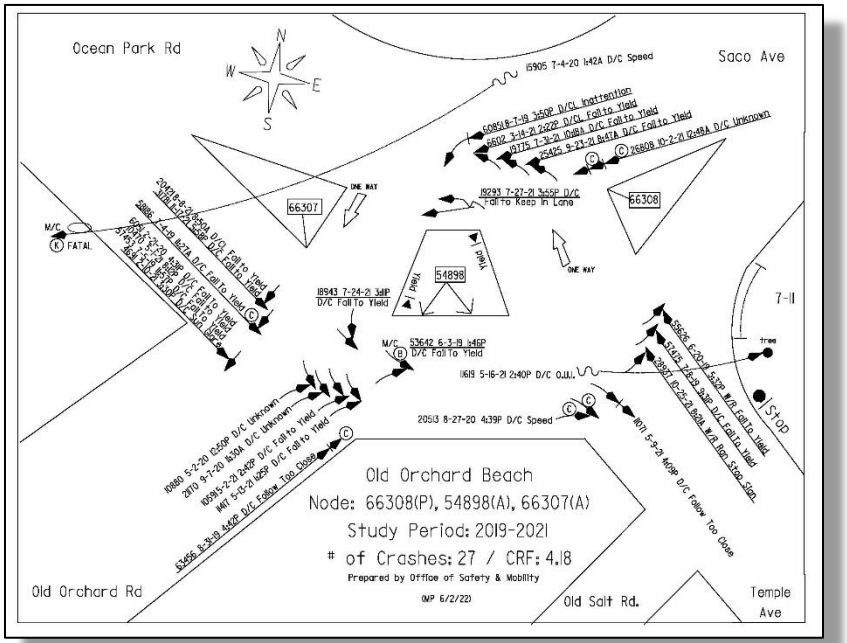
Traffic volumes are a major factor in evaluating safety and vehicle mobility within these study areas. Assessment of traffic capacity and vehicle mobility is included in the scope of this study. The average annual daily traffic (AADT) for Ocean Park Road within our study limits is 19,300 AADT and the traffic on the side roads of Smithwheel Road, Temple Ave, Old Orchard Road are all approaching 5,000 AADT. The Ocean Park Road corridor from the Interstate 195 spur is the major entry point into the Town of Old Orchard Beach for its residents, tourists, and visitors. This area experiences heavy seasonal tourist traffic.

The intersections of Smithwheel Road and the Halfway Intersection are free flowing for Ocean Park Road and stop conditions for the side roads. Heavy vehicle queuing and stacking on the side roads is not uncommon during the summer months. One of the goals of this study is to improve access and vehicle mobility for all approaches to these intersections. This study will also look to address safety and operational challenges that exist within the corridor including improving the confusing geometry of the Halfway Intersection and improving the weave that exists on the western end of the study area.

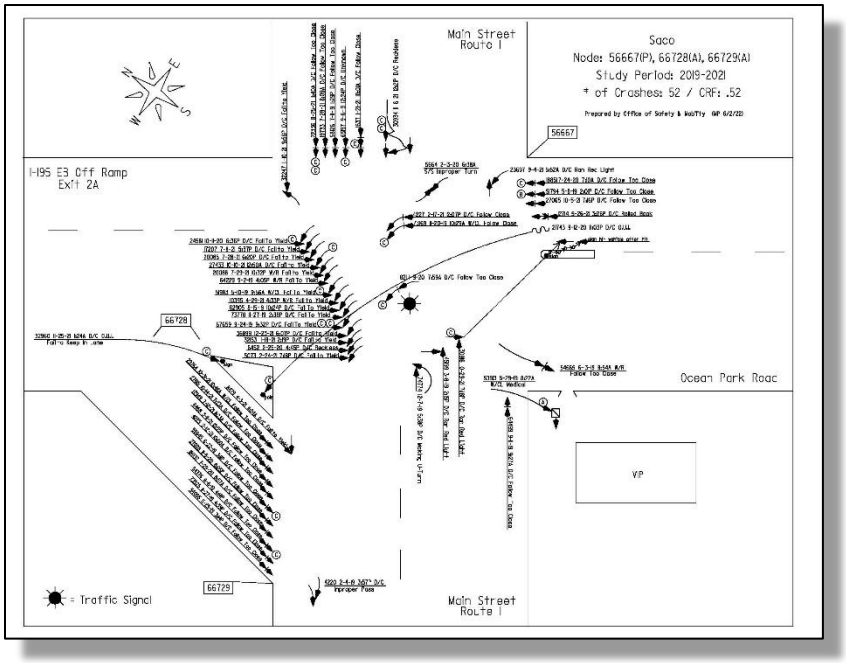
Crash Data

To better understand the crash patterns in the study areas, the study team obtained 2019-2021 crash data from Maine DOT (latest available data at the beginning of this study). To qualify as a high crash location, there needs to be eight or more crashes in a three-year period and a critical rate factor of 1.0 or greater. Based on the information provided, there are three High Crash Locations (HCL) within the study areas.

The Halfway Intersection had 27 crashes and has a critical rate factor of 4.18 during the above noted three-year period.



The I-195 Eastbound Offramp (Exit 2A) Intersection with Main Street southbound in Saco had 52 crashes and has a critical rate factor of 1.52 during the same three-year period (see below).

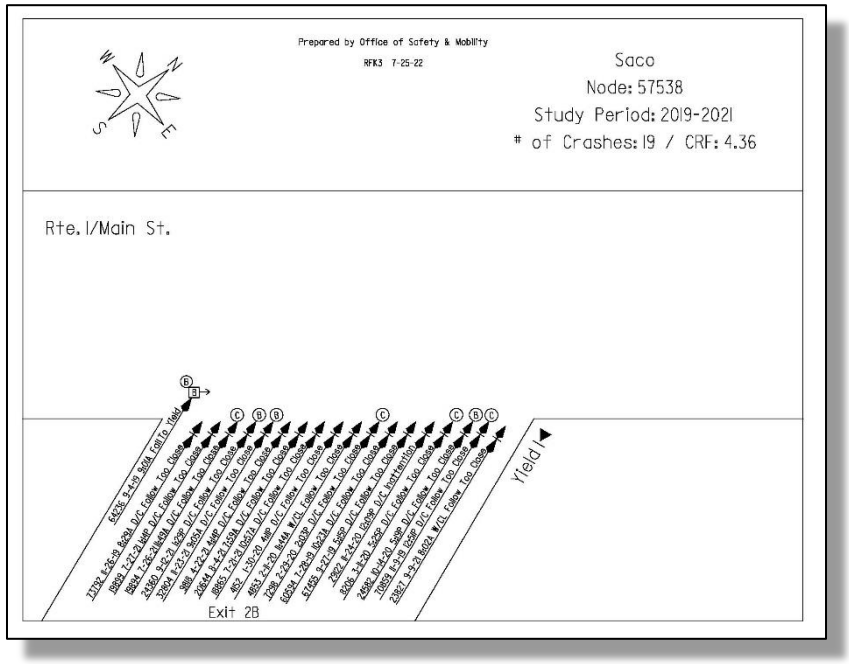


The I-195 Eastbound Offramp (Exit 2B) Intersection with Main Street northbound in Saco had 19 crashes and has a critical rate factor of 4.36 during the same three-year period (see right).

While the Smithwheel Road intersection with Ocean Park Road currently does not meet the criteria for a high crash location, it has been considered a high crash location in prior years and should be reviewed for safety and mobility improvements. Below is a summary of the available crash history (HCL) for the Smithwheel Road intersection with Ocean Park Road:

- 2018-2020: 10 crashes and CRF 1.57
- 2017-2019: 13 crashes and CRF 1.80
- 2016-2018: 13 crashes and CRF 1.88
- 2015-2017: 10 crashes and CRF 1.46

Each of the above periods is considered a high crash location.

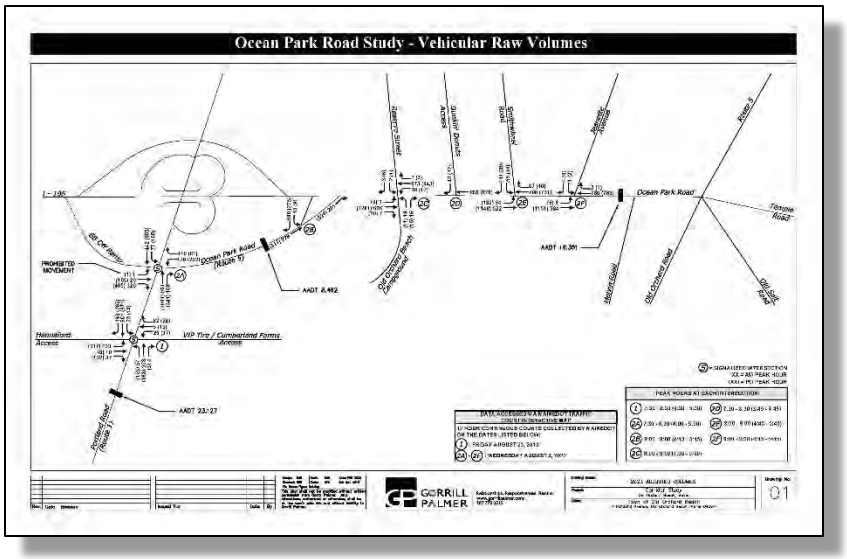


This information confirms the feedback received from the public and the observations made during site visits. Long term safety and operational improvements are needed for these study areas.

See Appendix D for supporting documentation on the 2019-2021 crash data.

Traffic Volumes

Turning movement counts were collected for all intersections by Maine DOT on August 3, 2022 with the exception on one intersection. Turning movement counts for the Main Street intersection with the Hannaford & VIP entrance in Saco was collected August 23, 2013. Both morning and evening peak hour counts were collected.

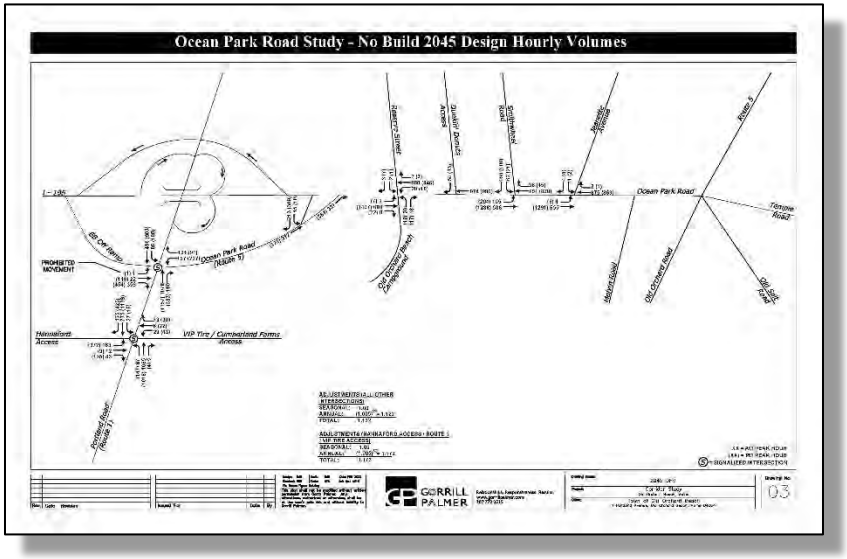


The traffic data has been compiled in its raw format, then volumes have been balanced, seasonally adjusted to represent the peak summer months (as necessary), and finally 2023 design hour volumes have been determined.

Traffic Analysis

With the above traffic data and design hour volumes, the study team has performed capacity analysis and computer modeling using Synchro & SimTraffic software for the existing condition. The results of the existing condition modeling have been reviewed by Maine DOT & the municipalities and then calibrated to provide a reasonable representation of the existing conditions.

Next, the study team developed a future No Build traffic model based on a 22-year projection (year 2045). To determine a reasonable growth rate factor, an assessment of planned development was completed including projects approved but not yet built, projects in the approval pipeline, projects that have obtained a Maine DOT traffic movement permit and projects that in the town's judgement should be considered in the 22-year planning horizon. Finally, historic traffic growth was reviewed and considered in the assessment. After considering the above factors, the study team selected an annual growth factor of 0.5% per year for 22 years. The resulting 2045 traffic design hour volumes are summarized in the graphic below.



Next, traffic analysis and modeling of the future 2045 No Build condition was completed and thereafter traffic analysis and modeling was completed for the proposed options.

Traffic Modeling Results

After the 2045 No Build condition was modeled and analyzed, the study modeled the following two initial options:

Roundabout Option - this option includes roundabouts at the end of the I-195 spur and the Halfway Intersection with the Smithwheel Road Intersection remaining unsignalized.

Signal Option - this option includes traffic signals at the end of the I-195 spur, Smithwheel Road Intersection, and the Halfway Intersection.

Both options assume the Old Orchard Beach Campground entrance is relocated to the Smithwheel Road intersection, creating a 4-way intersection. The signal option assumes signal interconnection and coordination which would allow for platooning of through traffic on Ocean Park Road.

A signal warrant analysis was completed for the intersection of Smithwheel Road. Initial findings suggested that the intersection warrants a signal only when part of a coordinated signal system, therefore the roundabout option does not propose a signal at the Smithwheel Road intersection.

One of the town's goals for the Ocean Park Road corridor is to keep the intersections and corridor as "small" as possible. This not only presents more of a village atmosphere and gateway to the downtown but could also result in more real estate to use for pedestrians, bicyclists, and other non-vehicular uses. As a result, the study team also modeled smaller footprints for the two options above, considering different variables for peak hour factor and time of year traffic analysis. Typically, Maine DOT requires analysis using a 0.92 peak hour factor and traffic analysis using the 6th highest week of the year. The reduced footprints used a 1.00 peak hour factor and traffic analysis for the 8th peak month of the year, excluding traffic volumes during the summer months. The results of this information are presented in the traffic evaluation memo dated June 25, 2023 can be found in Appendix C of this report.

Client Meeting

After lengthy discussions, the study team met with Maine DOT and the municipalities on November 13, 2023 to discuss the options being considered, including traffic analysis associated with the smaller footprints and the signalization of the Smithwheel Road intersection.

Regarding the Halfway Intersection, the study team decided that signalization of this intersection instead of a roundabout was the preferred option for the following reasons: public input, abutter impacts, costs, and simplification of the intersection. It was discussed that the size of the intersection will be reduced from that originally evaluated and shown in the 2021 Halfway Intersection PPI Study. The reason for this reduction was that the newer traffic

volumes were less than the traffic volumes used in the prior study. It is worth noting that there is a preference to make the major

movements of Ocean Park Road and Saco Ave the straight movements through the intersection, if possible.

Regarding the Smithwheel Road intersection, Maine DOT reviewed the signal warrant analysis and decided that this intersection can be signalized in isolation without being part of a coordinated signal system. This decision allows Smithwheel Road to be signalized without requiring the other intersections to be signalized as well. The study team agreed that signalization (whether isolated or coordinated) is preferred for this intersection. In signalizing the intersection, the campground entrance will be relocated to align with this intersection and mid-block pedestrian crosswalks will be relocated and included in the signalized intersection, which will

improve pedestrian safety. Maine DOT supported a separate right turn lane into the campground to remove larger vehicles from the through traffic stream, particularly if a single through lane (smaller footprint) is proposed.

Regarding the End of the I-195 Spur intersection, the study team agreed that primary concerns here are the speed of vehicles entering the Ocean Park Road corridor from the spur and the weaving of traffic between I-195 eastbound and Ocean Park Road

eastbound. Unsignalized, signalized, and roundabout options should be considered at this location. With all options, the existing Ocean Park Road slip ramp will be shifted into the intersection, to reduce vehicle speeds and to allow for more weave length. All options will also provide a right turn lane from I-195 eastbound onto Ocean Park Road. This would allow for the elimination of the through movement of the I-195 eastbound offramp, exit 2A intersection with Main Street in Saco, which will improve the safety of that high crash location.

Councilor Meeting

Based on direction from the November 13, 2023 client meeting, traffic analysis, modeling, and development of concept plans were prepared for the following options:

- Roundabout at End of I-195 Spur (option 1)
- Signalized intersection at End of I-195 Spur (option 2)

- Unsignalized intersection at end of I-195 Spur (option 3)
- Signalized intersection at End of I-195 Spur with smaller footprint (option 4)
- Unsignalized intersection at end of I-195 Spur with smaller footprint (option 5)

All above options include signalization of the Smithwheel Road and Halfway Intersections and relocation of the campground entrance to the Smithwheel Road intersection. All options also include traffic calming on I-195, specifically provisions for a roadway chicane for eastbound traffic.

On April 8, 2024, the study team met with the client team and two town council members for Old Orchard Beach to present the five options under consideration and to discuss the benefits and disadvantages of each option. During this meeting, it was decided that the smaller footprint options (option 4 and 5) should be eliminated from further study. The reasons for eliminating these options include:

- Traffic congestion during the summer months may be worse than the existing condition.
- Options 4 and 5 reduce mobility through the corridor compared to the other options.
- Traffic analysis does not follow traditional Maine DOT modeling methods for the smaller footprints.

It was agreed that options 1 thru 3 will be carried forward for further study and those options will be presented to the public for input. The study team did acknowledge that option 3 presents some safety concerns and is viewed as the least favored option remaining.

Traffic analysis and modeling has been completed for the options and is summarized in a traffic memo dated May 24, 2024. This memo can be found in Appendix C of this report.

The findings of the traffic analysis suggest that options 1 thru 3 will function at acceptable levels of service, and all three options will provide better results than the 2045 No Build condition.

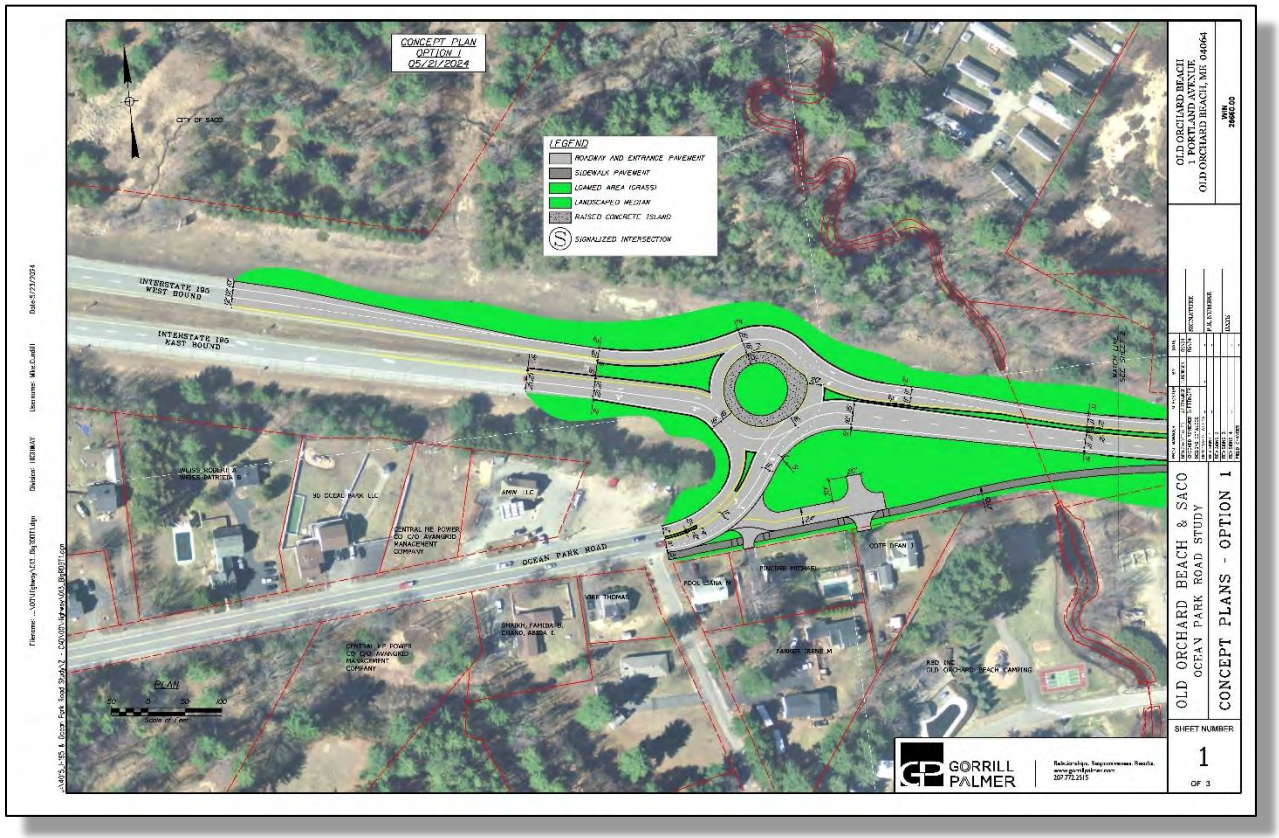
Summary of Options

As part of this study, the following three options have been considered: roundabout, signalized and unsignalized intersection. Detailed graphics for these options are provided in Appendix A of this report. A detailed description of each option is provided below:

Roundabout (option 1)

This option consists of a partial two-lane roundabout at the intersection of Interstate 195 and Ocean Park Road. Ocean Park Road is relocated to connect into I-195 sooner than the existing condition. Each of the three roadway approaches will include splitter islands and geometric curvature to control vehicle speeds. There are two lanes (thru and thru-right) entering the roundabout from I-195, two lanes (left, right) entering the roundabout from Ocean Park Road in the eastbound direction and two lanes (left, thru) entering the roundabout from Ocean Park Road in the westbound direction. There are two lanes exiting the roundabout on Ocean Park Road in the eastbound direction and single lane exits on the other two roadway segments. The roundabout layout has been designed to accommodate the turning movements of large vehicles such as a WB-67 truck, school bus, and fire truck. A concrete truck apron is proposed on the inner circle of the roundabout and sloped granite curbing is proposed around the outside perimeter. Bicycle and pedestrian accommodations are not provided at the roundabout, instead those accommodations are provided via a shared use pathway located in the old roadway corridor and provide connections along Ocean Park Road. There is also a new local street proposed to connect to two properties along the old roadway corridor.

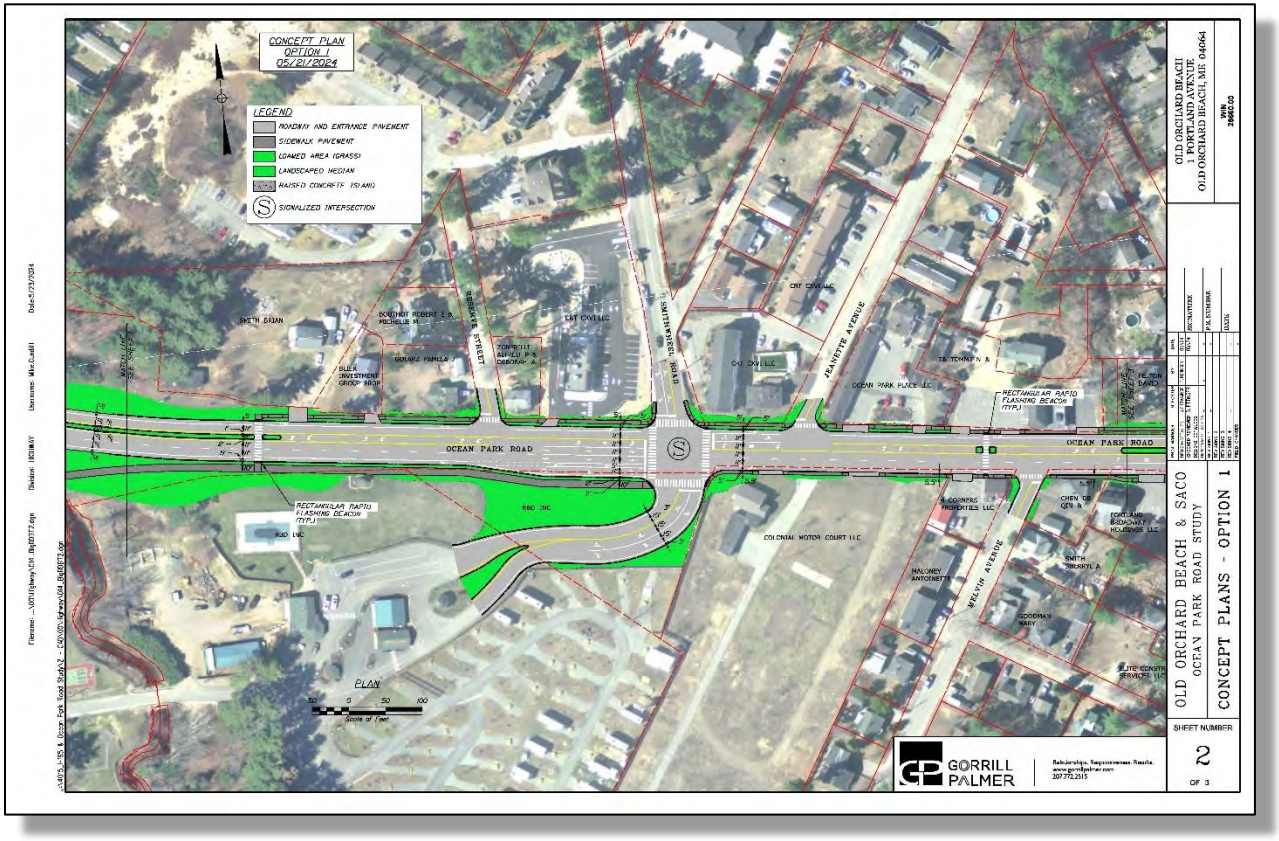
This option (and option 2) provides full access to and from Ocean Park Road in Saco. Currently, left turn movements from Ocean



Park Road onto the I-195 spur as well as the right turn movement from the I-195 spur onto Ocean Park Road are restricted. In the proposed design, all movements will be permitted. As a result, we anticipate that there will be an increase in traffic accessing this intersection from Saco, from the businesses along Ocean Park Road, the residential communities near Ocean Park Road and the Old Orchard Beach campground which has a secondary exit onto Ocean Park Road in Saco. Much of this traffic which currently travels up to the congested section of Main Street in Saco will now being using this new intersection to access the I-195 spur. We anticipate this connection will provide an easier and quicker access to the I-195 spur.

Between the I-195 spur intersection and the Smithwheel Road intersection, the Ocean Park Road corridor will include two travel lanes eastbound, one travel lane westbound and either a center turn lane or a raised center median. Additional turn lanes are provided at the Smithwheel Road intersection. There is a mid-block crosswalk located between the intersections to provide pedestrian and bicycle access to both sides of Ocean Park Road. This crosswalk will have a pedestrian refuge island and rapid flashing beacon assemblies. The 10' wide shared use pathway with esplanade continues to the Smithwheel Road intersection on the south side and a sidewalk with esplanade is present on the north side. The campground entrance is relocated to the Smithwheel Road intersection to provide a 4-way signalized intersection. Pedestrian accommodations are provided around the perimeter of the intersection, to include an esplanade, sidewalk, and crosswalks. Bicycles are accommodated by use of the shoulders, shared lanes, and shared use pathway.

Between the Smithwheel Road intersection and the Halfway intersection, the Ocean Park Road corridor will include two travel lanes eastbound, one travel lane westbound and either a center turn lane or a raised center median. Additional turn lanes are provided at both intersections. There is a mid-block crosswalk located between



the intersections to provide pedestrian access to both sides of Ocean Park Road. This crosswalk will have a pedestrian refuge island and rapid flashing beacon assemblies. The 10' wide shared use pathway with esplanade is replaced with a sidewalk on the south side and the proposed sidewalk remains on the north side. Esplanades are provided in areas where right of way and/or building impacts can be avoided. The Halfway intersection will be signalized and the layout will match the design from the prior study except that only one travel lane is proposed in the eastbound direction from Ocean Park Road to Saco Ave. The intersection layout including the travel lanes, turning lanes, shoulders, center medians, curbing, sidewalks, crosswalks, bike accommodations and access management will match the prior study recommendations.

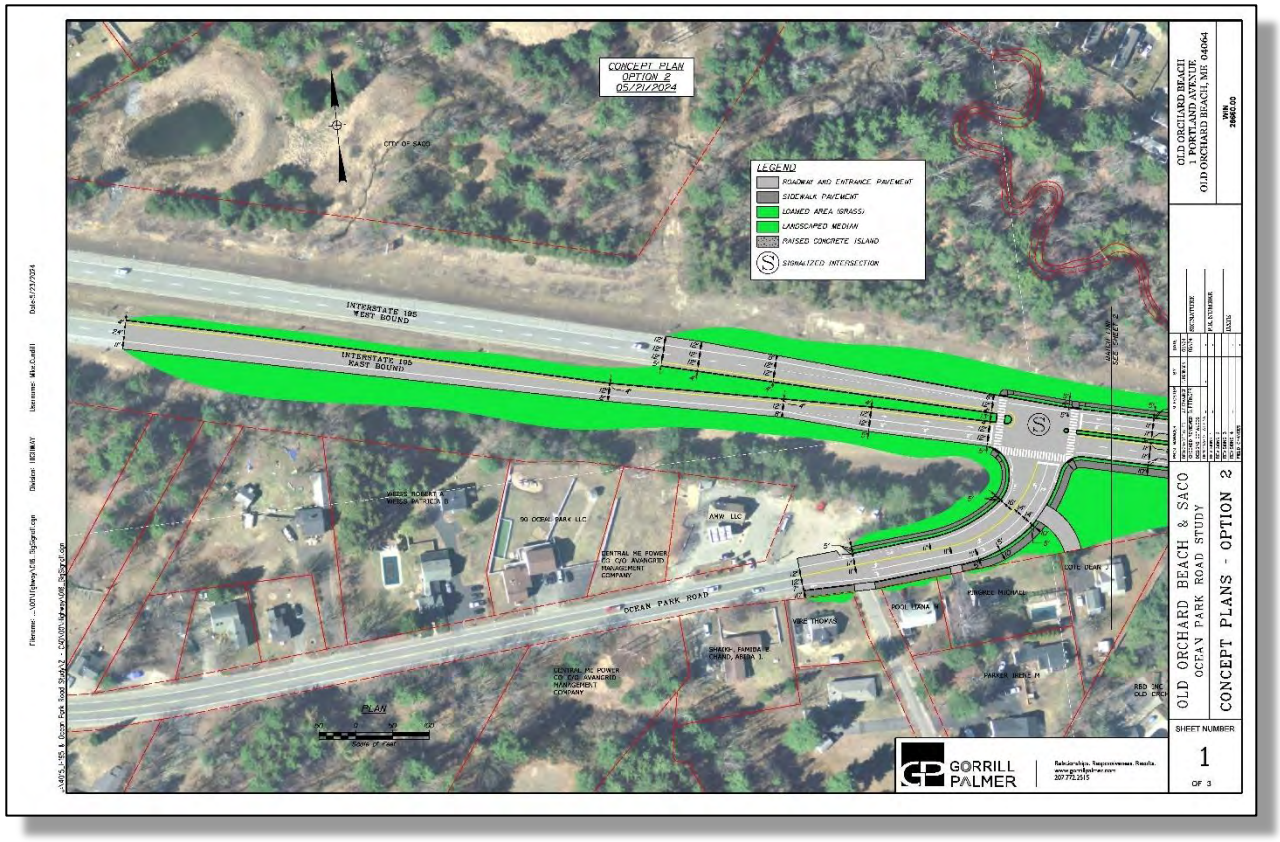
The layout will provide for 11' wide travel lanes, 11' wide turn lanes, 5' wide paved shoulders, curbing, closed drainage, esplanades of varying width (5' minimum) and 5'-6' wide paved sidewalks. The esplanades will be grassed or landscaped. Raised center medians of varying width (4' minimum) are proposed in select areas for traffic calming, pedestrian refuge and/or access management. A 10' wide shared use pathway is proposed from Ocean Park Road in Saco to the Smithwheel Road intersection and the campground entrance.

Bicycle accommodations are provided with 5 ft. wide paved shoulders throughout the study limits, in addition to being able to share the lane with vehicles or use the shared use pathway.

Access management or reduction of entrance opening widths are proposed throughout the corridor consistent with Maine DOT standards.

Signalized (option 2)

This option consists of a 3-way signalized intersection of Interstate 195 and Ocean Park Road. Ocean Park Road is relocated to connect into I-195 sooner than the existing condition. There are



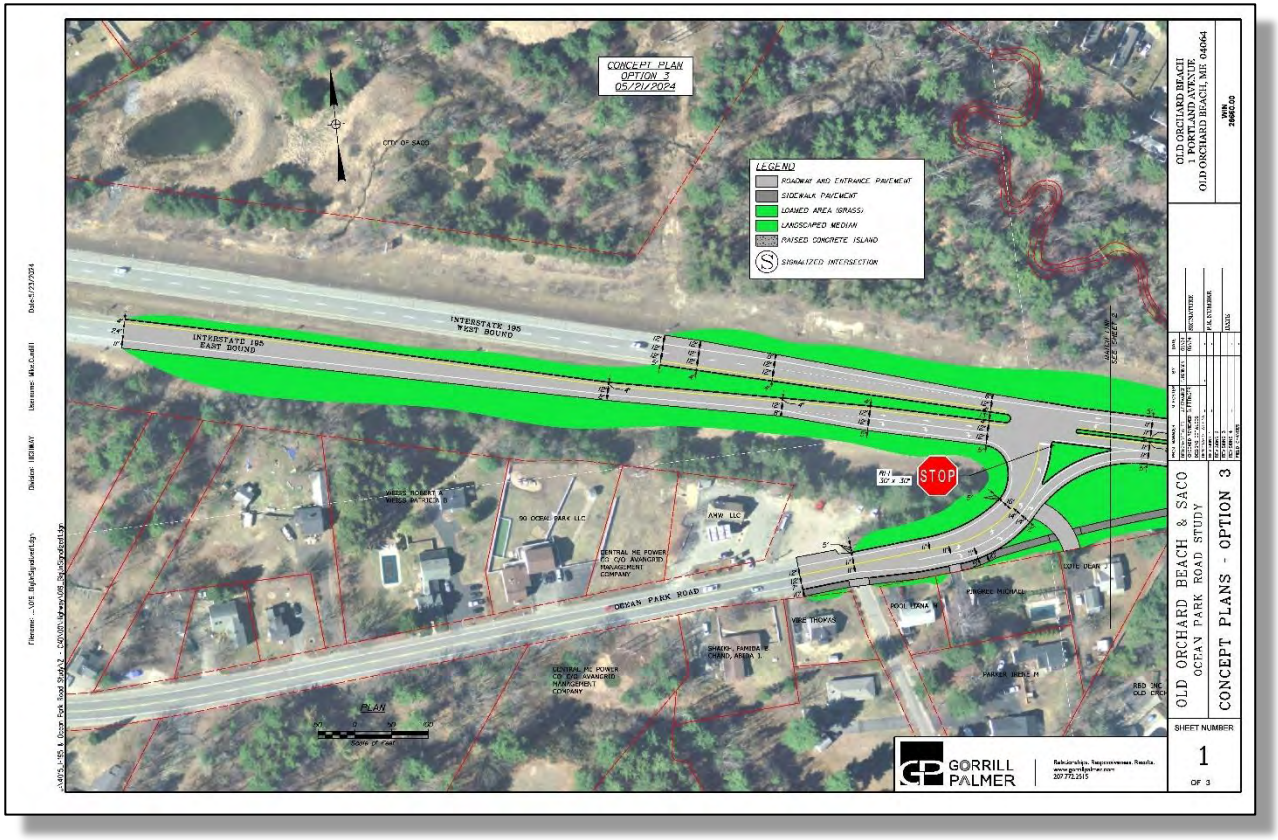
two lanes (thru and thru-right) entering the intersection from I-195, two lanes (left, right) entering the intersection from Ocean Park Road in the eastbound direction and two lanes (left, thru) entering the intersection from Ocean Park Road in the westbound direction. There are two lanes exiting the intersection on Ocean Park Road in the eastbound direction and single lane exits on the other two roadway segments. The intersection layout has been designed to accommodate the turning movements of large vehicles such as a WB-67 truck, school bus, and fire truck. Pedestrian accommodations are provided for this option around the perimeter of the intersection, to include an esplanades, sidewalks, and crosswalks. Bicycles are accommodated by use of the shoulders and shared lanes and shared use pathway. A shared use pathway is located at the intersection and along the Ocean Park Road corridor.

Between the I-195 spur intersection and the Smithwheel Road intersection, this signalized option will match the design of the roundabout option with the exception that the mid-block crossing is not proposed with this option. Otherwise, the roadway footprints are generally the same in both options.

Similarly, the roadway footprints of the signalize option and the roundabout option between the Smithwheel Road intersection and the Halfway intersection are generally the same.

Unsignalized (option 3)

This option consists of a 3-way unsignalized intersection of Interstate 195 and Ocean Park Road. Ocean Park Road is relocated to connect into I-195 sooner than the existing condition. There are two lanes (thru and right) entering the intersection from I-195, two lanes (left, right) entering the intersection from Ocean Park Road in the eastbound direction and two lanes (left, thru) entering the intersection from Ocean Park Road in the westbound direction. There are two lanes exiting the intersection on Ocean Park Road in the eastbound direction and single lane exits on the other two



roadway segments. The intersection layout has been designed to accommodate the turning movements of large vehicles such as a WB-67 truck, school bus, and fire truck. A turning lane with a channelization island is proposed for the Ocean Park Road right turn lane in the eastbound direction. A stop condition is proposed for the left turn lane on Ocean Park Road, turning onto I-195 in the westbound direction. Bicycle and pedestrian accommodations are not provided at the intersection, instead those accommodations are provided via a shared use pathway located in the old roadway corridor and provide connections along Ocean Park Road.

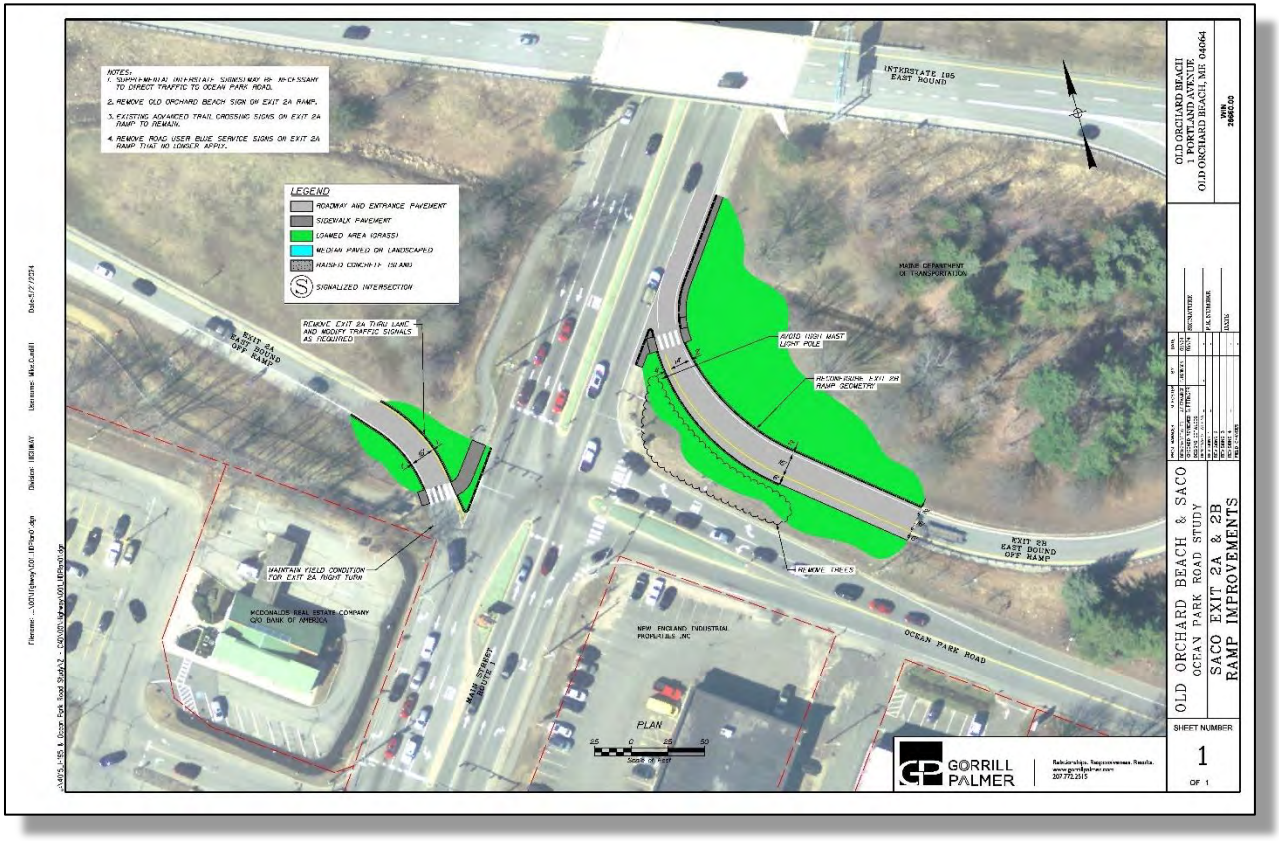
Between the I-195 spur intersection and the Smithwheel Road intersection, this unsignalized option will generally match the design of the roundabout option including the provision for a mid-block crossing.

The roadway footprint for the unsignalized option between the Smithwheel Road intersection and the Halfway intersection will generally match the other options.

I-195 Offramp Improvements at Main Street (Saco)

As mentioned in prior sections of this report, a safety audit was completed in 2021 for PACTS for the Main Street intersections with the Interstate 195 eastbound offramps, exits 2A and 2B. Both locations are considered high crash locations. Recommendations to mitigate those high crash locations include rerouting eastbound traffic on Exit 2A down I-195 to Ocean Park Road and providing for geometric improvements to the Exit 2B connection to Main Street, as shown on the graphic to the right.

As result, the thru movement for the exit 2A offramp has been eliminated and the intersection is configured to provide a yield right turn movement only. The traffic signal system will need to be upgraded to reflect the change on the traffic pattern and signal phasing and timing should be revisited as well. Also, supplemental interstate signing will be needed to direct traffic to Ocean Park Road.



The exit 2B offramp geometry will be reconfigured to provide improved safety and better sight distances. Tree clearing is proposed between the offramp and Ocean Park Road. Finally, there is an existing high mast light pole in the proximity to the gore area of this ramp configuration. The conceptual design for this work assumes there is adequate clear zone separation from this light pole, but this should be verified during the design phase.

Interstate 195 Traffic Calming

Excessive speed exiting the I-195 Spur in the eastbound direction is a major safety concern for this project. While some of the options proposed at the I-195 intersection with Ocean Park Road will provide for traffic calming and speed control measures, such as the roundabout, speed concerns remain for this area. As a result, this study recommends including traffic calming on the Interstate 195 prior to entering the study corridor. Recommendations include moving the alternating merge (lane drop) further away from the intersection (westward) approximately 1,000 ft. and providing for a roadway chicane between the merge and the intersection to further slow traffic down. This lane drop shift and chicane are recommended with any of the options being proposed. Detailed graphics for these traffic calming measures are provided in Appendix A of this report.

Dewey Ave

Dewey is local street located very near to the Halfway Intersection. It is a dead-end roadway with no secondary access and it services approximately eight residential properties. Due to its proximity to the Halfway intersection, access management is proposed for Dewey Ave, restricting left turn movements. After discussing this with the client team, a site visit was conducted on May 5, 2024 to review options for improving the access to Dewey Ave.

The following four options were developed:

- Connect Dewey Ave to Olympia Commons Condo Association driveway (option 1)
- Connect Dewey Ave to Oak Street (option 2)
- Connect Dewey Ave to Oak Street and Jeannette Ave (option 3)
- Provide jughandle turnaround at Oregon Ave (option 4).

Option 1 will require coordination with the Olympia Commons Condo Association and confirmation that their driveway was built to standards that can accept Dewey Ave traffic. Options 2 and 3 will require coordination with Cedric and Lauren Ann Minkin Trustees as property acquisition will be necessary for these options. It is also worth noting that options 1, 2, and 3 will cross an existing stream and therefore additional environmental permits may be necessary. Option 4 does not provide a secondary access to Dewey Ave however it does make left turn movements possible into Dewey Ave. Option 3 provides the best

neighborhood connectivity as well as provides the best access from Ocean Park Road to the neighborhood. Detailed graphics for these Dewey Ave options are provided in Appendix A of this report.

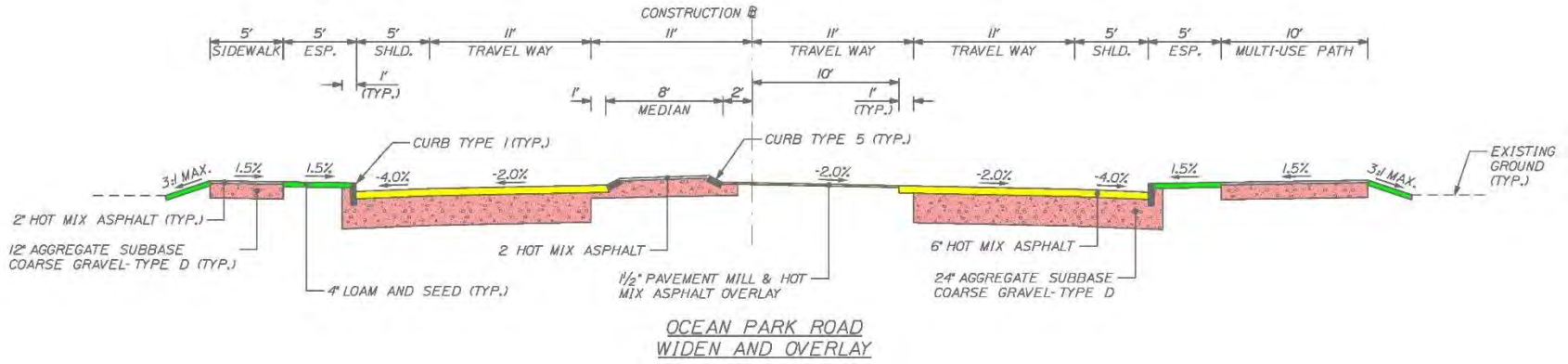
Typical Section

The typical roadway section for the Ocean Park Road corridor will be similar for each alternative and will include two 11 ft. travel lanes in the east bound direction, one 11 ft. travel lane in the westbound direction, 11 ft. turn lane, 5 ft. paved shoulders, vertical granite curbing on both sides, 0 ft. to 5 ft. grassed / landscaped esplanades, a 5 ft. to 6 ft. paved sidewalks on each side of the roadway. There is a section on the south side of the corridor where the sidewalk is replaced by a 10 ft. shared use pathway. The core of the existing roadway is assumed to be built and in good condition therefore the middle 22 ft. of the existing roadway is proposed for pavement mill and overlay only. The outer edges of the proposed roadway template will require full depth reconstruction. Pavement and gravel depth should follow Maine DOT standards. The esplanades will create landscaping and streetscape opportunities and should include shade trees and ornamental lighting.

Raised center medians will be proposed at select locations. Those will consist of slope granite curbing and landscaping, grass or pavement surface treatments.

ADA compliant ramps and crosswalks shall be provided within the study limits. Bicycles will be accommodated with 5 ft. paved shoulders and shared lanes at the intersections. A 10' shared use pathway is also available for bicycles along a portion of the corridor.

Vertical granite curbing with closed drainage and underdrain is proposed along the shoulder edge and sloped granite curbing is proposed at the center medians.



Conceptual Plans

The study team has prepared conceptual plans for each of the options presented in the previous section. Using base plans developed from aerial images and right of way and property line information from available GIS data, conceptual plans have been prepared for the three options: Roundabout, Signalized, and Unsignalized intersection. These concept plans show travel lanes, shoulders, curbing, esplanades, raised center medians, shared use pathway, sidewalks, and cross walks.

In addition to the three options, conceptual plans have been prepared for the Main Street & Interstate 195 Offramp improvements in Saco as well as conceptual plans for the I-195 roadway chicane and the Dewey Ave improvement options.

The plans are colored, and a color key is provided. A north arrow and bar scale is also provided for reference. A copy of the concept plans can be found in Appendix A of this report.

Construction & Project Costs

Construction Costs

The study team has developed an opinion of probable construction costs for each of the options considered in this study. Construction costs are the costs needed to build the project. Using the conceptual layouts developed for each of the options, preliminary quantities have been calculated, and construction costs have been estimated using Maine DOT average unit pricing and pay items. Work assumes full-depth construction of the necessary roadway widening as well as the proposed intersection improvements. A 25% contingency has been added to each of the construction cost estimates. The construction costs are presented in 2024 dollars and no escalation to future years has been included. The conceptual construction cost estimate for each option is summarized below:

Description	Conceptual Construction Costs
Roundabout (option 1)	$12,270,000
Signalized (option 2)	$12,320,000
Unsignalized (option 3)	$11,860,000
Saco Ramp Improvements	$530,000
Dewey Ave (option 3)	$340,000

Total project cost is a Maine DOT term that includes not only the construction costs, but also the engineering costs, inspection costs and right of way costs associated with a project. The study team has included engineering costs at 10% of construction costs for each option. Inspection costs have been estimated at 10% of the construction cost. Right of way costs are based on anticipated property impacts and the potential acquisition of land that may be needed for the project. The conceptual total project cost for each option is summarized below.

Description	Total Project Costs
Roundabout (option 1)	$15,930,000
Signalized (option 2)	$15,990,000
Unsignalized (option 3)	$15,440,000
Saco Ramp Improvements	$640,000
Dewey Ave (option 3)	$610,000

A detailed breakdown of all cost estimates can be found in Appendix B of this report, along with the concept plans for each of the options. The cost estimates provided in this report are considered conceptual and further refinements to the estimates can be expected during the design phase.

Property Impacts

Part of the evaluation for each option includes an assessment of potential property impact. While it is the goal of any transportation project to stay inside the limits of available public right of way, that is not always possible and the construction an expanded corridor with enhanced pedestrian/bicycle accommodations may require land acquisition.

Using available GIS mapping for property and right of way limits, the study team has developed concept plans for each of the options with a goal of minimizing property impacts, however property impacts are still realized for each option in this study. Below is a summary of anticipated property impacts for each of the options.

In terms of disclaimers, please note the information presented in this section are planning level assessments of property impacts based on conceptual plans, tax assessor data, and high-level estimates of land value and are not based on detailed designs with ground survey, accurate right of way and property line information. No certified land appraiser has been used in calculating land value for this study. Further design refinements and adjustments to property impacts will need to be completed during the design phase. Also, the true cost for land and right of way acquisition will need to be completed by qualified professionals during the design process.

As part of this assessment, the study team has identified parcels that will be partially impacted by the footprint of each option. The footprints of each option are similar and will have similar property impacts, therefore for this effort, work assumes the property impacts will be same regardless of the option selected.

Temporary grading rights can be defined as temporary grading of lawn areas and driveways as necessary to complete the construction but no permanent impacts or takes are necessary. We have identified 18 parcels that will require temporary grading rights. A value assessment of $1,000 per parcel is included in the right of way costs for temporary impacts.

Partial acquisitions can be defined as areas that require a permanent easement or partial take. These are areas where the proposed roadway template or intersection layout extend onto private property and land acquisition is needed to accommodate the proposed roadway footprint. This can include areas needed for sidewalks that might be located outside of the available right of way. These are often referred to as strip takes where only a strip of land along the right of way frontage is acquired. We have identified 13 parcels that will require partial acquisitions. A value assessment of $50,000 per parcel is included in the right of way costs for partial takes.

Full Takes can be defined as acquiring the full property including all land and buildings associated with that property. Full takes often occur with the proposed roadway project impacts a building or impacts the property enough that the remaining portion of the property is deemed non-confirming or an uneconomical remainder. We have identified one parcel (210-11-4) at the Halfway Intersection that requires a full take. A value assessment of $500,000 is included in the right of way costs for full takes.

We do not anticipate any right of way impacts for the Saco, Main Street & I-195 offramp work nor for the I-195 traffic calming work.

For the Dewey Ave options, we have identified one parcel (210-2-57) as requiring a full take. A value assessment of $200,000 is included in the right of way costs for the Dewey Ave estimate.

Recommendations

Evaluation Criteria

To assist in evaluating and comparing the options of this study, an evaluation matrix has been developed. The study team has established the following fourteen (14) criteria for evaluating the effectiveness of the options in meeting the purpose & need of the study. A simple definition or explanation of each criterion is below:

Traffic Operations – This criterion identifies and ranks the results of the traffic analysis, specifically the resulting 2045 levels of service (LOS) for each option. It is important that each option has an acceptable level of service of "D" or better. It is also important that the proposed option provide equal or better results than the 2045 No Build condition.

Improves Accessibility – This criterion checks to make sure that the option provides improved accessibility to & from side streets for vehicles and provides improved accessibility for bicycles and pedestrians.

Addresses High Crash Locations – This criterion identifies how well each option attempts to mitigate the high crash locations within the corridor.

Improves Safety (vehicles) – This criterion considers how well each option improves on the safety of the corridor when considering the crash history, crash patterns and contributing factors for those crashes. Improving vehicle safety is an important goal of this study.

Improves Safety (bicycles and pedestrians) – This criterion considers how well each option improves the safety for bicyclists and pedestrians within the corridor.

Addresses Speed Concerns – This criterion identified how well each option addresses speed control from the I-195 spur entering the study corridor.

Improves Confusing Geometry – This criterion considers how well each option addresses the confusing geometry at the Halfway intersection.

Improves Smithwheel Road Access – This criterion checks to make sure access to Smithwheel Road is improved.

Improves Weave – This criterion considers how well each option addresses the weave between the I-195 spur and the campground entrance.

Creates Confusing Geometry – This criterion considers how user friendly each option will be. It will assess whether the proposed design is confusing to the user or is it normal and conventional.

Property Impacts – Can each option be constructed within the limits of the existing right of way or is acquisition of additional property necessary to construct the option. It is our goal to avoid or minimize property impacts if possible.

Gateway Opportunities – How well does each option provide a gateway to the community and is there an opportunity to provide a statement of arrival to the community with each option.

Project Costs – How much does each option cost and how do the costs compare to each other. Project costs include construction costs, engineering costs, property costs and construction inspection costs.

Meets Purpose & Need – Does the option generally meet the purpose & need statement for the study.

Many of these criterions are represented in the purpose and need statement which is helpful when the options are compared to each other and to the NO Build condition.

Selection and Scoring Criteria

After evaluating and comparing the options to the purpose and need statement, to each other and to the No Build condition, the study team has populated the results of the evaluation criteria into a selection and scoring matrix. Using the fourteen evaluation criteria established by the study team, the following is a summary of findings for each of the options:

Traffic Operations – The traffic analysis and modeling suggest that the roundabout and unsignalized options provide the best traffic operation results and are slightly better than the signalized option. The No Build condition have a "F" LOS and very long delays.

Improves Accessibility – All three options equally provide improved accessibility to side streets, particularly for Smithwheel Road and all provide improved access for all modes. The No Build condition does not improve accessibility.

Addresses High Crash Locations – All three options address the high crash locations equally. The No Build condition does not.

Improves Safety (vehicles) – The roundabout option is the safest option, while the signalized option is better than the unsignalized option. The No Build condition scores poorly on this criterion and option 3 is not much better.

Improves Safety (bicycles and pedestrians) – The signalized option is the safest for bikes and pedestrians, while the roundabout option is better than the unsignalized option. All are better than the No Build condition.

Addresses Speed Concerns – The roundabout option does the best job in controlling speeds exiting the I-195 spur, while the signalized option does a better job at controlling speeds than the unsignalized option. Option 3 and the No Build condition score poorly on this criterion.

Old Orchard Beach / Saco, Ocean Park Road Study
WIN 26660.00
EVALUATION MATRIX

CRITERIA	Option 1 Roundabout at end of I-195	Option 2 Signal at end of I-195	Option 3 Unsignalized at end of I-195	*No Build* *Do Nothing*
Traffic Operations (LOS) (I-195/Smithwheel/Halfway)	LOS A/A/C	LOS C/A/C	LOS A/A/C	*LOS A/A/F*
Improves Accessibility (all Modes)	Yes	Yes	Yes	*No*
Addresses High Crash Locations (HCL)	Yes	Yes	Yes	*No*
Improves Safety (vehicles)	Safest	Less than Option 1	Less than Option 2	*No*
Improves Safety (pedestrians, bicycles)	Less than Option 2	Safest	Less than Option 1	*No*
Addresses Speed Concerns (from I-195)	Best	Less than Option 1	No	*No*
Improves Confusing Geometry (Halfway)	Yes	Yes	Yes	*No*
Improves Smithwheel Road Access	Yes	Yes	Yes	*No*
Improves Weave (I-195 to Smithwheel)	Yes	Yes	Better than No Build	*No*
Avoids Confusing Geometry (End of I-195)	Multilane Roundabout	Best	Similar to No Build	*No*
Property Impacts	All Options Same	All Options Same	All Options Same	*None*
Gateway Opportunities	Yes	Less than Option 1	Less than Option 2	*No*
Total Project Costs (Construction, PE, CE, ROW)	$15.9M	$16.0M	$15.4M	*None*
Meets Purpose & Need	Yes	Yes	No	*No*

RECOMMENDATION: Option 1, Roundabout at the end of Interstate 195

Improves Confusing Geometry – All three options improve the confusing geometry at the Halfway intersection equally. The No Build condition does not.

Improves Smithwheel Road Access – All three options improve access to Smithwheel Road equally. The No Build condition does not.

Improves Weave – The roundabout and signalize options do a good job at improving the weave distance between the I-195 spur and the campground entrance while the unsignalized option is better than the No Build condition but not as good as options 1 and 2. The No Build condition does not improve the weave distance.

Creates Confusing Geometry – The signalized option is the most conventional intersection layout and the least confusing. The roundabout option can be confusing for some users, particularly a partial two-lane roundabout and scores less than option 2. The unsignalized option is like the No Build condition in that both do little to improve on the confusing geometry.

Property Impacts – All of the options will have a similar level of property impacts, while the No Build condition scores well with no property impacts.

Gateway Opportunities – The roundabout option scores well as it provides good opportunities for gateway treatments. The signalized option scores less than the roundabout but better than the unsignalized option. The unsignalized option and No Build Condition do little to provide gateway opportunities.

Project Costs – All options have similar costs between $15.4M and $16.0M. None of the options score a high mark in this category, except the No-Build condition.

Meet Purpose & Need – The roundabout and signalized options both meet the purpose & need goals while the unsignalized option and No Build condition do not.

On the prior page are the results of the evaluation and scoring matrix findings. A red, yellow and green color coding has been applied to the findings to assist in drawing conclusions. A green coding is considered a good score, yellow is an average score and a red coding is considered a poor score. This matrix is also provided in Appendix E.

Recommendations

From review of the evaluation matrix, all options score better than the No-Build condition. The No-Build condition and the unsignalized option fail to meet the purpose and need criteria and therefore are not viable options for this study.

The signalized option scores less than the roundabout option on traffic operations, improving safety for vehicles, traffic calming exiting the I-195 spur and providing for gateway opportunities.

The roundabout option scores slightly less than the signalized option on improving safety for pedestrian and bicycles as well as avoiding confusing geometry but overall, the roundabout option scores better than the other options when considering all the evaluation criteria.

It is the recommendation of this study that the roundabout option which is option 1 be selected for advancement into the project development and preliminary design phase.

Appendix F provides renderings for the concepts.

Additional Comments

There are two transit stops along the Ocean Park Road corridor, one eastbound and one westbound. Both transit stops shall be maintained in the proposed design. Unfortunately, there is not enough right of way space to provide for separated transit facilities and buses are expected to use the shoulders and travel lane at the stop locations.

The concept plans show a dedicated right turn lane into the campground entrance on all concepts. The study team has reviewed the traffic operations with or without a right turn lane and found no noticeable difference in operations. It is the recommendation of this study team to remove the right turn lane into the campground and instead provide a thru-right lane in the eastbound direction on Ocean Park Road. This change will reduce the crosswalk distance for pedestrians.

The intersection layout for the relocated campground entrance should be designed to accommodate a fire truck and large campers without encroaching into opposing lanes.

The right turn movement from Smithwheel Road onto Ocean Park Road should be designed to accommodate vehicle movements without encroachment into the opposing lanes. Shifting of the proposed stop bars on Ocean Park Road may be required to accommodate turning movements.

The Old Salt Road intersection with Temple Ave should be designed to accommodate a delivery truck without encroachment into the opposing lanes.

There are existing overhead signs on Ocean Park Road eastbound near the Smithwheel Road intersection that should be relocated closer to the Halfway intersection. Those sign messages are "Old Orchard Beach (left)" and Ocean Park & Saco (thru right)." The size of the signs should be increased when they are replaced.

Signing is recommended at the exit drive for the Golden Nozzle Car Wash (located on Saco Ave opposite Oregon Ave) to restrict left turn movements. The raised center median on Saco Ave will discourage left turn movements, but signage should be installed to reinforce this restriction. Safety concerns exist if left turn movements are allowed.

Bike signage (W11-1 and "STATE LAW: 3 FEET MIN TO PASS BICYCLES OR PEDESTRIANS") is recommended at the termination of bike lanes on all legs of the selected option.

Bike signage ("BICYCLES MAY USE FULL LANE") is recommended on approaches to the intersections to reinforce the shared lane markings.

Raised crosswalks to slow traffic and improve yield compliance at pedestrian crossings should be considered and discussed during the design process. The study team understands that vertical traffic calming is permitted per the Maine DOT design guidance however study team also understands that challenges may exist for operators of truck/trailer/camper combinations as well as emergency responders to navigate vertical traffic calming features.

A five second lead pedestrian interval (LPI) is recommended for the traffic signal timings. This would allow time for pedestrians to enter the crosswalk before turning vehicles are allowed to proceed.

The design phase should consider implementation of stormwater treatment to minimize potential impacts to the Goosefare Brook and its tributaries. Treatments options may include bioretention cells, tree filters, etc.

A shared use pathway is proposed from Ocean Park Road in Saco to the Smithwheel Road intersection. As redevelopment occurs along the corridor, it is recommended that the shared use pathway be extended from the Smithwheel Road intersection to the Halfway intersection.

Consideration for separating the westbound traffic on Ocean Park Road entering I-195 with a median in the roundabout option should be investigated during the design phase.

It is likely that the roundabout option with full access to Ocean Park Road in Saco will change the traffic patterns and may result in additional traffic accessing the roundabout from Saco. Review of projected traffic volumes and the resulting footprint size for the roundabout should be investigated during the design phase.

Illegal parking occurs in front of the Dunkin facility on Ocean Park Road in the existing condition and concerns exist with illegal parking in the future condition with the proposed 5 ft. shoulder. Special signing and striping should be considered in this area during the design phase.

Appendix A

Concept Plans – Option 1 (Roundabout)

Filename: ...\00\Highway\013_BigRDBT1.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/23/2024

CONCEPT PLAN
OPTION 1
05/21/2024

CITY OF SACO

LEGEND

- ROADWAY AND ENTRANCE PAVEMENT
- SIDEWALK PAVEMENT
- LOAMED AREA (GRASS)
- LANDSCAPED MEDIAN
- RAISED CONCRETE ISLAND
- (S) SIGNALIZED INTERSECTION

INTERSTATE 195
WEST BOUND

INTERSTATE 195
EAST BOUND

MATCH LINE
SEE SHEET 2

WEISS ROBERT A
WEISS PATRICIA B

90 OCEAL PARK LLC

AMW LLC

CENTRAL ME POWER
CO C/O AVANGRID
MANAGEMENT
COMPANY

OCEAN PARK ROAD

VIRE THOMAS

SHAIKH, FAMIDA B.
CHAND, ABIDA I.

CENTRAL ME POWER
CO C/O AVANGRID
MANAGEMENT
COMPANY

POOL LIANA M

PINGREE MICHAEL

COTE DEAN J

PARKER IRENE M

RBD INC
OLD ORCHARD BEACH CAMPING

PLAN

50 0 50 100
Scale of Feet

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\013_BigRDBT1.dgn

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

		BY	DATE
PROJ. MANAGER	M. FOSTER		
DESIGN-DETAILED	J. FITZMAURICE	E. ROBINSON	05\24
CHECKED-REVIEWED	D. ETTINGER		05\24
DESIGN2-DETAILED2	–	–	–
DESIGN3-DETAILED3	–	–	–
REVISIONS 1	–	–	–
REVISIONS 2	–	–	–
REVISIONS 3	–	–	–
REVISIONS 4	–	–	–
FIELD CHANGES	–	–	–

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

CONCEPT PLANS - OPTION 1

GORRILL PALMER

Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

SHEET NUMBER

1

OF 3

CONCEPT PLAN OPTION 1 05/21/2024

LEGEND

- ROADWAY AND ENTRANCE PAVEMENT
- SIDEWALK PAVEMENT
- LOAMED AREA (GRASS)
- LANDSCAPED MEDIAN
- RAISED CONCRETE ISLAND
- (S) SIGNALIZED INTERSECTION

SMITH BRIAN
BOUTHOT ROBERT E & MICHELLE M
GOLARZ PAMELA J
BLIER INVESTMENT GROUP PROP
ZONFRILLI ALFRED P & DEBORAH A
CRT CXVI LLC
CRT CXVI LLC
CRT CXVI LLC
TA TOMMY N &
OCEAN PARK PLACE LLC
PELTON DAVID
RBD INC
RBD INC
COLONIAL MOTOR COURT LLC
4 CORNERS PROPERTIES LLC
CHEN DE QIN &
PORTLAND BROADWAY HOLDINGS LLC
SMITH SHERRYL A
MALONEY ANTOINETTE
GOODMAN MARY
ELITE CONSTR SERVICES LLC

RESERVE STREET
SMITH WHEEL ROAD
JEANETTE AVENUE
MELVIN AVENUE

OCEAN PARK ROAD
OCEAN PARK ROAD

MATCH LINE SEE SHEET 1
MATCH LINE SEE SHEET 3

RECTANGULAR RAPID FLASHING BEACON (TYP.)
RECTANGULAR RAPID FLASHING BEACON (TYP.)

PLAN
50 0 50 100
Scale of Feet

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN 26660.00

	M. FOSTER	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	J. FITZMAURICE	E. ROBINSON	05\24
CHECKED-REVIEWED	D. ETTINGER		05\24
DESIGN2-DETAILED2	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

SIGNATURE

P.E. NUMBER

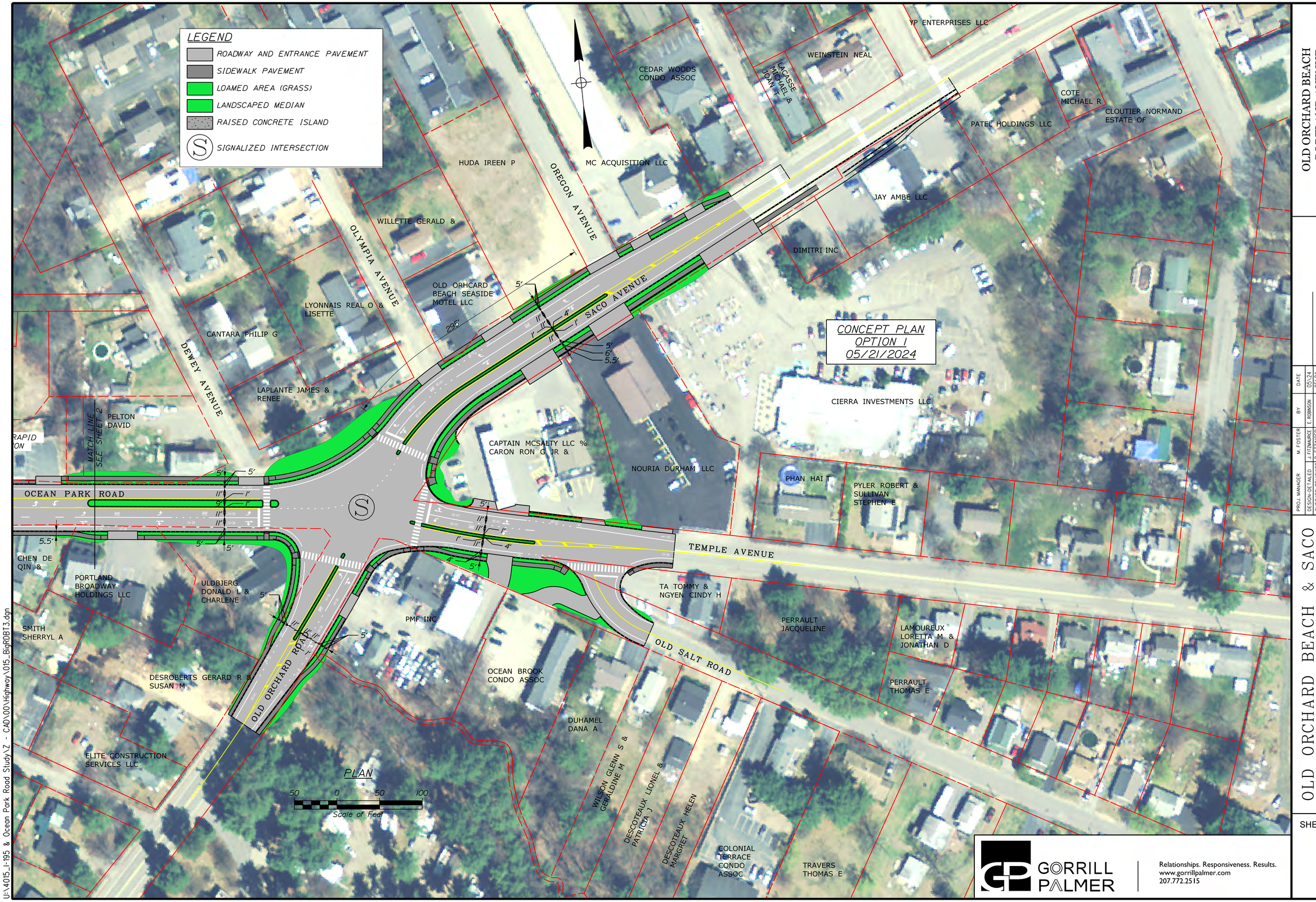
DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

CONCEPT PLANS - OPTION 1

SHEET NUMBER
2
OF 3

Filename: ...\00\Highway\014_BigRDBT2.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/23/2024
U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\014_BigRDBT2.dgn



OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

PROJ. MANAGER	M. FOSTER		
DESIGN-DETAILED	J. FITZMAURICE	E. ROBINSON	05\24
CHECKED-REVIEWED	D. ETTINGER		05\24
DESIGN2-DETAILED2	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

CONCEPT PLANS - OPTION 1

SHEET NUMBER
3
OF 3

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Filename: ...\00\Highway\015_BigRDBT3.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/23/2024

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\015_BigRDBT3.dgn

Appendix A

Concept Plans – Option 2 (Signalized)

Filename: ...\00\Highway\016_BigSign1.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/23/2024

CONCEPT PLAN
OPTION 2
05/21/2024

CITY OF SACO

LEGEND
- ROADWAY AND ENTRANCE PAVEMENT
- SIDEWALK PAVEMENT
- LOAMED AREA (GRASS)
- LANDSCAPED MEDIAN
- RAISED CONCRETE ISLAND
- (S) SIGNALIZED INTERSECTION

INTERSTATE 195
WEST BOUND

INTERSTATE 195
EAST BOUND

OCEAN PARK ROAD

MATCH LINE
SEE SHEET 2

WEISS ROBERT A
WEISS PATRICIA B

90 OCEAL PARK LLC

AMW LLC

CENTRAL ME POWER
CO C/O AVANGRID
MANAGEMENT
COMPANY

CENTRAL ME POWER
CO C/O AVANGRID
MANAGEMENT
COMPANY

SHAIKH, FAMIDA B.
CHAND, ABIDA I.

VIRE THOMAS

POOL LIANA M

PINGREE MICHAEL

COTE DEAN J

PARKER IRENE M

RBD INC
OLD ORCH

PLAN
50 0 50 100
Scale of Feet

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

	BY	DATE
PROJ. MANAGER	M. FOSTER	
DESIGN-DETAILED	J. FITZMAURICE	05\24
CHECKED-REVIEWED	E. ROBINSON	05\24
DESIGN2-DETAILED2	D. ETTINGER	-
DESIGN3-DETAILED3	-	-
REVISIONS 1	-	-
REVISIONS 2	-	-
REVISIONS 3	-	-
REVISIONS 4	-	-
FIELD CHANGES	-	-

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

CONCEPT PLANS - OPTION 2

SHEET NUMBER
1
OF 3

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\016_BigSign1.dgn

Filename: ...\00\Highway\017_BigSignal2.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/23/2024

CONCEPT PLAN
OPTION 2
05/21/2024

LEGEND
- ROADWAY AND ENTRANCE PAVEMENT
- SIDEWALK PAVEMENT
- LOAMED AREA (GRASS)
- LANDSCAPED MEDIAN
- RAISED CONCRETE ISLAND
- (S) SIGNALIZED INTERSECTION

MATCH LINE SEE SHEET 1

MATCH LINE SEE SHEET 3

SMITH BRIAN

BOUTHOT ROBERT E & MICHELLE M

BLIER INVESTMENT GROUP PROP

GOLARZ PAMELA J

RESERVE STREET

ZONFRILLI ALFRED P & DEBORAH A

CRT CXVI LLC

SMITHWHEEL ROAD

CRT CXVI LLC

CRT CXVI LLC

JEANETTE AVENUE

OCEAN PARK PLACE LLC

TA TO

OCEAN PARK ROAD

RBD INC

COLONIAL MOTOR COURT LLC

MALONEY ANTOINETTE

4 CO PROPE

COTE DEAN J

RBD INC

RBD INC
OLD ORCHARD BEACH CAMPING

VIN AVENUE

PLAN

50 0 50 100
Scale of Feet

U:\4015_I-195 & Ocean Park Road Study\Z - CADD\00\Highway\017_BigSignal2.dgn

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

		BY	DATE
PROJ. MANAGER	M. FOSTER		
DESIGN-DETAILED	J. FITZMAURICE	E. ROBINSON	05\24
CHECKED-REVIEWED	D. ETTINGER		05\24
DESIGN2-DETAILED2	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

SIGNATURE

P.E. NUMBER

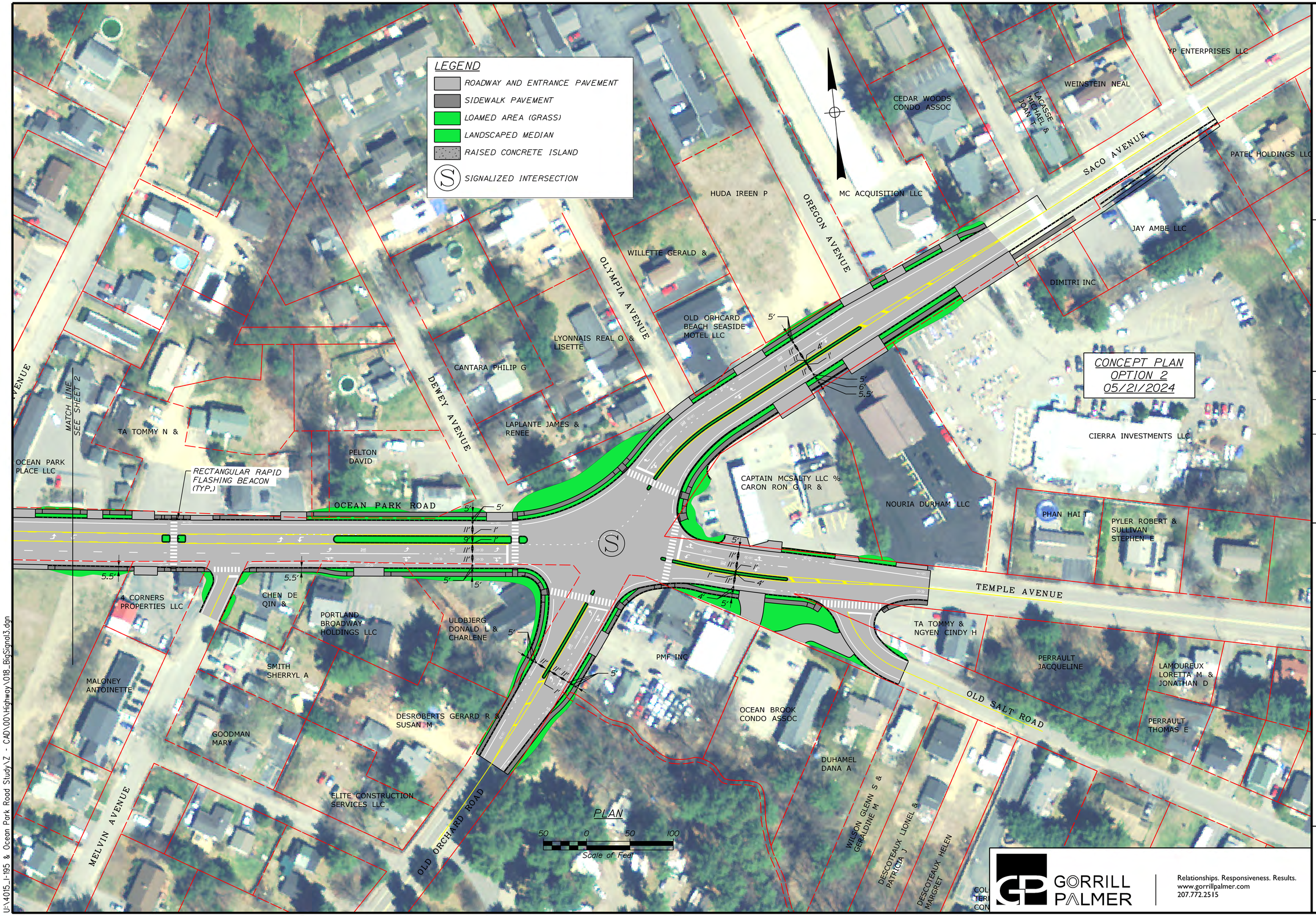
DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

CONCEPT PLANS - OPTION 2

SHEET NUMBER
2
OF 3

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515



OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

	BY	DATE
PROJ. MANAGER	M. FOSTER	
DESIGN-DETAILED	J. FITZMAURICE	05\24
CHECKED-REVIEWED	E. ROBINSON	05\24
DESIGN2-DETAILED2	D. ETTINGER	- -
DESIGN3-DETAILED3		- -
REVISIONS 1		- -
REVISIONS 2		- -
REVISIONS 3		- -
REVISIONS 4		- -
FIELD CHANGES		- -

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

CONCEPT PLANS - OPTION 2

SHEET NUMBER
3
OF 3

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Filename: ...\00\Highway\018_BigSignal3.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/23/2024

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\018_BigSignal3.dgn

Appendix A

Concept Plans – Option 3 (Unsignalized)

Filename: ...\019_BigUnSignalized1.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/23/2024

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\019_BigUnSignalized1.dgn

CONCEPT PLAN
OPTION 3
05/21/2024

CITY OF SACO

LEGEND
- ROADWAY AND ENTRANCE PAVEMENT
- SIDEWALK PAVEMENT
- LOAMED AREA (GRASS)
- LANDSCAPED MEDIAN
- RAISED CONCRETE ISLAND
- (S) SIGNALIZED INTERSECTION

INTERSTATE 195
EAST BOUND

INTERSTATE 195
WEST BOUND

MATCH LINE
SEE SHEET 2

RI-1
30" x 30"
STOP

WEISS ROBERT A
WEISS PATRICIA B

90 OCEAL PARK LLC

AMW LLC

CENTRAL ME POWER
CO C/O AVANGRID
MANAGEMENT
COMPANY

OCEAN PARK ROAD

COTE DEAN J

PINGREE MICHAEL

POOL LIANA M

VIRE THOMAS

SHAIKH, FAMIDA B.
CHAND, ABIDA I.

CENTRAL ME POWER
CO C/O AVANGRID
MANAGEMENT
COMPANY

PARKER IRENE M

RBD INC
OLD ORCH

PLAN
50 0 50 100
Scale of Feet

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

	BY	DATE
PROJ. MANAGER	M. FOSTER	
DESIGN-DETAILED	J. FITZMAURICE	05\24
CHECKED-REVIEWED	E. ROBINSON	05\24
DESIGN2-DETAILED2	D. ETTINGER	-
DESIGN3-DETAILED3		-
REVISIONS 1		-
REVISIONS 2		-
REVISIONS 3		-
REVISIONS 4		-
FIELD CHANGES		-

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

CONCEPT PLANS - OPTION 3

SHEET NUMBER
1
OF 3

CONCEPT PLAN
OPTION 3
05/21/2024

LEGEND

- ROADWAY AND ENTRANCE PAVEMENT
- SIDEWALK PAVEMENT
- LOAMED AREA (GRASS)
- LANDSCAPED MEDIAN
- RAISED CONCRETE ISLAND
- (S) SIGNALIZED INTERSECTION

MATCH LINE SEE SHEET 1

MATCH LINE SEE SHEET 3

SMITH BRIAN

BOUTHOT ROBERT E & MICHELLE M

RESERVE STREET

GOLARZ PAMELA J

BLIER INVESTMENT GROUP PROP

ZONFRILLI ALFRED P & DEBORAH A

CRT CXVI LLC

SMITHWHEEL ROAD

JEANETTE AVENUE

OCEAN PARK PLACE LLC

RECTANGULAR RAPID-FLASHING BEACON (TYP.)

OCEAN PARK ROAD

RBD INC

COLONIAL MOTOR COURT LLC

MALONEY ANTOINETTE

COTE DEAN J

RBD INC
OLD ORCHARD BEACH CAMPING

PLAN

50 0 50 100
Scale of Feet

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

	BY	DATE
PROJ. MANAGER	M. FOSTER	
DESIGN-DETAILED	J. FITZMAURICE	E. ROBINSON 05\24
CHECKED-REVIEWED	D. ETTINGER	05\24
DESIGN2-DETAILED2	-	-
DESIGN3-DETAILED3	-	-
REVISIONS 1	-	-
REVISIONS 2	-	-
REVISIONS 3	-	-
REVISIONS 4	-	-
FIELD CHANGES	-	-

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

CONCEPT PLANS - OPTION 3

SHEET NUMBER
2
OF 3

Filename: ...\020_BigUnSignolized2.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/23/2024

U:\4015_I-95 & Ocean Park Road Study\Z - CAD\00\Highway\020_BigUnSignolized2.dgn

Filename: ...\021_BigUnSignalized3.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/23/2024

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\021_BigUnSignalized3.dgn

LEGEND

- ROADWAY AND ENTRANCE PAVEMENT
- SIDEWALK PAVEMENT
- LOAMED AREA (GRASS)
- LANDSCAPED MEDIAN
- RAISED CONCRETE ISLAND
- (S) SIGNALIZED INTERSECTION

CONCEPT PLAN
OPTION 3
05/21/2024

OCEAN PARK ROAD
SACO AVENUE
TEMPLE AVENUE
OLD SALT ROAD
OLD ORCHARD ROAD
OREGON AVENUE
OLYMPIA AVENUE
DEWEY AVENUE
MELVIN AVENUE

MATCH LINE SEE SHEET 2

RECTANGULAR RAPID FLASHING BEACON (TYP.)

295'

PLAN
50 0 50 100
Scale of Feet

TA TOMMY N &
OCEAN PARK PLACE LLC
PELTON DAVID
LAPLANTE JAMES & RENEE
LYONNAIS REAL O & LISETTE
CANTARA PHILIP G
WILLETTE GERALD &
HUDA IREEN P
OLD ORHCARD BEACH SEASIDE MOTEL LLC
MC ACQUISITION LLC
CEDAR WOODS CONDO ASSOC
LACASSE MICHAEL & JOAN T
WEINSTEIN NEAL
YP ENTERPRISES LLC
PATEL HOLDINGS LLC
JAY AMBE LLC
DIMITRI INC
CIERRA INVESTMENTS LLC
CAPTAIN MCSALTY LLC % CARON RON G JR &
NOURIA DURHAM LLC
PHAN HAI T
PYLER ROBERT & SULLIVAN STEPHEN E
TA TOMMY & NGYEN CINDY H
PERRAULT JACQUELINE
LAMOUREUX LORETTA M & JONATHAN D
PERRAULT THOMAS E
4 CORNERS PROPERTIES LLC
CHEN DE QIN &
PORTLAND BROADWAY HOLDINGS LLC
ULDBJERG DONALD L & CHARLENE
SMITH SHERRYL A
MALONEY ANTOINETTE
GOODMAN MARY
DESROBERTS GERARD R & SUSAN M
ELITE CONSTRUCTION SERVICES LLC
PMF INC
OCEAN BROOK CONDO ASSOC
DUHAMEL DANA A
WILSON GLENN S & GERALDINE M
DESCOTEAUX LIONEL & PATRICIA J
DESCOTEAUX HELEN MARGRET

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

		BY	DATE
PROJ. MANAGER	M. FOSTER		
DESIGN-DETAILED	J. FITZMAURICE	E. ROBINSON	05\24
CHECKED-REVIEWED	D. ETTINGER		05\24
DESIGN2-DETAILED2	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

CONCEPT PLANS - OPTION 3

SHEET NUMBER
3
OF 3

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Appendix A

Concept Plans – Saco, Main Street & I-195 Offramps

NOTES:
1. SUPPLEMENTAL INTERSTATE SIGN(S) MAY BE NECESSARY TO DIRECT TRAFFIC TO OCEAN PARK ROAD.
2. REMOVE OLD ORCHARD BEACH SIGN ON EXIT 2A RAMP.
3. EXISTING ADVANCED TRAIL CROSSING SIGNS ON EXIT 2A RAMP TO REMAIN.
4. REMOVE ROAD USER BLUE SERVICE SIGNS ON EXIT 2A RAMP THAT NO LONGER APPLY.

LEGEND
- ROADWAY AND ENTRANCE PAVEMENT
- SIDEWALK PAVEMENT
- LOAMED AREA (GRASS)
- MEDIAN PAVED OR LANDSCAPED
- RAISED CONCRETE ISLAND
- (S) SIGNALIZED INTERSECTION

INTERSTATE 195
EAST BOUND

MAINE DEPARTMENT
OF TRANSPORTATION

EXIT 2A
EAST BOUND
OFF RAMP

REMOVE EXIT 2A THRU LANE
AND MODIFY TRAFFIC SIGNALS
AS REQUIRED

AVOID HIGH MAST
LIGHT POLE

RECONFIGURE EXIT 2B
RAMP GEOMETRY

14'
4'
2'
16'
1'
1'
16'
6'
2'
16'
6'
2'

MAINTAIN YIELD CONDITION
FOR EXIT 2A RIGHT TURN

REMOVE TREES

EXIT 2B
EAST BOUND
OFF RAMP

MCDONALDS REAL ESTATE COMPANY
C/O BANK OF AMERICA

NEW ENGLAND INDUSTRIAL
PROPERTIES INC

MAIN STREET
ROUTE 1

OCEAN PARK ROAD

PLAN

25 0 25 50
Scale of Feet

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

		BY	DATE
PROJ. MANAGER	M. FOSTER		
DESIGN-DETAILED	J. FITZMAURICE	E. ROBINSON	05\24
CHECKED-REVIEWED	D. ETTINGER		05\24
DESIGN2-DETAILED2	–	–	–
DESIGN3-DETAILED3	–	–	–
REVISIONS 1	–	–	–
REVISIONS 2	–	–	–
REVISIONS 3	–	–	–
REVISIONS 4	–	–	–
FIELD CHANGES	–	–	–

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

SACO EXIT 2A & 2B
RAMP IMPROVEMENTS

SHEET NUMBER
1
OF 1

Filename: ...\00\Highway\001_HDPlan01.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/21/2024

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\001_HDPlan01.dgn

Appendix A

Concept Plans – Interstate 195 Traffic Calming

Filename: ...\00\Highway\002_MergePlan1.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/21/2024

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\002_MergePlan1.dgn

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

	BY	DATE
PROJ. MANAGER	M. FOSTER	
DESIGN-DETAILED	J. FITZMAURICE	05\24
CHECKED-REVIEWED	D. ETTINGER	05\24
DESIGN2-DETAILED2	-	-
DESIGN3-DETAILED3	-	-
REVISIONS 1	-	-
REVISIONS 2	-	-
REVISIONS 3	-	-
REVISIONS 4	-	-
FIELD CHANGES	-	-

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

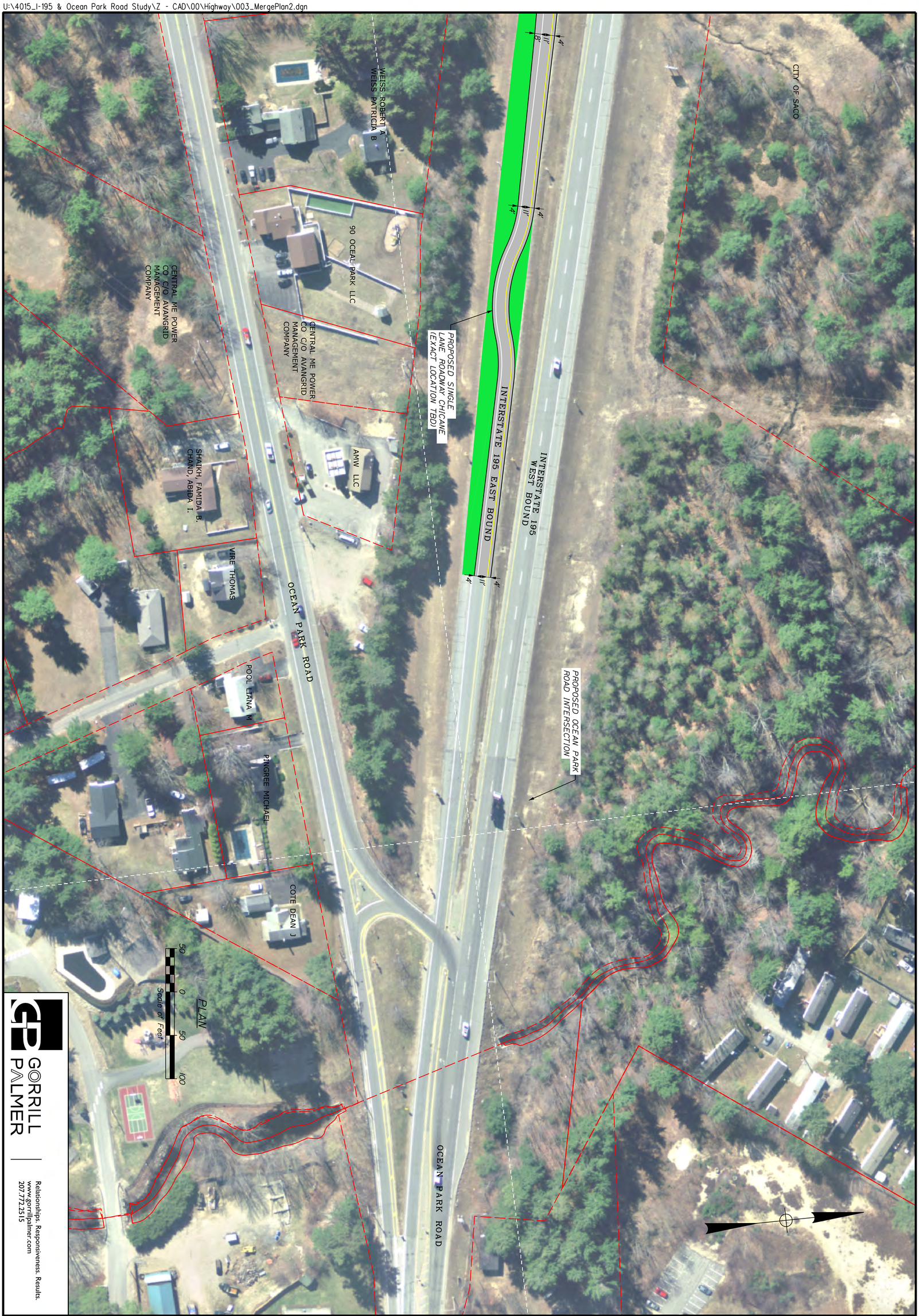
INTERSTATE 195 TRAFFIC
CALMING IMPROVEMENTS

SHEET NUMBER
1
OF 2

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Filename: ...\00\Highway\003_MergePlan2.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/21/2024

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\003_MergePlan2.dgn



GORRILL PALMER

Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

SHEET NUMBER 2 OF 2

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY
INTERSTATE 195 TRAFFIC CALMING IMPROVEMENTS

PROJ. MANAGER	M. FOSTER	BY	DATE
DESIGN-DETAILED	J. FITZMAURICE	E. ROBINSON	05\24
CHECKED-REVIEWED	D. ETTINGER		05\24
DESIGN2-DETAILED2	_	_	_
DESIGN3-DETAILED3	_	_	_
REVISIONS 1	_		_
REVISIONS 2	_		_
REVISIONS 3	_		_
REVISIONS 4	_		_
FIELD CHANGES			_

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

Appendix A

Concept Plans – Dewey Avenue

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

	BY	DATE
PROJ. MANAGER	M. FOSTER	
DESIGN-DETAILED	J. FITZMAURICE	05\24
CHECKED-REVIEWED	D. ETTINGER	05\24
DESIGN2-DETAILED2	-	-
DESIGN3-DETAILED3	-	-
REVISIONS 1	-	-
REVISIONS 2	-	-
REVISIONS 3	-	-
REVISIONS 4	-	-
FIELD CHANGES	-	-

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

DEWEY AVENUE
CONNECTION OPTIONS

SHEET NUMBER
1
OF 4

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Filename: ...\00\Highway\005_DeweyOpt1.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/21/2024

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\005_DeweyOpt1.dgn

Filename: ...\00\Highway\006_DeweyOp12.dgn Division: HIGHWAY Username: Mike.Cundiff Date:5/21/2024

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\006_DeweyOp12.dgn

HOLLAND BONNIE R
STEVENS VITTORIA
MINKIN CEDRIC & LAUREN ANN TRUSTEES
OAK STREET
BJB REALTY LLC
MINKIN CEDRIC & LAUREN ANN TRUSTEES
OPTION 2
OREGON SQUARE CONDO ASSOC
HUBER LUKE D
OLYMPIA COMMONS CONDO ASSOC
OREGON AVENUE
CEDAR WOODS CONDO ASSOC
WEINSTEIN NEAL
LACASSE MICHAEL & JOHN T
GREENLEE SUZANNE R
ASHERMAN REED V
DEVOU GARY L & JANET A (JT)
BRIEVA JANET D & DAVID
RAY SAMARAE
HUDA IREEN P
MC ACQUISITION LLC
SAWICKI JOHN & NAPOLITANO DEBRA
KANE SARAH M
RAMANOW KAREN L
JAY AMBE LLC
PELLETIER DONALD G & KATHY A
SSEAVEY RICHARD E & DIANE
GANNON BARRY & ROBERTA
WILLETTE GERALD &
SACO AVENUE
JEANETTE AVENUE
GEYER DANIEL N
DIMITRI INC
SLEE SUSAN J
OLYMPIA AVENUE
OLD ORHCARD BEACH SEASIDE MOTEL LLC
BONITA COURT II
SMITH KIRK M & HELEN A
LYONNAIS REAL O & LISETTE
CANTARA PHILIP G
TURNER GEORGE W & MARIE
DEWEY AVENUE
LAPLANTE JAMES & RENEE
CRT CXVI LLC
TA TOMMY N &
CIERRA INVESTMENTS LLC
PELTON DAVID
OCEAN PARK PLACE LLC
CAPTAIN MCSALTY LLC % CARON RON G JR &
NOURIA DURHAM LLC
PHAN HAI T
OCEAN PARK ROAD
TEMPLE AVENUE

PLAN
50 0 50 100
Scale of Feet

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN 26660.00

	BY	DATE
PROJ. MANAGER	M. FOSTER	
DESIGN-DETAILED	J. FITZMAURICE	05\24
CHECKED-REVIEWED	D. ETTINGER	05\24
DESIGN2-DETAILED2	-	-
DESIGN3-DETAILED3	-	-
REVISIONS 1	-	-
REVISIONS 2	-	-
REVISIONS 3	-	-
REVISIONS 4	-	-
FIELD CHANGES	-	-

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY
DEWEY AVENUE
CONNECTION OPTIONS

SHEET NUMBER
2
OF 4

Filename: ...\00\Highway\007_DeweyOpt3.dgn Username: Mike.Cundiff Division: HIGHWAY Date:5/21/2024

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\007_DeweyOpt3.dgn

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

	BY	DATE
PROJ. MANAGER	M. FOSTER	
DESIGN-DETAILED	J. FITZMAURICE	05\24
CHECKED-REVIEWED	D. ETTINGER	05\24
DESIGN2-DETAILED2	-	-
DESIGN3-DETAILED3	-	-
REVISIONS 1	-	-
REVISIONS 2	-	-
REVISIONS 3	-	-
REVISIONS 4	-	-
FIELD CHANGES	-	-

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY
DEWEY AVENUE
CONNECTION OPTIONS

GORRILL PALMER

Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

SHEET NUMBER
3
OF 4

OLD ORCHARD BEACH
1 PORTLAND AVENUE
OLD ORCHARD BEACH, ME 04064

WIN
26660.00

	BY	DATE
PROJ. MANAGER	M. FOSTER	
DESIGN-DETAILED	J. FITZMAURICE	05\24
CHECKED-REVIEWED	D. ETTINGER	05\24
DESIGN2-DETAILED2	-	-
DESIGN3-DETAILED3	-	-
REVISIONS 1	-	-
REVISIONS 2	-	-
REVISIONS 3	-	-
REVISIONS 4	-	-
FIELD CHANGES	-	-

SIGNATURE

P.E. NUMBER

DATE

OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY

DEWEY AVENUE
CONNECTION OPTIONS

SHEET NUMBER
4
OF 4

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Filename: ...\00\Highway\008_DeweyOpt4.dgn Username: Mike.Cundiff Division: HIGHWAY Date:5/21/2024

U:\4015_I-195 & Ocean Park Road Study\Z - CAD\00\Highway\008_DeweyOpt4.dgn

Appendix B

Cost Estimates

Job Number: 4015
MaineDOT WIN: 26660.00
Project Location: OOB & Saco, Ocean Park Road Study
Comments: Planning Level Cost Estimates

From: Gorrill Palmer
Date: 8/28/2024

Calculated By: M Cundiff
Checked By: D Ettinger
Reviewed By:

Notes:
1. Planning level cost estimates.
2. Costs calculated for major pay items only. Contingency provided for remaining items.
3. Costs based on planning graphics dated 5/21/2024.
4. Total costs include construction, engineering, right of way, and inspection costs.
5. Excludes utility, environmental, and geotechnical costs.
6. Assumes 1.5" mill and pavement overlay for roadway core (20' width).
7. Assumes full depth reconstruction (6" HMA & 24" Gravel) outside core.
9. Assumes granite curbing, closed drainage, and bituminuous sidewalks/pathways.
8. Assumes 4" pavement and 18" gravel on local roads.
9. All options include I-195 traffic calming (chicane) work.
10. Assumes granite curbing, closed drainage, and bituminuous sidewalks/pathways.

ROAD DESCRIPTION: Roundabout - Option 1

Item	Item Description	Unit	Unit Price	Quantity	Cost
202.202	REMOVE PAVEMENT SURFACE	SY	$100.00	3800	$380,000.00
203.20	COMMON EXCAVATION	CY	$25.00	28700	$717,500.00
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	CY	$45.00	22600	$1,017,000.00
403.208	HOT MIX ASPHALT, 12.5 MM NOMINAL MAXIMUM SIZE	T	$200.00	11600	$2,320,000.00
403.209	HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS)	T	$350.00	410	$143,500.00
502.342	STR. CONCRETE ROADWAY, TRUCK APRON	CY	$800.00	130	$104,000.00
604.00	CATCH BASINS	EA	$5,000.00	36	$180,000.00
605.00	UNDERDRAIN	LF	$90.00	6700	$603,000.00
609.11	VERTICAL CURB TYPE 1	LF	$60.00	5300	$318,000.00
609.34	SLOPE CURB TYPE 5	LF	$75.00	3300	$247,500.00
609.341	SLOPE CURB TYPE 5 - TRUCK APRON	LF	$250.00	350	$87,500.00
621.00	LANDSCAPING	LS	$300,000.00	1	$300,000.00
634.00	LIGHTING	LS	$1,000,000.00	1	$1,000,000.00
643.00	TRAFFIC SIGNAL	LS	$350,000.00	2	$700,000.00
652.00	TRAFFIC CONTROL	LS	$300,000.00	1	$300,000.00
652.38	FLAGGERS	HR	$50.00	8000	$400,000.00
659.10	MOBILIZATION	LS	$1,000,000.00	1	$1,000,000.00

SUBTOTAL =	$9,818,000.00
25% CONTINGENCY =	$2,454,500.00
CONSTRUCTION TOTAL =	$12,272,500.00
SAY =	**$12,270,000.00**

ENGINEERING (10% CONST) =	$1,227,000.00
INSPECTION (10% CONST) =	$1,227,000.00
RIGHT OF WAY =	$1,200,000.00
PROJECT COST TOTAL =	$15,924,000.00
SAY =	**$15,930,000.00**

Job Number: 4015
MaineDOT WIN: 26660.00
Project Location: OOB & Saco, Ocean Park Road Study
Comments: Planning Level Cost Estimates

From: Gorrill Palmer
Date: 8/28/2024

Calculated By: M Cundiff
Checked By: D Ettinger
Reviewed By:

Notes:
1. Planning level cost estimates.
2. Costs calculated for major pay items only. Contingency provided for remaining items.
3. Costs based on planning graphics dated 5/21/2024.
4. Total costs include construction, engineering, right of way, and inspection costs.
5. Excludes utility, environmental, and geotechnical costs.
6. Assumes 1.5" mill and pavement overlay for roadway core (20' width).
7. Assumes full depth reconstruction (6" HMA & 24" Gravel) outside core.
9. Assumes granite curbing, closed drainage, and bituminuous sidewalks/pathways.
8. Assumes 4" pavement and 18" gravel on local roads.
9. All options include I-195 traffic calming (chicane) work.
10. Assumes granite curbing, closed drainage, and bituminuous sidewalks/pathways.

ROAD DESCRIPTION: Signal - Option 2

Item	Item Description	Unit	Unit Price	Quantity	Cost
202.202	REMOVE PAVEMENT SURFACE	SY	$100.00	3800	$380,000.00
203.20	COMMON EXCAVATION	CY	$25.00	26200	$655,000.00
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	CY	$45.00	20700	$931,500.00
403.208	HOT MIX ASPHALT, 12.5 MM NOMINAL MAXIMUM SIZE	T	$200.00	10700	$2,140,000.00
403.209	HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS)	T	$350.00	475	$166,250.00
502.342	STR. CONCRETE ROADWAY, TRUCK APRON	CY	$800.00	0	$0.00
604.00	CATCH BASINS	EA	$5,000.00	36	$180,000.00
605.00	UNDERDRAIN	LF	$90.00	7000	$630,000.00
609.11	VERTICAL CURB TYPE 1	LF	$60.00	7000	$420,000.00
609.34	SLOPE CURB TYPE 5	LF	$75.00	4000	$300,000.00
609.341	SLOPE CURB TYPE 5 - TRUCK APRON	LF	$250.00	0	$0.00
621.00	LANDSCAPING	LS	$300,000.00	1	$300,000.00
634.00	LIGHTING	LS	$1,000,000.00	1	$1,000,000.00
643.00	TRAFFIC SIGNAL	LS	$350,000.00	3	$1,050,000.00
652.00	TRAFFIC CONTROL	LS	$300,000.00	1	$300,000.00
652.38	FLAGGERS	HR	$50.00	8000	$400,000.00
659.10	MOBILIZATION	LS	$1,000,000.00	1	$1,000,000.00

SUBTOTAL =	$9,852,750.00
25% CONTINGENCY =	$2,463,187.50
CONSTRUCTION TOTAL =	$12,315,937.50
SAY =	**$12,320,000.00**

ENGINEERING (10% CONST) =	$1,232,000.00
INSPECTION (10% CONST) =	$1,232,000.00
RIGHT OF WAY =	$1,200,000.00
PROJECT COST TOTAL =	$15,984,000.00
SAY =	**$15,990,000.00**

Job Number: 4015
MaineDOT WIN: 26660.00
Project Location: OOB & Saco, Ocean Park Road Study
Comments: Planning Level Cost Estimates

From: Gorrill Palmer
Date: 8/28/2024

Calculated By: M Cundiff
Checked By: D Ettinger
Reviewed By:

Notes:
1. Planning level cost estimates.
2. Costs calculated for major pay items only. Contingency provided for remaining items.
3. Costs based on planning graphics dated 5/21/2024.
4. Total costs include construction, engineering, right of way, and inspection costs.
5. Excludes utility, environmental, and geotechnical costs.
6. Assumes 1.5" mill and pavement overlay for roadway core (20' width).
7. Assumes full depth reconstruction (6" HMA & 24" Gravel) outside core.
9. Assumes granite curbing, closed drainage, and bituminuous sidewalks/pathways.
8. Assumes 4" pavement and 18" gravel on local roads.
9. All options include I-195 traffic calming (chicane) work.
10. Assumes granite curbing, closed drainage, and bituminuous sidewalks/pathways.

ROAD DESCRIPTION: Unsignalized - Option 3

Item	Item Description	Unit	Unit Price	Quantity	Cost
202.202	REMOVE PAVEMENT SURFACE	SY	$100.00	3800	$380,000.00
203.20	COMMON EXCAVATION	CY	$25.00	26700	$667,500.00
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	CY	$45.00	20900	$940,500.00
403.208	HOT MIX ASPHALT, 12.5 MM NOMINAL MAXIMUM SIZE	T	$200.00	10800	$2,160,000.00
403.209	HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS)	T	$350.00	440	$154,000.00
502.342	STR. CONCRETE ROADWAY, TRUCK APRON	CY	$800.00	0	$0.00
604.00	CATCH BASINS	EA	$5,000.00	36	$180,000.00
605.00	UNDERDRAIN	LF	$90.00	6500	$585,000.00
609.11	VERTICAL CURB TYPE 1	LF	$60.00	6800	$408,000.00
609.34	SLOPE CURB TYPE 5	LF	$75.00	4200	$315,000.00
609.341	SLOPE CURB TYPE 5 - TRUCK APRON	LF	$250.00	0	$0.00
621.00	LANDSCAPING	LS	$300,000.00	1	$300,000.00
634.00	LIGHTING	LS	$1,000,000.00	1	$1,000,000.00
643.00	TRAFFIC SIGNAL	LS	$350,000.00	2	$700,000.00
652.00	TRAFFIC CONTROL	LS	$300,000.00	1	$300,000.00
652.38	FLAGGERS	HR	$50.00	8000	$400,000.00
659.10	MOBILIZATION	LS	$1,000,000.00	1	$1,000,000.00

SUBTOTAL =	$9,490,000.00
25% CONTINGENCY =	$2,372,500.00
CONSTRUCTION TOTAL =	$11,862,500.00
SAY =	**$11,860,000.00**

ENGINEERING (10% CONST) =	$1,186,000.00
INSPECTION (10% CONST) =	$1,186,000.00
RIGHT OF WAY =	$1,200,000.00
PROJECT COST TOTAL =	$15,432,000.00
SAY =	**$15,440,000.00**

Job Number: 4015
MaineDOT WIN: 26660.00
Project Location: OOB & Saco, Ocean Park Road Study
Comments: Planning Level Cost Estimates

From: Gorrill Palmer
Date: 8/28/2024

Calculated By: M Cundiff
Checked By: D Ettinger
Reviewed By:

Notes:
1. Planning level cost estimates.
2. Costs calculated for major pay items only. Contingency provided for remaining items.
3. Costs based on planning graphics dated 5/21/2024.
4. Total costs include construction, engineering, right of way, and inspection costs.
5. Excludes utility, environmental, and geotechnical costs.
6. Assumes 1.5" mill and pavement overlay for roadway core (20' width).
7. Assumes full depth reconstruction (6" HMA & 24" Gravel) outside core.
9. Assumes granite curbing, closed drainage, and bituminuous sidewalks/pathways.
8. Assumes 4" pavement and 18" gravel on local roads.
9. All options include I-195 traffic calming (chicane) work.
10. Assumes granite curbing, closed drainage, and bituminuous sidewalks/pathways.

ROAD DESCRIPTION: Saco Ramp Improvements

Item	Item Description	Unit	Unit Price	Quantity	Cost
202.202	REMOVE PAVEMENT SURFACE	SY	$100.00	0	$0.00
203.20	COMMON EXCAVATION	CY	$25.00	1000	$25,000.00
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	CY	$45.00	750	$33,750.00
403.208	HOT MIX ASPHALT, 12.5 MM NOMINAL MAXIMUM SIZE	T	$200.00	400	$80,000.00
403.209	HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS)	T	$350.00	20	$7,000.00
502.342	STR. CONCRETE ROADWAY, TRUCK APRON	CY	$800.00	0	$0.00
604.00	CATCH BASINS	EA	$5,000.00	4	$20,000.00
605.00	UNDERDRAIN	LF	$90.00	400	$36,000.00
609.11	VERTICAL CURB TYPE 1	LF	$60.00	200	$12,000.00
609.34	SLOPE CURB TYPE 5	LF	$75.00	500	$37,500.00
609.341	SLOPE CURB TYPE 5 - TRUCK APRON	LF	$250.00	0	$0.00
621.00	LANDSCAPING	LS	$300,000.00	0	$0.00
634.00	LIGHTING	LS	$1,000,000.00	0	$0.00
643.00	TRAFFIC SIGNAL	LS	$350,000.00	0	$0.00
652.00	TRAFFIC CONTROL	LS	$50,000.00	1	$50,000.00
652.38	FLAGGERS	HR	$50.00	1500	$75,000.00
659.10	MOBILIZATION	LS	$50,000.00	1	$50,000.00

SUBTOTAL =	$426,250.00
25% CONTINGENCY =	$106,562.50
CONSTRUCTION TOTAL =	$532,812.50
SAY =	**$530,000.00**

ENGINEERING (10% CONST) =	$53,000.00
INSPECTION (10% CONST) =	$53,000.00
RIGHT OF WAY =	$0.00
PROJECT COST TOTAL =	$636,000.00
SAY =	**$640,000.00**

Job Number: 4015
MaineDOT WIN: 26660.00
Project Location: OOB & Saco, Ocean Park Road Study
Comments: Planning Level Cost Estimates

From: Gorrill Palmer
Date: 8/28/2024

Calculated By: M Cundiff
Checked By: D Ettinger
Reviewed By:

Notes:
1. Planning level cost estimates.
2. Costs calculated for major pay items only. Contingency provided for remaining items.
3. Costs based on planning graphics dated 5/21/2024.
4. Total costs include construction, engineering, right of way, and inspection costs.
5. Excludes utility, environmental, and geotechnical costs.
6. Assumes 1.5" mill and pavement overlay for roadway core (20' width).
7. Assumes full depth reconstruction (6" HMA & 24" Gravel) outside core.
9. Assumes granite curbing, closed drainage, and bituminuous sidewalks/pathways.
8. Assumes 4" pavement and 18" gravel on local roads.
9. All options include I-195 traffic calming (chicane) work.
10. Assumes granite curbing, closed drainage, and bituminuous sidewalks/pathways.

ROAD DESCRIPTION: Dewey Ave Improvements (option 3)

Item	Item Description	Unit	Unit Price	Quantity	Cost
202.202	REMOVE PAVEMENT SURFACE	SY	$100.00	0	$0.00
203.20	COMMON EXCAVATION	CY	$25.00	1100	$27,500.00
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	CY	$45.00	850	$38,250.00
403.208	HOT MIX ASPHALT, 12.5 MM NOMINAL MAXIMUM SIZE	T	$200.00	400	$80,000.00
403.209	HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SIDEWALKS, DRIVES, ISLANDS & INCIDENTALS)	T	$350.00	0	$0.00
502.342	STR. CONCRETE ROADWAY, TRUCK APRON	CY	$800.00	0	$0.00
604.00	CATCH BASINS	EA	$5,000.00	6	$30,000.00
605.00	UNDERDRAIN	LF	$90.00	200	$18,000.00
609.11	VERTICAL CURB TYPE 1	LF	$60.00	0	$0.00
609.34	SLOPE CURB TYPE 5	LF	$75.00	0	$0.00
609.341	SLOPE CURB TYPE 5 - TRUCK APRON	LF	$250.00	0	$0.00
621.00	LANDSCAPING	LS	$20,000.00	1	$20,000.00
634.00	LIGHTING	LS	$1,000,000.00	0	$0.00
643.00	TRAFFIC SIGNAL	LS	$350,000.00	0	$0.00
652.00	TRAFFIC CONTROL	LS	$50,000.00	0	$0.00
652.38	FLAGGERS	HR	$50.00	600	$30,000.00
659.10	MOBILIZATION	LS	$30,000.00	1	$30,000.00

SUBTOTAL =	$273,750.00
25% CONTINGENCY =	$68,437.50
CONSTRUCTION TOTAL =	$342,187.50
SAY =	**$340,000.00**

ENGINEERING (10% CONST) =	$34,000.00
INSPECTION (10% CONST) =	$34,000.00
RIGHT OF WAY =	$200,000.00
PROJECT COST TOTAL =	$608,000.00
SAY =	**$610,000.00**

Appendix C

Traffic Analysis

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

MEMORANDUM
EXISTING CONDITIONS
OCEAN PARK ROAD STUDY
OLD ORCHARD BEACH-SACO, ME
December 15, 2022

INTRODUCTION

Prior to this project, Gorrill Palmer (GP) completed a study for the Town of Old Orchard Beach (OOB) for the Ocean Park Road / Temple Ave intersection, referred to locally as the "Halfway Intersection". As that intersection was studied, it became apparent that the adjacent roadway section of Ocean Park Road to I-195 was an equally complex section of road from a safety and operations perspective, and is a contributing factor to the whole corridor, inclusive of the "Halfway Intersection". The subject of this current study is significant in that it provides the main access to and from the Old Orchard Beach community from I-95.

Ocean Park Road between the Interstate Spur and the Temple Ave intersection is approximately 2,000 feet long and is in both communities of OOB and Saco. It is a multilane undivided roadway section with narrow shoulders, curbing and sections with existing sidewalks. There is a primary unsignalized intersection at Smithwheel Road, several lesser unsignalized intersections, and many commercial and residential properties along the corridor including Old Orchard Beach Campground and Dunkin Donuts. This section of roadway also experiences significant seasonal variations in traffic volumes as it provides access to multiple campgrounds and lodging establishments, as well as direct access to the beach and pier areas. The Annual Average Daily Traffic is approximately 16,000 to 20,000 vehicles on average per day (higher in summer, less in winter) with a speed limit of 30 mph.

In addition to the Ocean Park Road section of roadway within OOB, a short section of Route 1 in Saco from the I-195 overpass to the Hannaford Driveway was also identified as being included. This section includes the I-195 eastbound off-ramp. Although this section is somewhat separate from the OOB section, there could be potential impacts to the OOB study area if changes are made in Saco.

During the public process, town officials, council members, and the public provided specific comments regarding consideration of the following:

- Safety and operational improvements with the Smithwheel Road intersection
- Signalizing the Smithwheel Road intersection
- Relocating the campground entrance to align with Smithwheel Road intersection and install signal
- Provide traffic calming to reduce speeds along Ocean Park Road
- Better pedestrian accommodations along the corridor
- Investigate I-195 transition to Ocean Park Road. Can a better layout be developed that will reduce driver confusion, provide for better control of vehicle speeds and improve the lane weaving that occurs?

The following sections are intended to summarize available data, evaluate existing conditions, and discuss how analysis will proceed from this point.

EXISTING TRAFFIC VOLUMES

The initial traffic volumes used for this evaluation were provided to GP by MaineDOT and the Town of Old Orchard Beach. The majority of the count data used in this evaluation was collected by MaineDOT on Wednesday, August 3, 2022, in the form of complete 12-hour turning movement counts. This is true for the following intersections:

- Main Street (US 1) / Ocean Park Road (SR 5) / I-195 Ramp – Saco (signalized)
- Dunkin Donuts exit / Ocean Park Road (SR 5) (unsignalized)
- Reserve Ave / Old Orchard Beach Campground / Ocean Park Road (SR 5) (unsignalized)
- Smithwheel Road / Ocean Park Road (SR 5) (unsignalized)
- Jeannette Ave / Ocean Park Road (SR 5) (unsignalized)
- I-195 / Ocean Park Road (SR 5) turn around area – Saco/OOB Town Line (unsignalized)

The traffic volume data for these six intersections was provided to GP by MaineDOT.

The traffic volumes at the Main Street (US 1) / Hannaford / VIP Auto intersection in Saco adjacent the Main Street / Ocean Park Road intersection noted above included complete 12-hour turning movement count data. However, the count was completed almost 10 years ago on Friday, August 23, 2013. The data from 2013 does appear to balance well with the data at the adjacent intersection recorded in August of 2022. The data from 2013 balances with the 2022 data better when annually adjusted with the 0.5% adjustment factor discussed in the Adjustments section of this memo.

The raw count data that will be used as the basis for analysis of the corridor is presented on the Vehicular Raw Volumes Figure which is included in Attachment A – the Figure Set – as Figure 1.

Pedestrian and Bicycle Volumes

As a part of the evaluation of existing volumes within the study area, GP reviewed existing pedestrian and bicycle volumes at the intersections noted above. As a part of the full 12-hour turning movement counts completed by MaineDOT in August of 2022, the number of pedestrians and bicycles crossing a segment of road was also recorded. It should be noted that the data from 2013 also included this information but given the way the data is stored and categorized on the MaineDOT site, it was not possible to isolate the pedestrian and bicycle volumes like it is when using the 2022 data.

Sidewalks exist along both sides of Ocean Park Road within the study area. The sidewalk on the eastbound side of Ocean Park Road begins in between the I-195 off ramp and the Old Orchard Beach Campground entrance and continues for the length of the corridor all the way to the "Halfway intersections" with Temple Ave. The sidewalk on the westbound side of Ocean Park Road begins on the east side of the Dunkin Donuts exit – where there is a crosswalk connection to the other side of the road – and continues all the way to the "Halfway intersection" as well. It should also be noted that crosswalks exist crossing Ocean Park Road (SR 5) at both the Dunkin Donuts exit and the Smithwheel Road intersections, as well as at two uncounted intersections – Melvin Ave and Dewey Ave – both closer to the "Halfway intersection".

Overall along the corridor segment in Old Orchard Beach, there does not appear to be significant pedestrian and/or bicycle crossing Ocean Park Road (SR 5). At the I-195 off ramp, the Jeannette Ave intersection, and the Smithwheel Road intersection, there were 13 or less people crossing the street at

each location over the course of the 12-hour count from 6:00 AM to 6:00 PM. Of these three locations, Smithwheel Road was the highest with 13 crossings on the east side, while Jeannette experienced 0 on either side, and I-195 experienced 4 total. Ocean Park Road in the area of the Dunkin Donuts had notably more crossing traffic than other locations – likely due to the presence of the Dunkin Donuts and proximity to the Old Orchard Beach Campground. The east side of the Dunkin exit experienced the most pedestrian crossing traffic along the corridor with 43 crossings over the course of the 12-hour count, while the east side of the Reserve Ave / OOB Campground intersection experienced 42 pedestrian crossings in the same time frame. It should be noted that these two locations are so close together that they are effectively part of the same intersection, and it is unclear if pedestrians were picked up by both counters in this area.

At the signalized Ocean Park Road / Main Street / I-195 off ramp intersection in Saco – which was also counted in 2022 – there are sidewalks along each side of Main Street (US 1) as well as the eastbound side of Ocean Park Road. There are crosswalks across both Ocean Park Road and the I-195 off ramp, but not across Main Street. It should be noted that the crosswalk and sidewalk along the southbound side of Main Street are part of the Eastern Trail – a significant multiuse recreation trail network in southern Maine. At the adjacent Hannaford intersection, sidewalks also exist along both sides of Main Street with crosswalks across both the Hannaford and VIP entrances. There is also a crosswalk across Main Street (US 1) at this signalized location.

As expected being part of the Eastern Trail, the crossing across the I-195 ramp was the heaviest use with 155 crossings over the course of the 12-hour count. The crosswalk on the opposite side of Main Street across Ocean Park Road experienced 18 crossings over the same 12 hours. The adjacent Hannaford intersection experienced a moderate amount of pedestrian crossing traffic with 54 crossing the Hannaford entrance over the course of the 12 hour count and 65 crossing Main Street in the same 12 hour period. It should be reiterated that this data was recorded in 2013 and the crossing data can not be isolated from the traffic data like it can for the 2022 counts. While the geometrics and sidewalk/crosswalk configuration at the Hannaford intersection was the same as it is today, the portion of the study area along Ocean Park Road in Old Orchard Beach has changed considerably over that same time.

Figures showing the available pedestrian accommodations within the study area are included as Figures 4 and 5 in Attachment A – the Figure Set.

Truck Percentages

As part of the evaluation of existing conditions within the study area, GP reviewed truck percentages throughout the corridor. As a part of the 12-hour counts completed by MaineDOT in 2022, the buses, semis, and single unit trucks were counted in separate "bins" so they could by isolated from the rest of the data and analyzed individually. For the 12-hour count completed in 2013, the semis and single unit trucks were counted in separate "bins", but the buses were not.

For the purposes of this evaluation, GP has only included the vehicles classified as semi traffic in the calculated truck percentage and does not include the single unit trucks and bus traffic. Overall, the study area experiences a low percentage of truck traffic with most movements less than 1%. The highest percentage calculated is at the Old Orchard Beach campground exit left turn movement (1.8%). This appears reasonable as some of the larger campers and RVs are likely being recorded as semi traffic.

The calculated truck percentages by movement are shown on the truck percentage figure included as Figure 2 in Attachment A – the Figure Set. For capacity and queue evaluations later in the study, GP will use 2% truck traffic for the major movements and the recorded truck % for all other movements.

VEHICULAR VOLUME ADJUSTMENTS

For the purposes of this evaluation, GP investigated two potential adjustments – a seasonal adjustment and an annual adjustment. The seasonal adjustment is typically applied due to the variability in traffic volumes throughout the year – like peak summer traffic in and around Old Orchard Beach, for example – while the annual adjustment is applied to account for background regional growth in the area.

Seasonal Adjustment

When counts are not completed during peak summer times, they are adjusted seasonally using MaineDOT weekly group mean factors. Because the 2022 counts were completed the first week of August, which is typically regarded to be when peak summer traffic conditions are occurring, it is our opinion that no seasonal adjustment factor is needed. This should be confirmed with MaineDOT.

Annual Adjustment

Since the initial volumes presented represent different years (2013, and 2022), and the design year for the project is 2045, the initial volumes needed to be adjusted by an annual growth to represent future traffic volumes. This growth adjustment represents background growth of the surrounding regional area. Based on the previous study completed by GP for the "Halfway intersection", a 0.5% per year growth rate appears to be appropriate for this area. Therefore, GP will use a 0.5% per year annual adjustment for analysis, meaning the data counted in 2013 will be adjusted by $1.005^{32} = 1.173$ and the data counted in 2022 will be adjusted by $1.005^{23} = 1.122$. This methodology approach should be confirmed with MaineDOT.

SAFETY REVIEW

High Crash Locations:

To complete the safety review, information presented on the Maine Public Crash Query Tool and the MaineDOT Public Map Viewer as well as crash history from MaineDOT was reviewed for the three-year period of 2019-2021. To evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met to be classified as an HCL. The criteria are as follows:

1. A critical rate factor (CRF) of 1.00 or more for a three-year period. A CRF compares the actual crash rate to the rate for similar intersections in the state, A CRF of less than 1.00 indicates a rate of less than average **and:**
2. A minimum of eight crashes over the same three-year period.

For the purposes of this safety evaluation, the study area was considered to be:

Saco: Main Street (US 1) from the northernmost approaches of the I-195 ramp intersections to the southern approach of the Main Street / Hannaford intersection.

Old Orchard Beach: Ocean Park Road (SR 5) from the eastern approaches of the Halfway intersection to the western approaches of the I-195 off ramp / Ocean Park Road intersection

Based on a review of the crash history information, there are three HCLs within the study area.

Saco:

- Node 56667 (Saco): Signalized intersection of I-195 eastbound off ramp / Main Street (US 1) / Ocean Park Road (SR 5) (CRF 1.52, 52 crashes) – this is a major 4-way signalized intersection in close proximity to the adjacent signalized intersection of Main Street / Hannaford / VIP Auto. The I-195 approach to the intersection is an approach only with no receiving lanes. The Main Street (US 1) southbound approach is 3 lanes: a left turn lane and 2 thru lanes, and the speed limit is 35 mph. The Main Street (US 1) northbound approach is also 3 lanes: two thru lanes and right turn lane, with a speed limit of 35 mph. The I-195 off ramp approach is 2 lanes: a thru lane and a channelized right turn lane, and the ramp suggested speed is posted at 35mph. It should be noted that the channelized right turn lane is yield controlled and no left turns onto Main Street are permitted from the I-195 approach, although some have been observed. The Ocean Park Road (SR 5) approach is 2 lanes: one left turn lane and one right turn lane with a speed limit of 30 mph.

  There appear to be four crash patterns (typically considered as three similar crashes) at this location, they are identified as follows:

  - I-195 eastbound off ramp right turn rear end (11 crashes)
  - Angle crash between traffic turning left from Ocean Park Road onto Main Street and thru traffic from I-195 continuing onto Ocean Park Road (15 crashes)
  - Main Street southbound rear end (5 crashes)
  - Ocean Park Road rear end (6 crashes)

- Node 57538 (Saco): Unsignalized intersection of Main Street (US 1) and the I-195 eastbound off ramp for exit 2B to travel north on Main Street (CRF 4.36, 19 crashes) – this is a significant merge intersection between traffic exiting I-195 and northbound traffic on Main Street (US 1). Traffic exiting I-195 is single lane and experiences a yield control merge into a merge lane shared with northbound traffic on Main Street attempting to get onto I-195 westbound toward I-95. The shared merge lane is approximately 200 feet long and is heavily used in both directions. The suggested ramp speed is posted at 25 mph. Main Street (US 1) traffic in this area is free flowing with 2 lanes of traffic.

  There is one clear crash pattern at this location:

  - I-195 eastbound off ramp rear end (18 crashes)

- Node 66308 (OOB): This is the "Halfway intersection" in Old Orchard Beach previously discussed that is formed by the intersections of Ocean Park Road / Temple Ave / Saco Ave / Old Orchard Road. This intersection was the subject of an in-depth study recently completed by GP and therefore not analyzed here.

The HCLs are shown graphically on the "High Crash Locations" figure included as Figure 3 in Attachment A – the figure set. It should be noted that while these are the only high crash locations identified within the study area, there are 8 additional locations (2 nodes and 6 segments) that meet one of the two HCL criteria. These locations are also shown on the "High Crash Locations" figure in yellow. The complete crash report summary and the HCL diagrams are included in Attachment B.

Pedestrian and Bicycle Crashes:

As part of the safety review, GP reviewed the crash report summary provided by MaineDOT for crashes involving bicycle and pedestrians for the 3-year period of 2019-2021. As indicated by the summary, there is one crash in the study area involving a bicycle and no crashes involving pedestrians. The single bicycle crash occurred in Saco at Node 57538 – one of the HCLs identified above. The crash occurred on September 4, 2019 at 9:01 AM.

Smithwheel Road Intersection:

Because the Smithwheel Road intersection was identified by the Town as being of particular safety concern, although not currently a HCL, it was evaluated in detail. Based on the summary report produced by MaineDOT, for the 3-year period from 2019 to 2021, the Smithwheel Road intersection experienced 5 crashes with a calculated CRF of less than 1, therefore, it does meet either of the two criteria.

To evaluate further, GP consulted the Maine Public Crash Query Tool to examine historical data for this intersection. It was identified that this intersection was classified as an HCL for every three-year period from 2017 (2015-2017 data) to 2020 (2017-2020 data) with at least 10 crashes in each period. The 2019-2021 period appears to be the first three-year period in some time that this intersection is not classified as an HCL.

Figure 1: Aerial Image before Dunkin Donuts taken in May 2016

Based on the Google Earth historical image data, it appears that the Dunkin Donuts adjacent to this intersection was added in early 2018. Concurrent with the creation of the Dunkin Donuts, the road was re-striped and a left turn lane onto Smithwheel was added.

As can be seen in the images, the restriping and geometric changes provide additional protection for vehicles turning left onto Smithwheel and eliminates the confusion caused by the adjacent lane weave. Based on the historical data analyzed, it would appear the restriping of the road and geometric modifications have made a positive impact on the safety of the intersection and surrounding roadway network.

Figure 2: Aerial Image after Dunkin Donuts taken in October 2021

CONCLUSIONS

Based on the above review/evaluation we have identified the following traffic items that should be considered moving forward.

1. The existing traffic volumes to be used as the basis of design for the study were provided to GP by MaineDOT in the form of 12-hour turning movement counts and were recorded on Wednesday, August 3, 2022 for the majority of the intersections within the study area. The Hannaford / Main Street / VIP Auto intersection volumes were counted on Friday, August 23, 2013.

2. Pedestrian and bicycle volumes recorded as part of the 12-hour turning movement counts were reviewed within the study area were generally low, with the highest volumes near the Dunkin Donuts in OOB.

3. The truck percentages within the study area recorded as a part of the 12-hour counts were reviewed and were low, generally less than 1% for all movements. To be conservative, GP will use 2% for the major movements during the design phase of the study.

4. Given that the counts were completed in early August, which is generally regarded to be representative of peak summer traffic, GP is proposing that no seasonal adjustment factor be applied to the data.

5. To be consistent with the prior completed study for the "Halfway intersection", GP is proposing a 0.5% per year annual growth factor be used in conjunction with a design year of 2045.

6. There are three high crash locations within the study area – one in Old Orchard Beach and two in Saco.

7. Pedestrian and Bicycle crashes were low, with one bicycle crash and no pedestrian crashes occurring within the study area for the 3-year period from 2019 to 2021.

8. The Smithwheel Road / Ocean Park Road intersection is not currently classified as a high crash location, although it was for the previous four 3-year periods. It appears the restriping and geometric modifications made when the Dunkin Donuts was constructed have had a positive impact on the safety of the area.

ATTACHMENTS

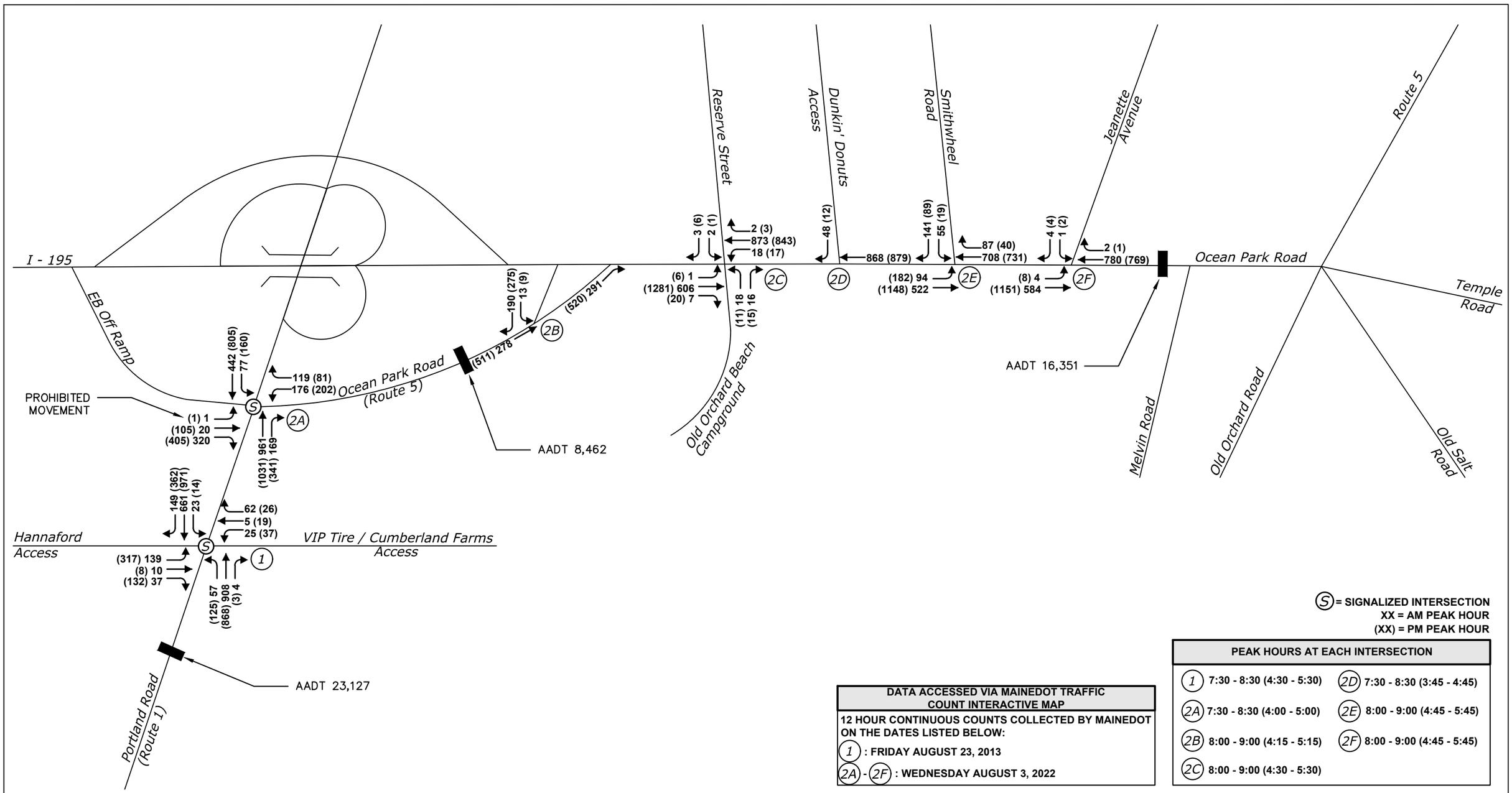
A – Figure Set
B – Safety Data

y:\4015_i-195 & ocean park road study\n traffic\xc memo\draft xc memo 12-15-22.doc

Attachment A

Figure Set

Ocean Park Road Study - Vehicular Raw Volumes



S = SIGNALIZED INTERSECTION
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

DATA ACCESSED VIA MAINEDOT TRAFFIC COUNT INTERACTIVE MAP

12 HOUR CONTINUOUS COUNTS COLLECTED BY MAINEDOT ON THE DATES LISTED BELOW:

(1) : FRIDAY AUGUST 23, 2013

(2A) - (2F) : WEDNESDAY AUGUST 3, 2022

PEAK HOURS AT EACH INTERSECTION

(1)	7:30 - 8:30 (4:30 - 5:30)	(2D)	7:30 - 8:30 (3:45 - 4:45)
(2A)	7:30 - 8:30 (4:00 - 5:00)	(2E)	8:00 - 9:00 (4:45 - 5:45)
(2B)	8:00 - 9:00 (4:15 - 5:15)	(2F)	8:00 - 9:00 (4:45 - 5:45)
(2C)	8:00 - 9:00 (4:30 - 5:30)		

Rev.	Date	Revision

Issued For	Date	By

Design: BP	Draft: BP	Date: NOV 2022
Checked: RED	Scale: NTS	Job No.: 4015
File Name: Figure Set.dwg		

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

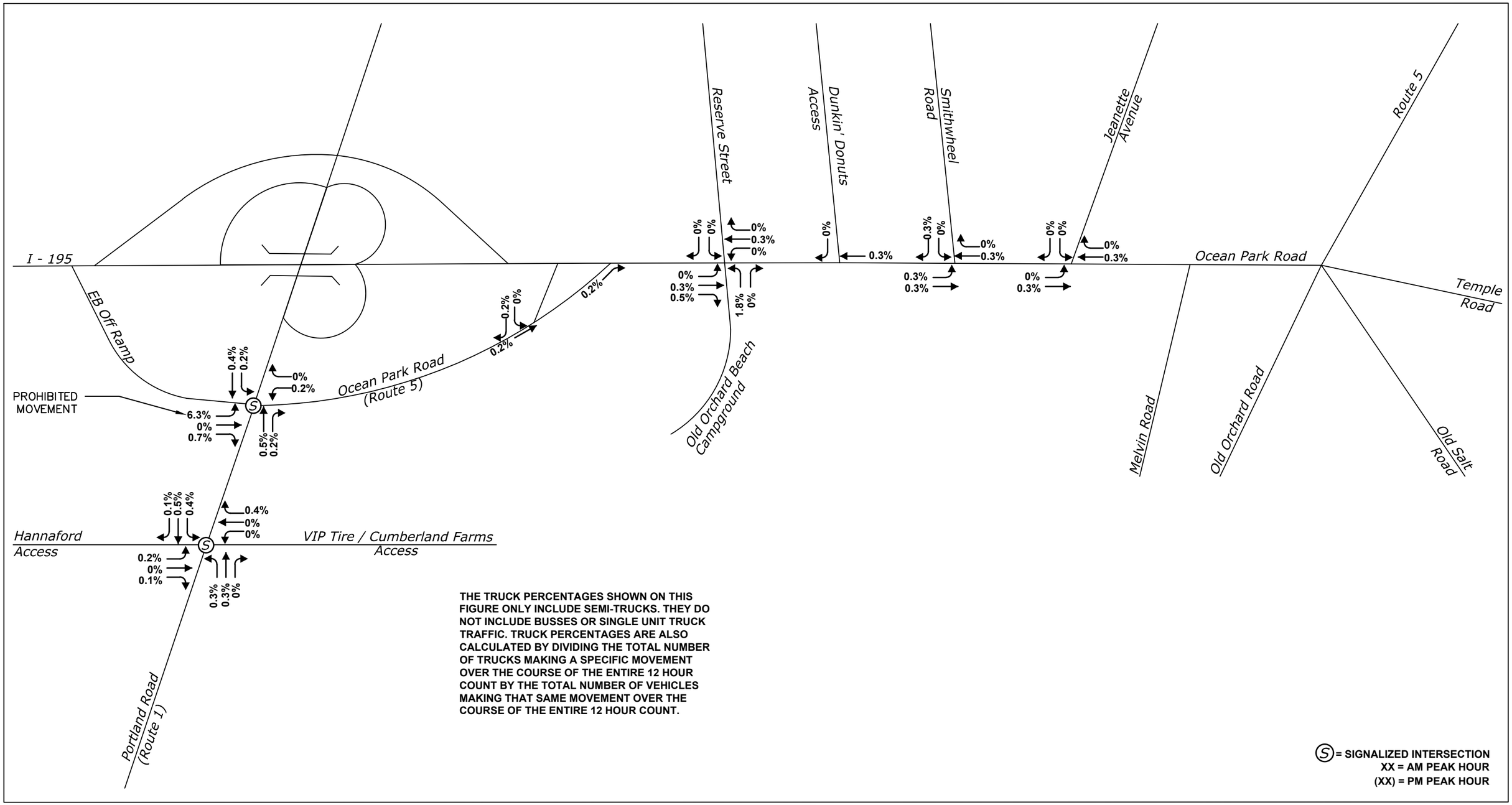
Drawing Name: RAW VEHICULAR VOLUMES

Project: Corridor Study
Old Orchard Beach, Maine

Client: Town of Old Orchard Beach
1 Portland Avenue, Old Orchard Beach, Maine 04064

Drawing No. 01

Ocean Park Road Study - Truck Percentages by Movement



THE TRUCK PERCENTAGES SHOWN ON THIS FIGURE ONLY INCLUDE SEMI-TRUCKS. THEY DO NOT INCLUDE BUSSES OR SINGLE UNIT TRUCK TRAFFIC. TRUCK PERCENTAGES ARE ALSO CALCULATED BY DIVIDING THE TOTAL NUMBER OF TRUCKS MAKING A SPECIFIC MOVEMENT OVER THE COURSE OF THE ENTIRE 12 HOUR COUNT BY THE TOTAL NUMBER OF VEHICLES MAKING THAT SAME MOVEMENT OVER THE COURSE OF THE ENTIRE 12 HOUR COUNT.

Ⓢ = SIGNALIZED INTERSECTION
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

Rev.	Date	Revision

Issued For	Date	By

Design: BP	Draft: BP	Date: NOV 2022
Checked: RED	Scale: NTS	Job No.: 4015
File Name: Figure Set.dwg		

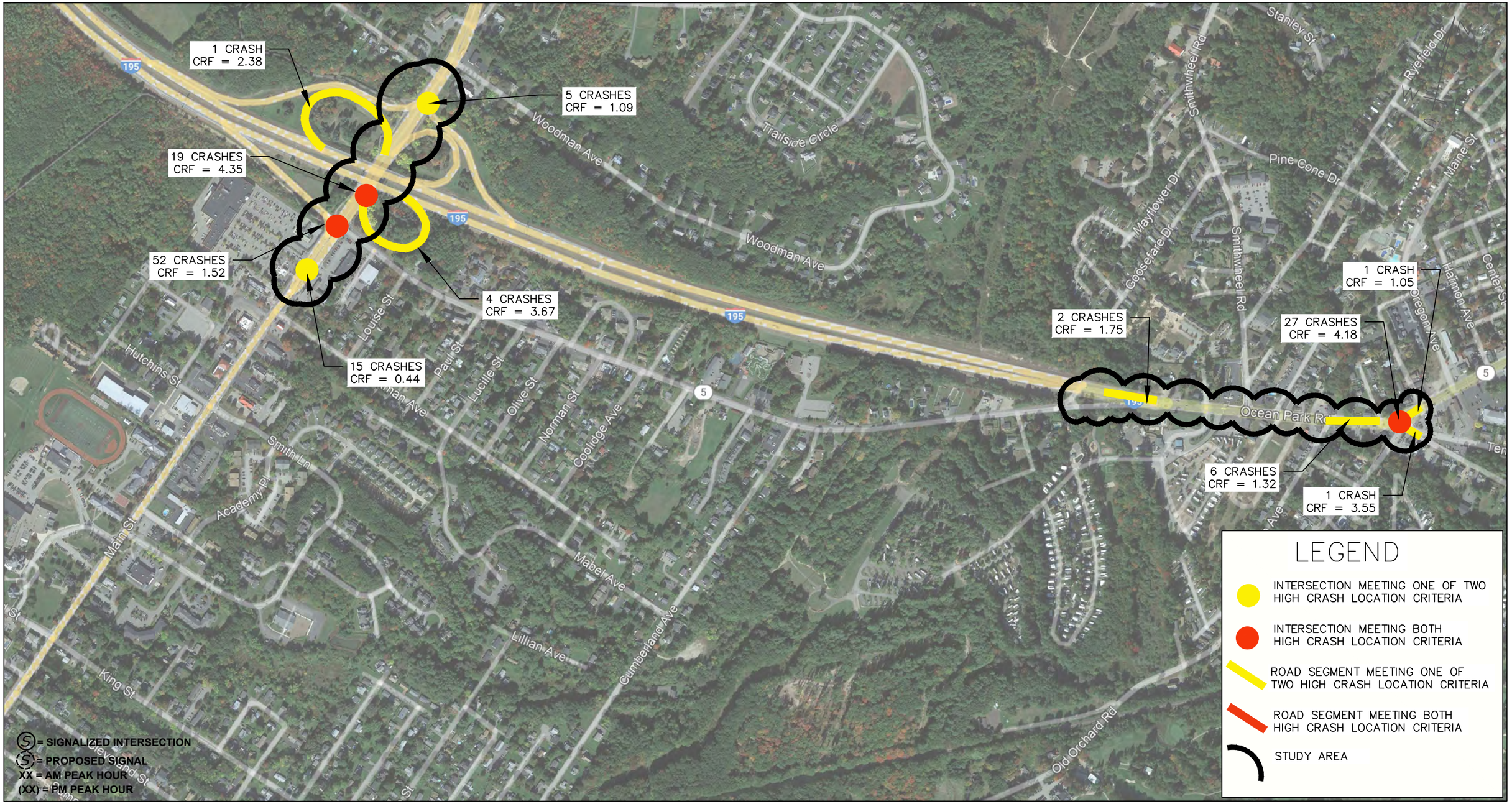
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Drawing Name:	TRUCK PERCENTAGES
Project:	Corridor Study Old Orchard Beach, Maine
Client:	Town of Old Orchard Beach 1 Portland Avenue, Old Orchard Beach, Maine 04064

Drawing No. 02

Ocean Park Road Study - High Crash Location Map (2019 - 2021)



Rev.	Date	Revision

Issued For	Date	By

Design: NJB	Draft: BP	Date: NOV 2022
Checked: RED	Scale: NTS	Job No.: 4015
File Name: Figure Set.dwg		

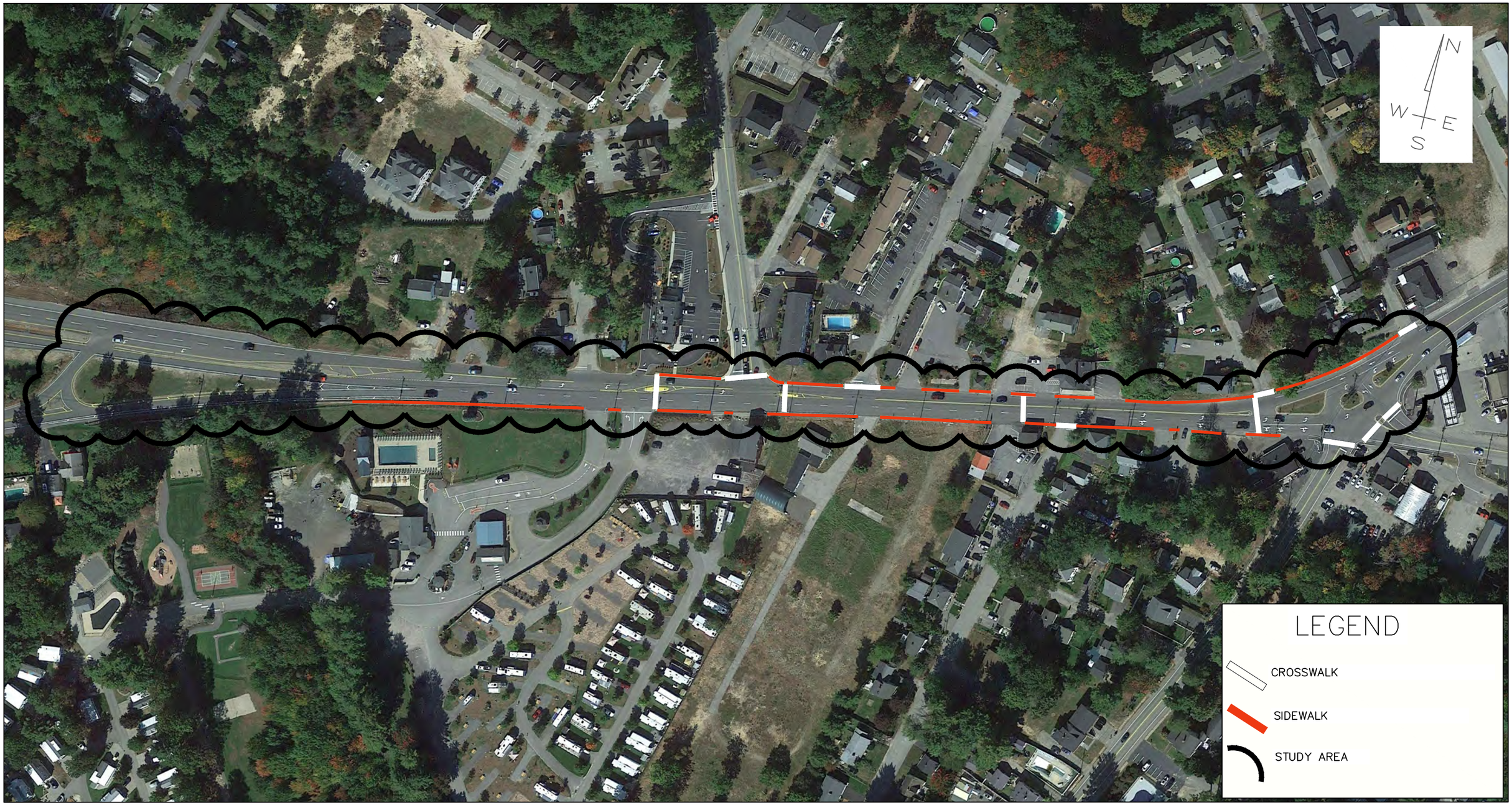
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Drawing Name:	HIGH CRASH LOCATION MAP
Project:	Corridor Study Old Orchard Beach, Maine
Client:	Town of Old Orchard Beach 1 Portland Avenue, Old Orchard Beach, Maine 04064

Drawing No.
03

Ocean Park Road Study - Old Orchard Beach Pedestrian Accomodations



Rev.	Date	Revision

Issued For	Date	By

Design: NJB	Draft: BP	Date: NOV 2022
Checked: RED	Scale: NTS	Job No.: 4015
File Name: Figure Set.dwg		

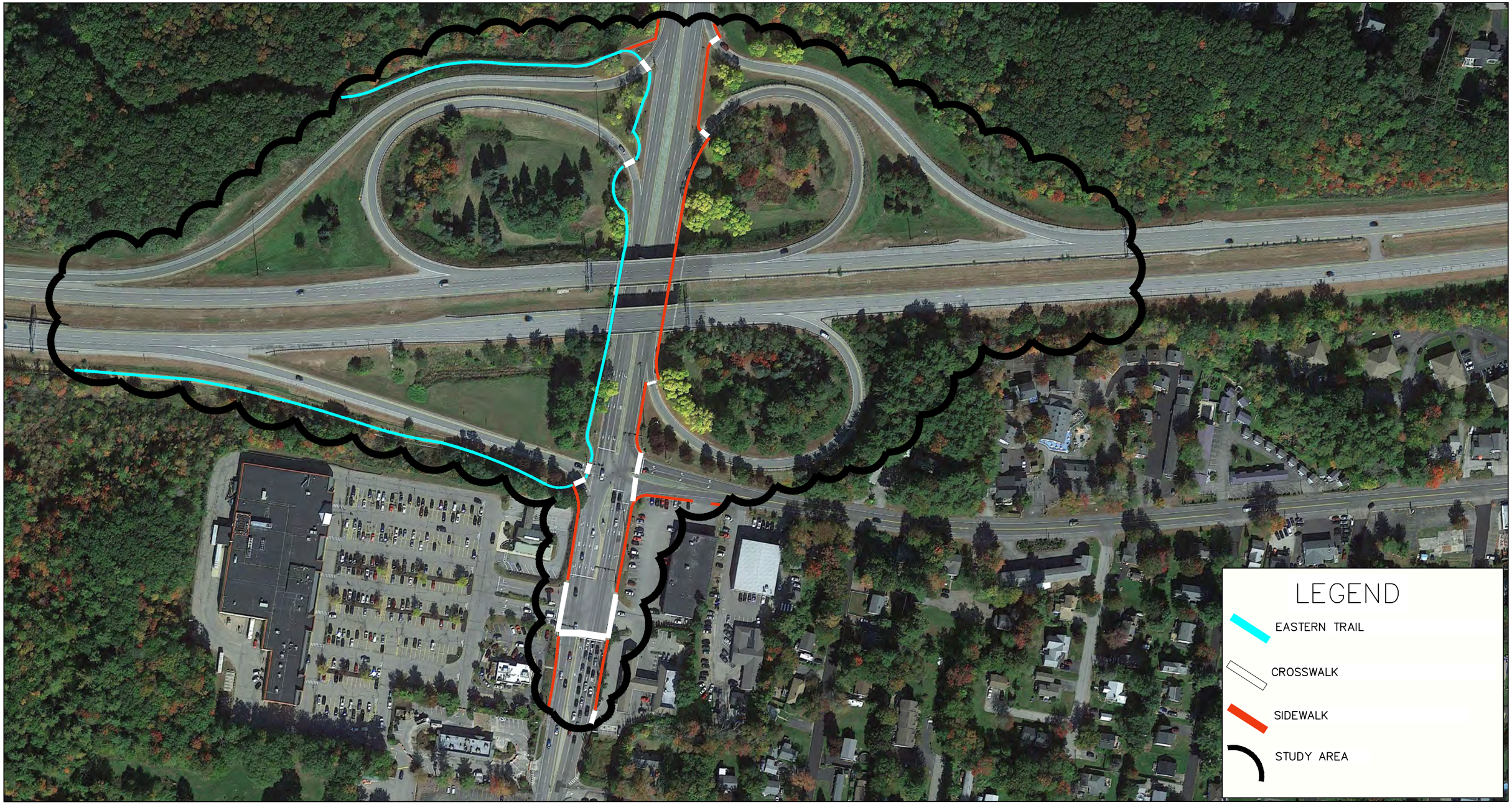
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Drawing Name:	OLD ORCHARD BEACH PEDESTRIAN ACCOMODATIONS
Project:	Corridor Study Old Orchard Beach, Maine
Client:	Town of Old Orchard Beach 1 Portland Avenue, Old Orchard Beach, Maine 04064

Drawing No.
04

Ocean Park Road Study - Saco Pedestrian Accomodations



Rev.	Date	Revision

Issued For	Date	By

Design: NJB	Draft: BP	Date: NOV 2022
Checked: RED	Scale: NTS	Job No.: 4015
File Name: Figure Set.dwg		

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Drawing Name:	SACO PEDESTRIAN ACCOMODATIONS
Project:	Corridor Study Old Orchard Beach, Maine
Client:	Town of Old Orchard Beach 1 Portland Avenue, Old Orchard Beach, Maine 04064

Drawing No.
05

GORRILL PALMER

300 Southborough Drive, Suite 200
South Portland, Maine 04106
207.772.2515

MEMORANDUM
2023 EXISTING AND 2045 NO BUILD CONDITIONS
OCEAN PARK ROAD STUDY
OLD ORCHARD BEACH-SACO, ME
March 10, 2023

INTRODUCTION

This memorandum is the next step for this project following the previous "Existing Conditions – Ocean Park Road Study" dated December 15, 2022 issued by Gorrill Palmer. The previous memorandum discussed the following:

- Existing vehicular, pedestrian and bicycle volumes in addition to truck percentages
- Seasonal and annual growth factors for traffic volume adjustments – Follow up figures submitted to OOB, Saco, and MaineDOT for review and comment via email February 3, 2023
- Safety Review

This memorandum will provide a summary of the following:

- No Build Conditions: Capacity and Queue Analysis for the following:
  Existing 2023 and Future 2045 No Build Conditions -
  - Ocean Park Eastbound Merge
  - Ocean Park Road/I-195 intersection
  - Reserve Street/OOB Campground/Ocean Park Road
  - Smithwheel Road/Ocean Park Road
  - Jeanette Avenue/Ocean Park Road

- Weaving Evaluation: Ocean Park Road

TRAFFIC VOLUMES

The traffic volumes used for the 2045 no-build conditions were calculated previously and submitted to the Town and MaineDOT for review and approval. The adjustment factors and traffic volumes were approved by MaineDOT as identified in an email from Marty Rooney to Gorrill Palmer dated February 24, 2023. GP used that same methodology to calculate the 2023 no-build. Both the 2023 and 2045 no-build volumes are provided in Attachment A as Figures 2 & 3 respectively.

COMPUTER MODELING RESULTS

Capacity Analysis:

The following summarizes the results of the capacity analysis for the study area intersections for the following conditions:

- 2023 No Build Conditions – AM & PM Peak Hours
- 2045 No Build Conditions – AM & PM Peak Hours

The "No Build Conditions" assumes that existing geometry is unchanged and no mitigation or alternatives are in place.

The level of service criteria for unsignalized and signalized intersections is presented in the following Tables 1 & 2 respectively.

Table 1 - Level of Service Criteria for Unsignalized Intersections

Level of Service	*Control Delay per Vehicle (s)*
A	*Less than 10.0*
B	*10.1 to 15.0*
C	*15.1 to 25.0*
D	*25.1 to 35.0*
E	*35.1 to 50.0*
F	*Greater than 50.0*

Table 2 - Level of Service Criteria for Signalized Intersections

Level of Service	*Control Delay per Vehicle (s)*
A	*Less than 10.0*
B	*10.1 to 20.0*
C	*20.1 to 35.0*
D	*35.1 to 55.0*
E	*55.1 to 80.0*
F	*Greater than 80.0*

The computer modeling used the Synchro/SimTraffic computer analysis software (Version 11). Level of service (LOS) rankings are similar to the academic ranking system where an 'A' is good with little control delay and an 'F' represents poor traffic conditions. If the level of service falls below a 'D,' an evaluation should be made to determine if mitigation is warranted. The following Table 3 summarizes the results of the capacity analysis with hardcopies of the results provided in Attachment B:

Table 3 – 2023 & 2045 No Build Condition – Capacity Analysis

Intersection Movement	**No Build Condition LOS / Delay (sec.)**			
	AM		**PM**	
	2023	**2045**	**2023**	**2045**
Ocean Park Road EB Merge / Ocean Park Road	**Unsignalized**			
Ocean Park Road EB T	A / 1	A / 2	A / 8	A / 10
Ocean Park Road WB T	A / 1	A / 1	A / 1	A / 1
Ocean Park Road EB Merge	A / 1	A / 1	A / 6	B / 12
Overall	A / 1	A / 1	A / 5	A / 7

Intersection Movement	No Build Condition LOS / Delay (sec.)			
	AM		PM	
	2023	2045	2023	2045
Ocean Park Road / I-195 EB	**Unsignalized**			
I-195 EB T	A / 1	A / 1	A / 2	A / 6
Ocean Park Road WB L	A / 3	A / 4	A / 9	B / 17
Ocean Park Road WB T	A / 1	A / 1	A / 2	A / 2
Ocean Park Road WB T	A / 1	A / 1	A / 1	A / 1
Overall	A / 1	A / 1	A / 3	A / 6
Ocean Park Road / Jug Handle from Ocean Park Road WB	**Unsignalized**			
Ocean Park Road EB T	A / 1	A / 1	A / 1	A / 2
Jug Handle SB L	A / 2	A / 2	A / 4	A / 9
Jug Handle SB R	A / 1	A / 1	A / 2	A / 2
Overall	A / 1	A / 1	A / 1	A / 2
OOB Campground (enter) / Reserve Street / Ocean Park Road	**Unsignalized**			
Ocean Park Road EB L	A / 1	A / 1	A / 7	A / 8
Ocean Park Road EB T	A / 1	A / 1	A / 2	A / 3
Ocean Park Road EB TR	A / 1	A / 1	A / 1	A / 2
Ocean Park Road WB L	A / 3	A / 3	A / 9	A / 10
Ocean Park Road WB TR	A / 1	A / 1	A / 1	A / 1
Reserve Street SB LTR	B / 12	C / 22	B / 11	B / 12
Overall	A / 1	A / 1	A / 2	A / 2
OOB Campground (exit) / DD right out / Ocean Park Road	**Unsignalized**			
Ocean Park Road EB T	A / 1	A / 1	A / 1	A / 1
Ocean Park Road EB T	A / 1	A / 1	A / 1	A / 1
Ocean Park Road WB T	A / 1	A / 1	A / 1	A / 1
Campground NB L	C / 22	E / 36	F / 86	F / 99
Campground NB R	A / 4	A / 4	A /10	B / 14
Dunkin Donuts SB R	A / 10	B / 15	B / 13	B / 11
Overall	A / 2	A / 2	A / 2	A / 2
Ocean Park Road / Smithwheel Road	**Unsignalized**			
Ocean Park Road EB L	B / 12	B / 13	A / 10	B / 13
Ocean Park Road EB T	A / 1	A / 2	A / 2	A / 2
Ocean Park Road EB T	A / 1	A / 1	A / 1	A / 1
Ocean Park Road WB TR	A / 2	A / 2	A / 2	A / 2
Smithwheel Road SB L	E / 36	F / 58	E / 41	F / >100
Smithwheel Road SB R	B / 11	C / 16	B / 11	B / 13
Overall	A / 4	A / 6	A / 3	A / 4

Intersection Movement	No Build Condition LOS / Delay (sec.)			
	AM		PM	
	2023	2045	2023	2045
Ocean Park Road / Jeanette Avenue	**Unsignalized**			
Ocean Park Road EB LT	A / 1	A / 1	A / 1	A / 1
Ocean Park Road EB T	A / 1	A / 1	A / 1	A / 1
Ocean Park Road WB TR	A / 1	A / 1	A / 1	A / 1
Jeanette Avenue SB LR	B / 12	A / 9	A / 8	A / 7
Overall	A / 1	A / 1	A / 1	A / 1

XX = Level of Service "E" or below
NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, NEB = Northeast Bound
L = Left, T = Through, R = Right

As shown in Table 3, generally most movements operate at acceptable levels of service. The exceptions are the left turn movements from both the campground and Smithwheel Road, both experiencing low levels of service in the AM and PM peak hours of 2023 and 2045 (except for the campground in 2023 AM). Low levels of service for left turn movements from side streets onto a busy major collector is not uncommon; however, the delay for the left turn movement from Smithwheel Road onto Ocean Park Road in the 2045 PM peak hour is forecast to be greater than 100 seconds.

There is an anomaly in the results for the exiting traffic of Jeanette Avenue in that it shows the delay decreasing from 2023 to 2045. This is due to the very low volume of traffic (less than 6 peak hour vehicles) and that skew the results because it depends on when they enter the intersection. In reality the delay would be expected to remain the same or slightly decrease.

It should be noted that the results in Table 3 reflects comments received at a virtual meeting with the Town of OOB, City of Saco, and MaineDOT on March 1, 2023 to review and discuss the initial existing conditions results. Based on that discussion the "Yield" control for the Ocean Park Road eastbound merge with I-195 eastbound traffic was removed. The movement has a "Yield" sign in the field but also has its own receiving lane. The consensus of the group was that the "Yield" control was not acknowledged by drivers and to calibrate the model to mimic field conditions, it should be removed from the modeling.

Other than removal of the "Yield" control, the consensus of the group was that the 2023 modeling accurately reflected what they experience in the field during peak summertime conditions.

Queue Analysis:

Similar to capacity analysis, a 95th percentile queue analysis was completed using the same computer modeling. Based on that modeling, the following queues are forecast. Queues have been rounded up to the nearest five-foot interval and any queues over 100 feet have been highlighted in an effort to identify potential patterns.

Table 4 – 2023 & 2045 No Build 95th Percentile Queue Results

Intersection Movement	Storage (feet)	95th Percentile Queues (Feet)			
		AM		PM	
		2023	2045	2023	2045
Ocean Park Road EB Merge / Ocean Park Road	**Unsignalized**				
Ocean Park Road EB T		40	55	310	365
Ocean Park Road WB T					60
Ocean Park Road EB Merge		40	40	190	315
Ocean Park Road / I-195 EB	**Unsignalized**				
I-195 EB T				105	335
Ocean Park Road WB L	185	65	70	130	180
Ocean Park Road WB T				50	135
Ocean Park Road WB T				50	95
Ocean Park Road / Jug Handle from Ocean Park Road WB	**Unsignalized**				
Ocean Park Road EB T				10	50
Jug Handle SB L	25	20	20	25	25
Jug Handle SB R			10		15
OOB Campground (enter) / Reserve Street / Ocean Park	**Unsignalized**				
Ocean Park Road EB L	300	10	10	20	30
Ocean Park Road EB T			15	35	45
Ocean Park Road EB TR			15	30	35
Ocean Park Road WB L	50	30	30	40	40
Ocean Park Road WB TR		5	10	10	25
Reserve Street SB LTR		25	30	30	30
OOB Campground (exit) / DD right out / Ocean Park Road	**Unsignalized**				
Ocean Park Road EB T			15	20	35
Ocean Park Road EB T				5	15
Ocean Park Road WB T		10	15	25	20
Campground NB L		45	50	50	50
Campground NB R	100	35	40	40	40
Dunkin Donuts SB R		55	65	35	35
Ocean Park Road / Smithwheel Road	**Unsignalized**				
Ocean Park Road EB L	80	70	75	85	90
Ocean Park Road EB T		35	50	95	110
Ocean Park Road EB T		15	40	50	75
Ocean Park Road WB TR		30	40	25	40
Smithwheel Road SB L		75	110	40	75

Intersection Movement	Storage (feet)	95th Percentile Queues (Feet)			
		AM		PM	
		2023	2045	2023	2045
Smithwheel Road SB R	200	90	130	75	80
Ocean Park Road / Jeanette Avenue	**Unsignalized**				
Ocean Park Road EB LT		10	15	35	40
Ocean Park Road EB T				20	30
Ocean Park Road WB TR			5	5	25
Jeanette Avenue SB LR		15	10	15	15

XX = Queues that exceed 100 feet
NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, NEB = Northeast Bound
L = Left, T = Thru, R = Right

Based on the results summarized in Table 4, the following additional comments are offered:

A. The area in and around the Ocean Park Road jug handle and end of I-195 where it merges with Ocean Park Road has numerous movements with queues exceeding 100 feet during the 2023 & 2045 PM peak hour time periods. What should be noted is that many of the movements are free-flowing movements which should have zero to minimal queues. The fact that they are showing queuing could be a sign of significant congestion occurring in and around that area during peak hours of the day during peak summer conditions.

B. Ocean Park Road eastbound through movement exceeds 100 feet in the 2045 PM peak hour scenario. This is a free-flowing movement and should not experience any queues. Upon further investigation, the adjacent left turn lane is beginning to exceed the available storage lane during that same time period, which could result in the traffic beginning to impact the adjacent through lane.

C. Smithwheel Road shows queues that exceed 100 feet in the 2045 AM scenario. This would be expected since this is one of the exits for the adjacent Dunkin Donuts and the AM peak hour would be expected to experience the most significant impact. Fortunately, the available storage on Smithwheel Road appears to be adequate.

Special Note: It should be noted that the area for this study experiences significant fluctuation in traffic volumes throughout the year, with the peak traffic volumes occurring during the key summer months. The above capacity and queue results reflect the peak summer month conditions. The remainder of the year, capacity and queues are significantly improved. The purpose of this study is not capacity oriented, but *"to identify a range of implementable alternatives to improve safety while maintaining reasonable mobility and accessibility for all modes of transportation both now and into the future."*

WEAVING EVALUATION

The Ocean Park Road eastbound merge with I-195 eastbound traffic is the primary location within the study area that experiences the most weaving of traffic between lanes. The eastbound Ocean Park Road traffic is technically required to "Yield" to the I-195 traffic; however, since the Ocean Park Road traffic has its own receiving lane, the traffic frequently does not acknowledge the "Yield" control.

Within 500 feet of the beginning of this merge, some drivers from Ocean Park Road are trying to shift over to the left lane to visit Dunkin Donuts or use Smithwheel Road, while some traffic from I-195 is trying to shift to the right most lane to enter the campground on the southerly side of the road.

This weaving will be one of the key areas that will need to be considered and addressed when evaluating the potential alternatives.

CITY OF SACO INTERSECTION

The signalized intersection of Route 1 at the I-195 eastbound off-ramp / Ocean Park Road and general area is also included in this study, with the focus for that area more on improving safety rather than addressing the existing capacity and queuing issues that are already known to exist for that section of Route 1. Alternatives explored in the next steps of this study will provide alternatives for this area that should improve not only the safety of that area as its main goal, but will also have secondary benefits of improving the congestion of that area.

NEXT STEPS

The next step for this study is to present to the study team potential alternatives to address the deficiencies identified in both this evaluation as well as the previous evaluation. Once consensus is reached on the potential alternatives to pursue, concept plans will be generated and additional evaluations and analysis will be completed.

SUMMARY

The following summarizes the above evaluation.

1. The initial 2045 traffic volumes for this study have been reviewed and approved. The 2023 traffic volumes were generated using the same approved methodologies and provided herein with the previously approved 2045 traffic volumes.

2. Capacity analysis was completed for the 2023 & 2045 No Build conditions. Based on that analysis, the study area intersections primarily operate at acceptable levels of service with the exception of left turning movements from the campground and Smithwheel Road.

3. Queue analysis was completed for the 2023 & 2045 No Build conditions. Based on that analysis, there appears to be a congestion issue in and around the Ocean Park jug handle and eastbound merge areas. There are also some potential queue issues with the Ocean Park Road left turn movement onto Smithwheel Road.

4. Weaving of traffic has been identified as a potential operational and safety issue for the Ocean Park Road eastbound direction between the end of I-195 and Smithwheel Road.

5. The City of Saco study area that is included with this overall study has previously been identified as a safety issue. Future alternatives for this study will propose to address the identified deficiencies.

6. The next step for this study is to present potential alternatives for future consideration and to receive consensus on which alternatives should be pursued. Once the preferred alternatives are identified, additional evaluations and analysis will be completed and presented to the study team for comments and recommendations.

ATTACHMENTS

A – Figure Set
B – Computer Analysis Printouts

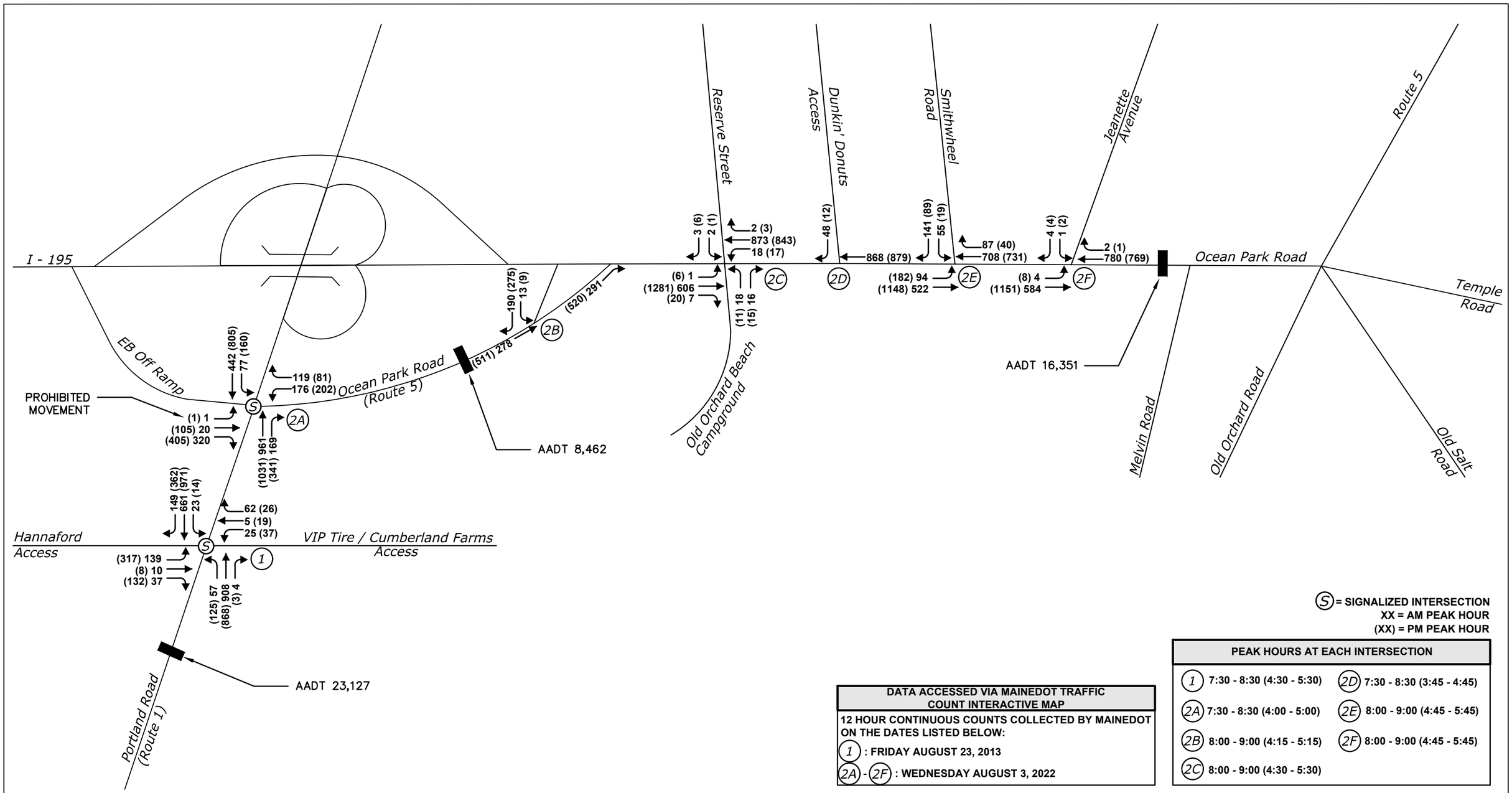
u:\4015_i-195 & ocean park road study\n traffic\no build conditions\no build conditions memo 03-10-23.doc

Attachment A

Figure Set

- Figure 1 – Vehicular Raw Volumes
- Figure 2 – No Build 2023 DHV
- Figure 3 – No Build 2045 DHV

Ocean Park Road Study - Vehicular Raw Volumes



S = SIGNALIZED INTERSECTION
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

DATA ACCESSED VIA MAINEDOT TRAFFIC COUNT INTERACTIVE MAP

12 HOUR CONTINUOUS COUNTS COLLECTED BY MAINEDOT ON THE DATES LISTED BELOW:

1 : FRIDAY AUGUST 23, 2013

2A - 2F : WEDNESDAY AUGUST 3, 2022

PEAK HOURS AT EACH INTERSECTION

1	7:30 - 8:30 (4:30 - 5:30)	2D	7:30 - 8:30 (3:45 - 4:45)
2A	7:30 - 8:30 (4:00 - 5:00)	2E	8:00 - 9:00 (4:45 - 5:45)
2B	8:00 - 9:00 (4:15 - 5:15)	2F	8:00 - 9:00 (4:45 - 5:45)
2C	8:00 - 9:00 (4:30 - 5:30)		

Rev.	Date	Revision

Issued For	Date	By

Design: NJB	Draft: NJB	Date: FEB 2023
Checked: RED	Scale: NTS	Job No.: 4015
File Name: Figure Set.dwg		

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

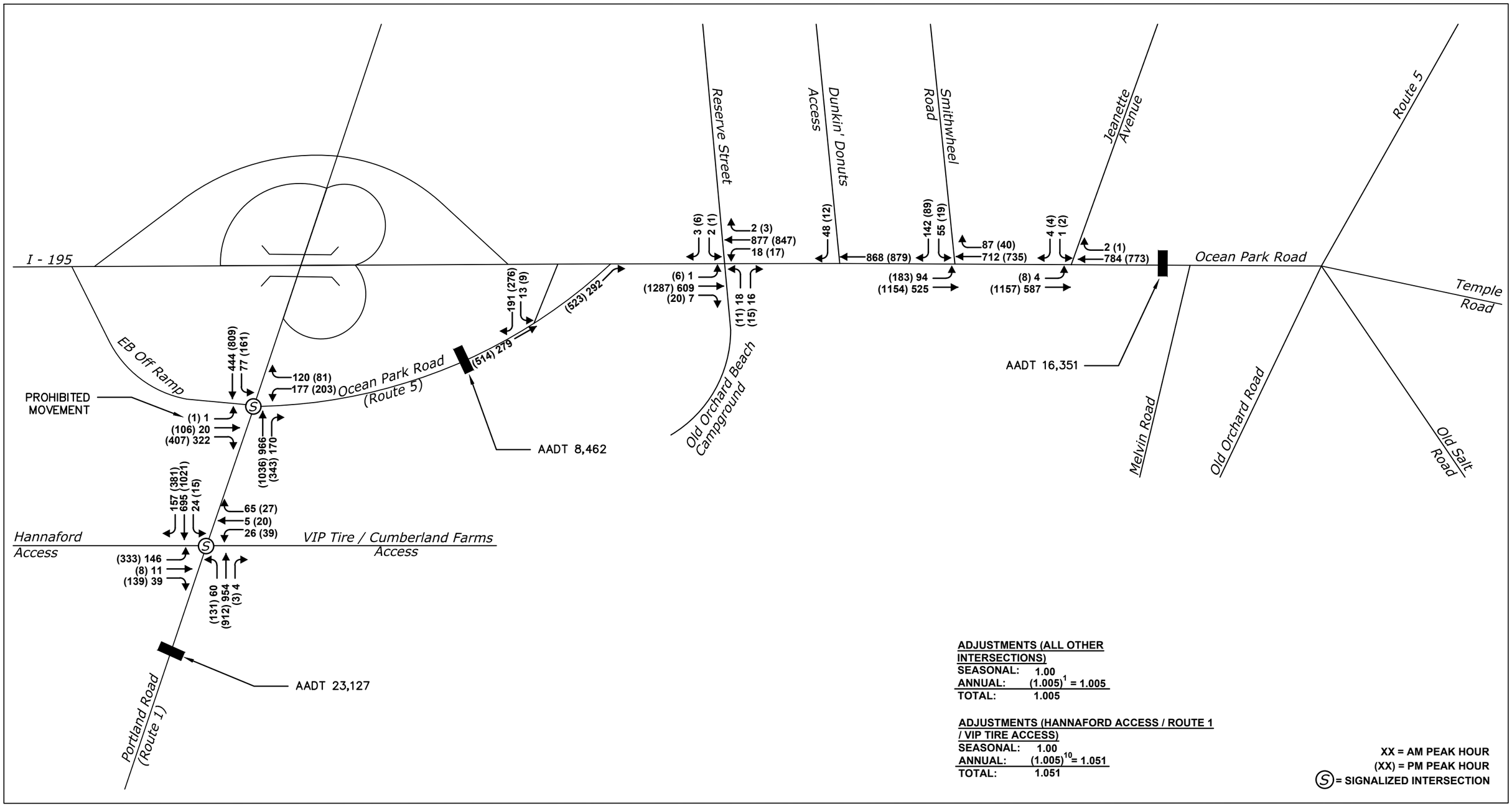
Drawing Name: 2023 ADJUSTED VOLUMES

Project: Corridor Study
Old Orchard Beach, Maine

Client: Town of Old Orchard Beach
1 Portland Avenue, Old Orchard Beach, Maine 04064

Drawing No. 01

Ocean Park Road Study - No Build 2023 Design Hourly Volumes



ADJUSTMENTS (ALL OTHER INTERSECTIONS)

SEASONAL:	1.00
ANNUAL:	$(1.005)^{1} = 1.005$
TOTAL:	1.005

ADJUSTMENTS (HANNAFORD ACCESS / ROUTE 1 / VIP TIRE ACCESS)

SEASONAL:	1.00
ANNUAL:	$(1.005)^{10} = 1.051$
TOTAL:	1.051

XX = AM PEAK HOUR
(XX) = PM PEAK HOUR
Ⓢ = SIGNALIZED INTERSECTION

Rev.	Date	Revision

Issued For	Date	By

Design: NJB	Draft: NJB	Date: FEB 2023
Checked: RED	Scale: NTS	Job No.: 4015

File Name: Figure Set.dwg

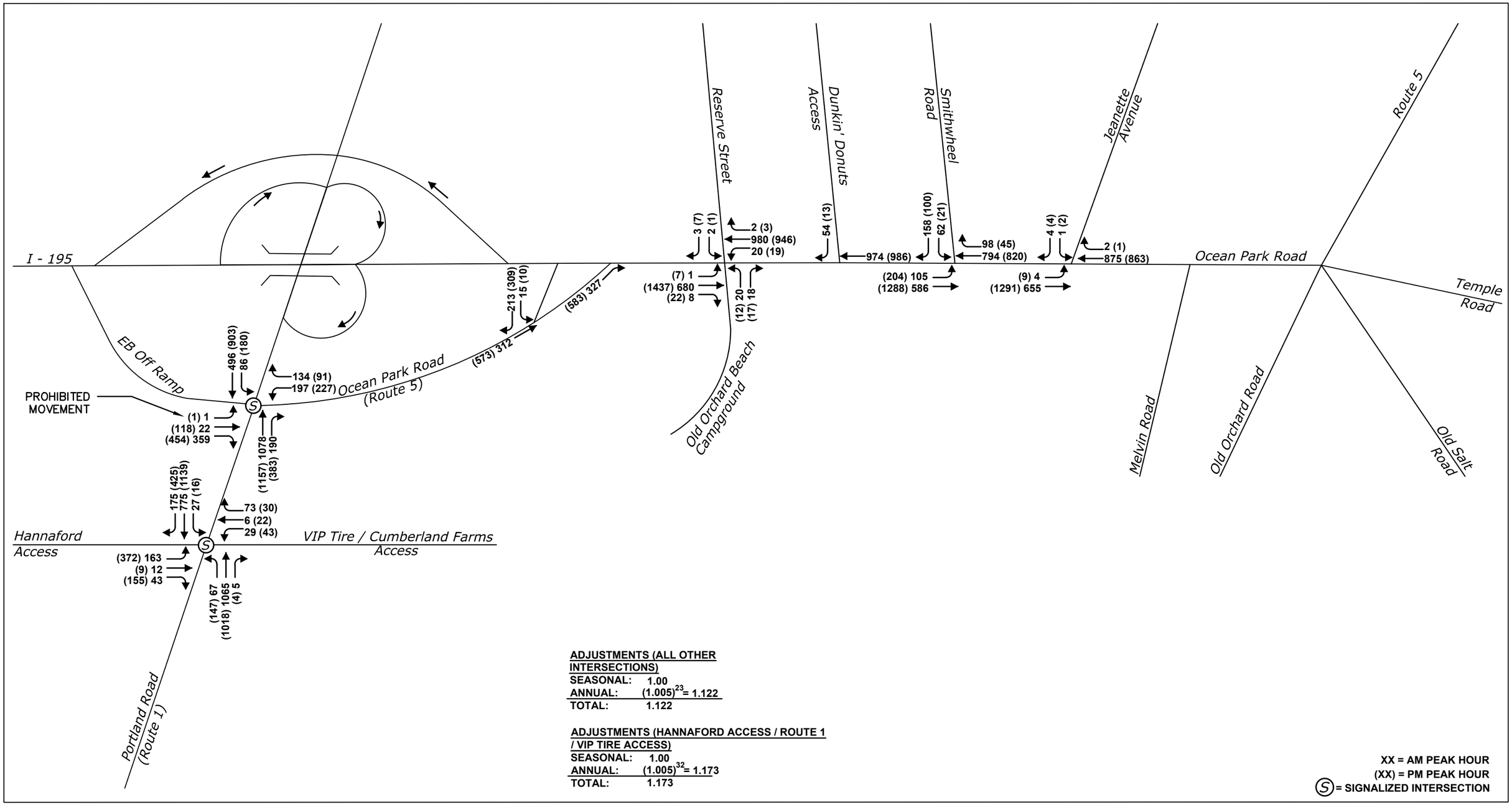
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Drawing Name:	2023 DHV
Project:	Corridor Study Old Orchard Beach, Maine
Client:	Town of Old Orchard Beach 1 Portland Avenue, Old Orchard Beach, Maine 04064

Drawing No. 02

Ocean Park Road Study - No Build 2045 Design Hourly Volumes



ADJUSTMENTS (ALL OTHER INTERSECTIONS)

SEASONAL:	1.00
ANNUAL:	$(1.005)^{23} = 1.122$
TOTAL:	1.122

ADJUSTMENTS (HANNAFORD ACCESS / ROUTE 1 / VIP TIRE ACCESS)

SEASONAL:	1.00
ANNUAL:	$(1.005)^{32} = 1.173$
TOTAL:	1.173

XX = AM PEAK HOUR
(XX) = PM PEAK HOUR
(S) = SIGNALIZED INTERSECTION

Rev.	Date	Revision

Issued For	Date	By

Design: NJB	Draft: NJB	Date: FEB 2023
Checked: RED	Scale: NTS	Job No.: 4015
File Name: Figure Set.dwg		

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Drawing Name:	2045 DHV
Project:	Corridor Study Old Orchard Beach, Maine
Client:	Town of Old Orchard Beach 1 Portland Avenue, Old Orchard Beach, Maine 04064

Drawing No. 03

Attachment B

Computer Analysis Printouts

- 2023 AM Peak Hour
- 2023 PM Peak Hour
- 2045 AM Peak Hour
- 2045 PM Peak Hour

2023 AM Peak Hour

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1710	1730	1692	1712	1687	1704
Vehs Exited	1709	1734	1698	1702	1700	1709
Starting Vehs	30	30	35	24	35	30
Ending Vehs	31	26	29	34	22	26
Travel Distance (mi)	697	705	690	694	698	697
Travel Time (hr)	29.3	29.7	28.8	29.0	29.5	29.3
Total Delay (hr)	4.0	4.0	3.7	3.7	3.9	3.9
Total Stops	484	447	508	470	438	468
Fuel Used (gal)	24.7	25.0	24.3	24.6	24.5	24.6

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1710	1730	1692	1712	1687	1704
Vehs Exited	1709	1734	1698	1702	1700	1709
Starting Vehs	30	30	35	24	35	30
Ending Vehs	31	26	29	34	22	26
Travel Distance (mi)	697	705	690	694	698	697
Travel Time (hr)	29.3	29.7	28.8	29.0	29.5	29.3
Total Delay (hr)	4.0	4.0	3.7	3.7	3.9	3.9
Total Stops	484	447	508	470	438	468
Fuel Used (gal)	24.7	25.0	24.3	24.6	24.5	24.6

4: OPR & Ocean Park Rd Performance by lane

Lane	EB	WB	NE	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	1.0	0.4	0.9	0.6

5: Ocean Park Rd Performance by lane

Lane	EB	SW	SW	All
Movements Served	T	L	R	
Denied Del/Veh (s)				0.1
Total Del/Veh (s)	0.4	1.3	0.7	0.5

6: Ocean Park Rd & 195 EB Performance by lane

Lane	EB	WB	WB	WB	All
Movements Served	T	L	T	T	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	0.4	3.0	0.6	0.1	0.9

7: OOB Campgroud/Reserve St & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	SB	All
Movements Served	L	T	TR	L	TR	LTR	
Denied Del/Veh (s)							0.0
Total Del/Veh (s)		0.7	0.5	2.3	0.3	11.6	0.5

10: OOB Campground/Dunkin & Ocean Park Rd Performance by lane

Lane	EB	EB	WB	NB	NB	SB	All
Movements Served	T	T	T	L	R	R	
Denied Del/Veh (s)							0.1
Total Del/Veh (s)	0.2	0.1	0.9	21.8	3.5	9.6	1.1

13: Ocean Park Rd & Smithwheel Rd Performance by lane

Lane	EB	EB	EB	WB	SB	SB	All
Movements Served	L	T	T	TR	L	R	
Denied Del/Veh (s)							0.3
Total Del/Veh (s)	11.2	0.6	0.1	1.4	36.0	10.6	3.6

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	LT	T	TR	LR	
Denied Del/Veh (s)					0.4
Total Del/Veh (s)	0.3	0.1	0.9	11.1	0.6

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	EB	All
Movements Served	T	TR	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	0.1	0.1	0.1

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	7.2

Intersection: 4: OPR & Ocean Park Rd

Movement	EB	NE
Directions Served	T	R
Maximum Queue (ft)	77	66
Average Queue (ft)	7	8
95th Queue (ft)	40	36
Link Distance (ft)	335	397
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Ocean Park Rd

Movement	SW
Directions Served	L
Maximum Queue (ft)	30
Average Queue (ft)	3
95th Queue (ft)	18
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	25
Storage Blk Time (%)	0
Queuing Penalty (veh)	1

Intersection: 6: Ocean Park Rd & 195 EB

Movement	WB
Directions Served	L
Maximum Queue (ft)	80
Average Queue (ft)	33
95th Queue (ft)	62
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	185
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: OOB Campgroud/Reserve St & Ocean Park Rd

Movement	EB	WB	WB	SB
Directions Served	L	L	TR	LTR
Maximum Queue (ft)	12	31	6	30
Average Queue (ft)	0	7	0	5
95th Queue (ft)	6	28	4	22
Link Distance (ft)			46	521
Upstream Blk Time (%)		0	0	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)	300	50		
Storage Blk Time (%)		0	0	
Queuing Penalty (veh)		1	0	

Intersection: 10: OOB Campground/Dunkin & Ocean Park Rd

Movement	WB	NB	NB	SB
Directions Served	T	L	R	R
Maximum Queue (ft)	16	43	32	57
Average Queue (ft)	1	16	12	26
95th Queue (ft)	8	42	35	51
Link Distance (ft)	93	280		153
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: Ocean Park Rd & Smithwheel Rd

Movement	EB	EB	EB	WB	SB	SB
Directions Served	L	T	T	TR	L	R
Maximum Queue (ft)	78	58	19	49	84	105
Average Queue (ft)	38	3	1	7	35	53
95th Queue (ft)	67	31	13	30	73	90
Link Distance (ft)		93	93	118	950	
Upstream Blk Time (%)	0	0	0			
Queuing Penalty (veh)	0	0	0			
Storage Bay Dist (ft)	80					200
Storage Blk Time (%)	1	0				
Queuing Penalty (veh)	2	0				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	18	22
Average Queue (ft)	1	2
95th Queue (ft)	9	13
Link Distance (ft)	118	555
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 4

2023 PM Peak Hour

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2268	2391	2317	2271	2334	2313
Vehs Exited	2271	2401	2306	2277	2322	2315
Starting Vehs	44	52	39	35	42	40
Ending Vehs	41	42	50	29	54	42
Travel Distance (mi)	942	997	962	943	964	962
Travel Time (hr)	40.6	45.2	42.0	41.6	43.9	42.6
Total Delay (hr)	6.6	9.1	7.2	7.5	8.9	7.8
Total Stops	734	972	815	855	957	865
Fuel Used (gal)	33.3	36.4	34.2	33.9	34.8	34.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2268	2391	2317	2271	2334	2313
Vehs Exited	2271	2401	2306	2277	2322	2315
Starting Vehs	44	52	39	35	42	40
Ending Vehs	41	42	50	29	54	42
Travel Distance (mi)	942	997	962	943	964	962
Travel Time (hr)	40.6	45.2	42.0	41.6	43.9	42.6
Total Delay (hr)	6.6	9.1	7.2	7.5	8.9	7.8
Total Stops	734	972	815	855	957	865
Fuel Used (gal)	33.3	36.4	34.2	33.9	34.8	34.5

4: OPR & Ocean Park Rd Performance by lane

Lane	EB	WB	NE	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	7.6	0.4	5.1	4.1

5: Ocean Park Rd Performance by lane

Lane	EB	SW	SW	All
Movements Served	T	L	R	
Denied Del/Veh (s)				0.2
Total Del/Veh (s)	0.7	4.0	1.1	0.9

6: Ocean Park Rd & 195 EB Performance by lane

Lane	EB	WB	WB	WB	All
Movements Served	T	L	T	T	
Denied Del/Veh (s)					0.3
Total Del/Veh (s)	1.9	8.8	1.1	0.1	2.8

7: OOB Campgroud/Reserve St & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	SB	All
Movements Served	L	T	TR	L	TR	LTR	
Denied Del/Veh (s)							0.0
Total Del/Veh (s)	6.1	1.9	1.0	8.3	0.3	10.9	1.1

10: OOB Campground/Dunkin & Ocean Park Rd Performance by lane

Lane	EB	EB	WB	NB	NB	SB	All
Movements Served	T	T	T	L	R	R	
Denied Del/Veh (s)							0.0
Total Del/Veh (s)	0.5	0.2	0.8	85.1	9.3	12.5	1.1

13: Ocean Park Rd & Smithwheel Rd Performance by lane

Lane	EB	EB	EB	WB	SB	SB	All
Movements Served	L	T	T	TR	L	R	
Denied Del/Veh (s)							0.1
Total Del/Veh (s)	9.9	1.2	0.2	1.1	40.9	10.4	2.2

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	LT	T	TR	LR	
Denied Del/Veh (s)					0.3
Total Del/Veh (s)	0.4	0.2	0.9	8.0	0.6

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	EB	All
Movements Served	T	TR	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	0.1	0.1	0.1

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	11.3

Intersection: 4: OPR & Ocean Park Rd

Movement	EB	NE
Directions Served	T	R
Maximum Queue (ft)	344	284
Average Queue (ft)	111	71
95th Queue (ft)	306	190
Link Distance (ft)	335	397
Upstream Blk Time (%)	2	0
Queuing Penalty (veh)	12	1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Ocean Park Rd

Movement	EB	SW
Directions Served	T	L
Maximum Queue (ft)	14	30
Average Queue (ft)	0	6
95th Queue (ft)	10	25
Link Distance (ft)	810	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		25
Storage Blk Time (%)		1
Queuing Penalty (veh)		3

Intersection: 6: Ocean Park Rd & 195 EB

Movement	EB	WB	WB	WB
Directions Served	T	L	T	T
Maximum Queue (ft)	206	152	67	67
Average Queue (ft)	17	70	2	2
95th Queue (ft)	101	126	47	47
Link Distance (ft)	866		335	335
Upstream Blk Time (%)			0	0
Queuing Penalty (veh)			0	0
Storage Bay Dist (ft)		185		
Storage Blk Time (%)		0		
Queuing Penalty (veh)		1		

Intersection: 7: OOB Campgroud/Reserve St & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	TR	L	TR	LTR
Maximum Queue (ft)	31	56	57	33	9	35
Average Queue (ft)	3	3	3	13	0	6
95th Queue (ft)	19	31	29	37	7	26
Link Distance (ft)		242	242		46	521
Upstream Blk Time (%)				0	0	
Queuing Penalty (veh)				0	0	
Storage Bay Dist (ft)	300			50		
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				2	0	

Intersection: 10: OOB Campground/Dunkin & Ocean Park Rd

Movement	EB	EB	WB	NB	NB	SB
Directions Served	T	T	T	L	R	R
Maximum Queue (ft)	35	4	43	64	37	39
Average Queue (ft)	3	0	4	16	11	10
95th Queue (ft)	20	3	22	49	36	34
Link Distance (ft)	46	46	93	280		153
Upstream Blk Time (%)	1					
Queuing Penalty (veh)	3					
Storage Bay Dist (ft)					100	
Storage Blk Time (%)				1		
Queuing Penalty (veh)				0		

Intersection: 13: Ocean Park Rd & Smithwheel Rd

Movement	EB	EB	EB	WB	SB	SB
Directions Served	L	T	T	TR	L	R
Maximum Queue (ft)	90	123	93	31	44	98
Average Queue (ft)	55	23	8	5	12	42
95th Queue (ft)	83	93	48	21	38	75
Link Distance (ft)		93	93	118	950	
Upstream Blk Time (%)	1	1	0			
Queuing Penalty (veh)	0	9	1			
Storage Bay Dist (ft)	80					200
Storage Blk Time (%)	3	1				
Queuing Penalty (veh)	17	2				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	52	34	6	18
Average Queue (ft)	5	1	0	3
95th Queue (ft)	34	18	4	14
Link Distance (ft)	118	118		555
Upstream Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 52

2045 AM Peak Hour

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1937	1927	1881	1869	1909	1904
Vehs Exited	1934	1928	1888	1876	1905	1907
Starting Vehs	41	38	34	32	30	33
Ending Vehs	44	37	27	25	34	33
Travel Distance (mi)	795	791	765	769	778	779
Travel Time (hr)	34.7	34.3	33.2	33.0	33.9	33.8
Total Delay (hr)	5.9	5.5	5.5	5.0	5.5	5.5
Total Stops	579	574	576	560	552	568
Fuel Used (gal)	28.5	28.4	27.3	27.6	27.8	27.9

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1937	1927	1881	1869	1909	1904
Vehs Exited	1934	1928	1888	1876	1905	1907
Starting Vehs	41	38	34	32	30	33
Ending Vehs	44	37	27	25	34	33
Travel Distance (mi)	795	791	765	769	778	779
Travel Time (hr)	34.7	34.3	33.2	33.0	33.9	33.8
Total Delay (hr)	5.9	5.5	5.5	5.0	5.5	5.5
Total Stops	579	574	576	560	552	568
Fuel Used (gal)	28.5	28.4	27.3	27.6	27.8	27.9

4: OPR & Ocean Park Rd Performance by lane

Lane	EB	WB	NE	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	1.1	0.4	1.0	0.7

5: Ocean Park Rd Performance by lane

Lane	EB	SW	SW	All
Movements Served	T	L	R	
Denied Del/Veh (s)				0.1
Total Del/Veh (s)	0.4	1.3	0.7	0.5

6: Ocean Park Rd & 195 EB Performance by lane

Lane	EB	WB	WB	WB	All
Movements Served	T	L	T	T	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	0.5	3.3	0.7	0.1	1.0

7: OOB Campgroud/Reserve St & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	SB	All
Movements Served	L	T	TR	L	TR	LTR	
Denied Del/Veh (s)							0.0
Total Del/Veh (s)		0.9	0.5	2.2	0.3	21.2	0.6

10: OOB Campground/Dunkin & Ocean Park Rd Performance by lane

Lane	EB	EB	WB	NB	NB	SB	All
Movements Served	T	T	T	L	R	R	
Denied Del/Veh (s)							0.1
Total Del/Veh (s)	0.4	0.1	1.0	35.8	3.9	14.4	1.5

13: Ocean Park Rd & Smithwheel Rd Performance by lane

Lane	EB	EB	EB	WB	SB	SB	All
Movements Served	L	T	T	TR	L	R	
Denied Del/Veh (s)							0.3
Total Del/Veh (s)	12.9	1.1	0.1	1.6	57.6	15.9	5.2

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	LT	T	TR	LR	
Denied Del/Veh (s)					0.5
Total Del/Veh (s)	0.4	0.1	1.0	8.6	0.7

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	EB	All
Movements Served	T	TR	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	0.1	0.1	0.1

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	9.4

Intersection: 4: OPR & Ocean Park Rd

Movement	EB	NE
Directions Served	T	R
Maximum Queue (ft)	78	64
Average Queue (ft)	13	10
95th Queue (ft)	55	40
Link Distance (ft)	335	397
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Ocean Park Rd

Movement	SW	SW
Directions Served	L	R
Maximum Queue (ft)	27	18
Average Queue (ft)	4	1
95th Queue (ft)	20	9
Link Distance (ft)		64
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)	25	
Storage Blk Time (%)	0	0
Queuing Penalty (veh)	1	0

Intersection: 6: Ocean Park Rd & 195 EB

Movement	WB
Directions Served	L
Maximum Queue (ft)	85
Average Queue (ft)	39
95th Queue (ft)	70
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	185
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: OOB Campgroud/Reserve St & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	TR	L	TR	LTR
Maximum Queue (ft)	12	19	16	32	21	38
Average Queue (ft)	0	1	1	8	1	6
95th Queue (ft)	6	14	11	30	9	27
Link Distance (ft)		242	242		46	521
Upstream Blk Time (%)				0	0	
Queuing Penalty (veh)				0	0	
Storage Bay Dist (ft)	300			50		
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				1	0	

Intersection: 10: OOB Campground/Dunkin & Ocean Park Rd

Movement	EB	WB	NB	NB	SB
Directions Served	T	T	L	R	R
Maximum Queue (ft)	15	31	61	39	95
Average Queue (ft)	1	1	18	16	33
95th Queue (ft)	13	12	48	39	65
Link Distance (ft)	46	93	280		153
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	1				
Storage Bay Dist (ft)				100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 13: Ocean Park Rd & Smithwheel Rd

Movement	EB	EB	EB	WB	SB	SB
Directions Served	L	T	T	TR	L	R
Maximum Queue (ft)	78	103	93	54	135	185
Average Queue (ft)	43	6	5	11	48	67
95th Queue (ft)	71	47	39	39	109	129
Link Distance (ft)		93	93	118	950	
Upstream Blk Time (%)	1	1	0			
Queuing Penalty (veh)	0	3	0			
Storage Bay Dist (ft)	80					200
Storage Blk Time (%)	2	1			1	0
Queuing Penalty (veh)	5	1			1	0

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	31	6	18
Average Queue (ft)	2	0	2
95th Queue (ft)	14	4	10
Link Distance (ft)	118		555
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 14

2045 PM Peak Hour

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2600	2621	2578	2552	2568	2585
Vehs Exited	2602	2650	2559	2535	2568	2583
Starting Vehs	49	60	35	36	55	49
Ending Vehs	47	31	54	53	55	47
Travel Distance (mi)	1098	1115	1082	1073	1087	1091
Travel Time (hr)	54.1	56.1	53.2	51.2	49.2	52.7
Total Delay (hr)	14.4	15.7	14.1	12.4	9.8	13.3
Total Stops	1197	1316	1195	1086	1032	1165
Fuel Used (gal)	40.7	41.8	40.0	39.4	39.1	40.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2600	2621	2578	2552	2568	2585
Vehs Exited	2602	2650	2559	2535	2568	2583
Starting Vehs	49	60	35	36	55	49
Ending Vehs	47	31	54	53	55	47
Travel Distance (mi)	1098	1115	1082	1073	1087	1091
Travel Time (hr)	54.1	56.1	53.2	51.2	49.2	52.7
Total Delay (hr)	14.4	15.7	14.1	12.4	9.8	13.3
Total Stops	1197	1316	1195	1086	1032	1165
Fuel Used (gal)	40.7	41.8	40.0	39.4	39.1	40.2

4: OPR & Ocean Park Rd Performance by lane

Lane	EB	WB	NE	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	9.4	0.7	11.8	6.5

5: Ocean Park Rd Performance by lane

Lane	EB	SW	SW	All
Movements Served	T	L	R	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	1.3	8.2	1.3	1.4

6: Ocean Park Rd & 195 EB Performance by lane

Lane	EB	WB	WB	WB	All
Movements Served	T	L	T	T	
Denied Del/Veh (s)					0.4
Total Del/Veh (s)	5.1	16.3	1.9	0.3	5.7

7: OOB Campgroud/Reserve St & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	SB	All
Movements Served	L	T	TR	L	TR	LTR	
Denied Del/Veh (s)							0.0
Total Del/Veh (s)	7.9	2.3	1.2	9.7	0.3	11.7	1.3

10: OOB Campground/Dunkin & Ocean Park Rd Performance by lane

Lane	EB	EB	WB	NB	NB	SB	All
Movements Served	T	T	T	L	R	R	
Denied Del/Veh (s)							0.0
Total Del/Veh (s)	0.6	0.2	0.8	98.3	13.5	10.9	1.1

13: Ocean Park Rd & Smithwheel Rd Performance by lane

Lane	EB	EB	EB	WB	SB	SB	All
Movements Served	L	T	T	TR	L	R	
Denied Del/Veh (s)							0.1
Total Del/Veh (s)	12.9	1.5	0.3	1.2	112.2	12.6	3.4

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	LT	T	TR	LR	
Denied Del/Veh (s)					0.3
Total Del/Veh (s)	0.6	0.3	0.9	6.7	0.6

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	EB	All
Movements Served	T	TR	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	0.1	0.1	0.1

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	17.3

Intersection: 4: OPR & Ocean Park Rd

Movement	EB	WB	NE
Directions Served	T	T	R
Maximum Queue (ft)	340	50	353
Average Queue (ft)	134	5	128
95th Queue (ft)	363	60	311
Link Distance (ft)	335	242	397
Upstream Blk Time (%)	4	0	1
Queuing Penalty (veh)	35	1	7
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Ocean Park Rd

Movement	EB	SW	SW
Directions Served	T	L	R
Maximum Queue (ft)	90	35	24
Average Queue (ft)	5	6	1
95th Queue (ft)	47	25	13
Link Distance (ft)	810		64
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)		25	
Storage Blk Time (%)		2	0
Queuing Penalty (veh)		7	0

Intersection: 6: Ocean Park Rd & 195 EB

Movement	EB	WB	WB	WB
Directions Served	T	L	T	T
Maximum Queue (ft)	501	200	192	173
Average Queue (ft)	69	97	17	9
95th Queue (ft)	331	177	132	91
Link Distance (ft)	866		335	335
Upstream Blk Time (%)	0		0	0
Queuing Penalty (veh)	0		1	0
Storage Bay Dist (ft)		185		
Storage Blk Time (%)		4	0	
Queuing Penalty (veh)		12	0	

Intersection: 7: OOB Campgroud/Reserve St & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	TR	L	TR	LTR
Maximum Queue (ft)	35	96	74	34	47	34
Average Queue (ft)	6	6	3	11	3	7
95th Queue (ft)	27	44	32	36	23	28
Link Distance (ft)		242	242		46	521
Upstream Blk Time (%)				0	0	
Queuing Penalty (veh)				0	1	
Storage Bay Dist (ft)	300			50		
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				3	0	

Intersection: 10: OOB Campground/Dunkin & Ocean Park Rd

Movement	EB	EB	WB	NB	NB	SB
Directions Served	T	T	T	L	R	R
Maximum Queue (ft)	54	17	39	64	41	38
Average Queue (ft)	7	1	2	15	14	10
95th Queue (ft)	34	12	17	46	39	33
Link Distance (ft)	46	46	93	280		153
Upstream Blk Time (%)	1	0	0			
Queuing Penalty (veh)	10	0	0			
Storage Bay Dist (ft)					100	
Storage Blk Time (%)				0		
Queuing Penalty (veh)				0		

Intersection: 13: Ocean Park Rd & Smithwheel Rd

Movement	EB	EB	EB	WB	SB	SB
Directions Served	L	T	T	TR	L	R
Maximum Queue (ft)	92	124	104	69	87	104
Average Queue (ft)	59	30	17	7	28	44
95th Queue (ft)	87	109	75	37	71	80
Link Distance (ft)		93	93	118	950	
Upstream Blk Time (%)	3	3	0	0		
Queuing Penalty (veh)	0	20	3	0		
Storage Bay Dist (ft)	80					200
Storage Blk Time (%)	5	3				
Queuing Penalty (veh)	34	6				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	65	44	46	18
Average Queue (ft)	7	2	2	3
95th Queue (ft)	37	27	24	15
Link Distance (ft)	118	118		555
Upstream Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 141

GORRILL PALMER

300 Southborough Drive, Suite 200
South Portland, Maine 04106
207.772.2515

MEMORANDUM
ALTERNATIVES EVALUATION
OCEAN PARK ROAD STUDY
OLD ORCHARD BEACH-SACO, ME
WIN 26660.00
June 25, 2023

PURPOSE OF EVALUATION

To date, this overall Ocean Park Road Study has completed numerous sub-studies, evaluations, and has had numerous stakeholder meetings. The purpose of that effort was to establish the starting point for the study and to identify the sensitivity of different components of the corridor, all in an effort to eliminate some alternatives and refine the remaining alternatives. By completing that effort, the remainder of the study can focus on alternatives that can potentially make it to fruition and become viable alternatives for future implementation.

The purpose of this evaluation is to move the study forward and inform stakeholders on the current findings of the refined alternatives such that decisions can be made on the direction the Town would like to go, with input from the MaineDOT. This evaluation does not re-iterate previous decisions or evaluations that lead to this juncture, but instead attempts to move the Town closer to their goal.

This memorandum will provide a summary of the following:

- Traffic Volumes
- Alternatives
- Computer Modeling Results
- Alternatives Comparison
- Next Steps and Recommendations

TRAFFIC VOLUMES

The 2045 traffic volumes used for this evaluation were calculated previously and submitted to the Town and MaineDOT for review and approval. The adjustment factors and traffic volumes were approved by MaineDOT as identified in an email from Marty Rooney to Gorrill Palmer dated February 24, 2023. The 2045 no-build volumes are provided in Attachment A as Figure 3.

It should be noted that the volumes for the campground opposite Smithwheel Drive have been adjusted since previous submittals to include potential future development on-site. The volumes were provided by the applicant's traffic engineer.

Seasonal Variation – As identified numerous times previously, this corridor experiences significant seasonal variation, with traffic significantly higher in the summertime and lower in the non-summertime months. This variation is discussed in more detail in other sections herein.

ALTERNATIVES

As identified in the "Purpose of Evaluation", there have been numerous sub-studies, evaluations, and discussions that have led the study to this point. Based on that previous effort, several alternatives have been eliminated, but two general alternatives have risen to the top as follows (in no particular order):

- Roundabout Alternative: This alternative includes roundabouts at the intersections of; I-195 / Ocean Park Road (main line) / Ocean Park Road (side street), and the halfway intersection. The Smithwheel Road intersection remains unsignalized in this alternative.

- Signal Alternative: This alternative includes fully functional traffic signals at the following three intersections: 1) I-195 / Ocean Park Road (main line) / Ocean Park Road (side street), 2) halfway intersection, 3) Smithwheel Road / OOB Campground (assumed relocated opposite Smithwheel Road). The three signals would be interconnected and coordinated which would allow for platooning of through traffic on Ocean Park Road.

  It should be noted that a signal warrant was completed for the intersection of Smithwheel Road / Ocean Park Road / Re-located OOB Campground. Based on that signal warrant analysis, it is our opinion that the intersection would not meet any signal warrants based on traffic volumes, but would warrant signalization under Warrant 6 – Coordinated Signal System. To be considered for this warrant, the intersections at both halfway and the I-195 / Ocean Park Road intersection would also have to be signalized. Therefore, if the Roundabout Alternative were pursued, the Smithwheel Road intersection would not be signalized.

One of the Town's goals for this corridor is to keep the intersections and corridor as "small" as possible. This not only presents more of a village atmosphere and gateway to the downtown but could also result in more real estate to use for pedestrians, bicyclists and other non-vehicular uses.

Part of the purpose of this evaluation is to identify the sensitivity of several factors used in the design of the corridor, such that additional informed decisions can be made for further refinement. The following are variables that were considered in the computer modeling of the above alternatives;

- Size of roundabout – There are countless number of configurations for roundabouts, but they generally can be categorized as follows:

  - Single Lane – Includes a single lane all the way around the roundabout
  - Multi-Lane – Includes a combination of some single lane portions and generally some two lane portions
  - Two Lane – Includes two circulating lanes all the way around the roundabout

  Attachment C shows the lane uses assumed for each of the scenarios.

- Peak Hour Factor (PHF) – This adjustment represents how well hourly traffic flow is distributed throughout the hour. MaineDOT typically completes their modeling with a 0.92 PHF, which represents reasonable distribution, but still some variability. A 1.0 would represent consistent flow throughout the hour such as would occur during the peak hours in peak summer conditions when traffic is consistently heavy.

The computer modeling has been completed assuming both a PHF of 0.92 and 1.0 as described later in this evaluation.

- Time of year – As discussed previously, this corridor experiences significant variation in traffic volumes throughout the year. MaineDOT typically requires evaluations completed assuming the 6th highest week of the year, which is during the peak summer months. These volumes would be exceeded approximately a month and a half of the year. If the corridor is designed for peak summer months, it has the potential to be overdesigned for the remainder of the year. If it is designed for the average time of year, the corridor has the potential to be under-designed resulting in oversaturated conditions for the peak summertime conditions.

  The computer modeling has been completed based on peak summer months as well as assuming a time period with volumes that would only be exceeded four months of the year (identified as 8 mos.).

It should be noted that the OOB Campground independent of this study is currently pursuing a MaineDOT Traffic Movement Permit for expansion of the campground and addition of other on-site uses. As part of that application, the applicant has proposed re-locating their current driveway onto Ocean Park Road so that it is opposite Smithwheel Road. Based on this information, all the scenarios have assumed this driveway re-located as proposed in their application.

COMPUTER MODELING RESULTS

Intersection Capacity Analysis:

This section summarizes the results of the capacity analysis for the study area intersections for the following conditions using the different sensitivity factors identified in the previous section. The computer printouts are provided in Attachment B:

- 2045 No-Build Scenario – AM & PM Peak Hours
- 2045 Roundabout Alternative – Smaller Footprint - AM & PM Peak Hours
  Modified Footprint – PM Peak Hour
- 2045 Signal Alternative – Smaller Footprint - AM & PM Peak Hours
  Modified Footprint – PM Peak Hour

The "No Build Scenario" assumes that existing geometry is unchanged, and no mitigation or alternatives are in place, with the exception of relocating the OOB Campground driveway opposite Smithwheel Road. It is our understanding that relocation may occur as part of the Campground project regardless of the outcome of this study. It should be noted that all the analysis assumed a formal right turn lane on Ocean Park Road turning right into the campground. This was included to allow larger vehicles (such as campers and RVs) to get out of the through traffic stream. This right turn lane could be removed if desired but would decrease the capacity of the intersection. To keep or remove the lane is a decision that can be made once more evaluation and concept plans are completed.

Figures in Attachment C show lane uses for the three intersections under the "smaller" and "modified" scenarios.

The level of service criteria for unsignalized / roundabout and signalized intersections is presented in the following Tables 1 & 2 respectively with Intersection Capacity Utilization (ICU) thresholds shown in Table 3.

Table 1 - Level of Service Criteria for Unsignalized & Roundabout Intersections

Level of Service	Control Delay per Vehicle (s)
A	Less than 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater than 50.0

Table 2 - Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay per Vehicle (s)
A	Less than 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	Greater than 80.0

Table 3 – Intersection Capacity Utilization (ICU)

Level of Service	ICU (%)
A	< 55
B	55 – 64
C	64 – 73
D	73 – 82
E	82 – 91
F	91 – 100
G	100 – 109
H	>109

Note ICU provides levels of service below F to indicate how far over capacity the intersection is operating.

The computer modeling used the Synchro/SimTraffic computer analysis software (Version 11). The measures of effectiveness (MOE) used in the evaluations are described in more detail as follows:

- Level of service (LOS) – These rankings are similar to the academic ranking system where an 'A' is good with little control delay and an 'F' represents poor traffic conditions. If the level of service falls below a 'D,' an evaluation should be made to determine if mitigation is warranted. The LOS shown in the summary tables is based on five averaged runs of Simtraffic.

- Intersection Capacity Utilization (ICU) – This MOE is an indicator of how much of the intersection capacity is being used. For ICU, the intersection must be operating at less than 82% of capacity to be at a LOS D. The ICU is based on Synchro.

- Volume to Capacity (V/C) – This MOE is a measure of the intersection volume over the capacity of the intersection. As an intersection approaches 1.0, the intersection approaches capacity. Typically, a V/C less than 0.90 is preferred. The V/C's by movement are shown on figures in Attachment B.

- Design Hourly Volumes (DHV) – For the purposes of this evaluation, the design hourly volumes are the weekday AM & PM peak hours of adjacent street traffic in the year 2045. The time of year depends on the scenario as discussed previously.

The following Tables 4 & 5 summarize the results of the capacity analysis for "smaller" intersections in the AM & PM peak hours respectively.

Table 4 - 2045 Modeling Results – Smaller Size Footprints – AM Peak Hour

Location	No Build		Roundabouts						Signal					
	DHV / 0.92 PHF (a.)		8 mos. / 0.92 PHF (b.)		DHV / 1.0 PHF (c.)		DHV / 0.92 PHF (d.)		8 mos. / 0.92 PHF (e.)		DHV / 1.0 PHF (f.)		DHV / 0.92 PHF (g.)	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
I-195 / OPR	56	A	79	A	102	C	102	C	45	A	55	B	55	B
Smithwheel / OPR	84	A	59	A	73	D	73	D	64	A	78	B	78	B
Halfway	*	*	77	A	103	A	103	A	58	B	73	B	73	B

Table 5 - 2045 Modeling Results – Smaller Size Footprints – PM Peak Hour

Location	No Build		Roundabouts						Signal					
	DHV / 0.92 PHF (h.)		8 mos. / 0.92 PHF (i.)		DHV / 1.0 PHF (j.)		DHV / 0.92 PHF (k.)		8 mos. / 0.92 PHF (l.)		DHV / 1.0 PHF (m.)		DHV / 0.92 PHF (n.)	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
I-195 / OPR	90	A	100	A	130	A	130	A	72	C	92	E	92	D
Smithwheel / OPR	103	C	72	A	89	E	89	E	78	A	95	B	95	B
Halfway	*	*	93	A	124	B	124	B	60	B	78	C	78	C

*The halfway intersection was only evaluated for the build scenarios

As seen from Tables 4 & 5, there are certain scenarios that are expected to operate at low levels of service. This is discussed in more detail in following sections.

Based on a review of the results from Tables 4 & 5, it was clear that the PM peak hour is the most challenging to accommodate. Therefore, that time period was used to identify potential mitigation to improve the challenging areas. The following Table 6 summarizes the results of the capacity analysis for "modified" intersections in the PM peak hour.

Based on a review of the results from Tables 4 & 5, the following improvements were added and remodeled as a "Modified Footprint". Those improvements include:

- Roundabout Alternative – Added outbound left turn lane on OPR at the I-195 / OPR intersection. This is a relatively minor addition that is expected to have no changes to the size and number of lanes on the "core" of the corridor.

- Signal – Changed northbound right turn lane on OPR to have its own receiving lane and then alternating merge with inbound through movement from I-195. This is a relatively minor addition that is expected to have no changes to the size and number of lanes on the "core" of the corridor.

Additional modifications could be made if the goal of the study and overall implementation was vehicle centric. However, as identified at the beginning of this evaluation, the goal is to balance the needs of vehicles, pedestrians, bicyclists, slowing vehicles, and providing a gateway. The modifications identified above improve vehicular operations, while maintaining the goal of the Town for a smaller footprint.

Table 6 - 2045 Modeling Results – Modified Footprints – PM Peak Hour

Location	Roundabouts						Signal					
	8 mos. / 0.92 PHF (p.)		DHV / 1.0 PHF (q.)		DHV / 0.92 PHF (r.)		8 mos. / 0.92 PHF (s.)		DHV / 1.0 PHF (t.)		DHV / 0.92 PHF (u.)	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
I-195 / OPR	86	A	111	D	111	D	72	B	92	D	92	D
Smithwheel / OPR	72	A	89	F	89	F	78	A	95	B	95	B
Halfway	93	A	124	B	124	B	60	A	78	C	78	C

Based on the results from Table 6, the overall intersections are forecast to operate at reasonable levels of service with the exception of the Smithwheel Road intersection which is forecast to operate with significant delays during peak time periods for approximately four months of the year. A low level of service may be acceptable for certain times of the year; however, based on our observations of the SimTraffic modeling, those scenarios, in our opinion, are forecast to operate at such low levels, they are unacceptable. We explore that further in the following paragraphs.

We recognize that most readers will not review the supporting information in-depth, and that it can be difficult to identify from just the above tables where individual issues may lie. Although typically an "E" or less is considered failing, since the purpose of this study is not vehicular oriented to maintain or improve a level of operation for all movements, we have identified movements for the three intersections that had greater than a 100 second delay, what GP would consider to be excessive. In our

opinion, when delay reaches that level, even if only during the peak hours of the peak days, it would be considered unacceptable. (The "Scenario" letter in Table 7 corresponds to the letters in Tables 4-6)

Table 7 – Identification of Excessive Delays

Scenario	AM or PM	Smaller (S) or Modified (M) Footprint	Intersection	Movement	Delay (Sec.)
a	AM	na	Smithwheel / OOB	SB LT	111
b	AM	S	None		
c	AM	S	Smithwheel / OOB	NB LT	241
				SB LT	563
d	AM	S	Smithwheel / OOB	NB LT	241
				SB LT	563
e	AM	S	None		
f	AM	S	None		
g	AM	S	None		
h	PM	na	Smithwheel / OOB	NB LT	1041
				NB R	106
				SB LT	510
i	PM	S	Smithwheel / OOB	NB LT	153
				SB LT	135
j	PM	S	Smithwheel / OOB	NB LT	2140
		S		NB R	194
				SB LT	1299
k	PM	S	Smithwheel / OOB	NB LT	2140
				NB R	194
				SB LT	1299
l	PM	S	None		
m	PM	S	Halfway	NB L	107
			I-195 / OPR	NB L	415
n	PM	S	Halfway	NB L	135
			I-195 / OPR	NB L	404
p	PM	M	Smithwheel / OOB	NB LT	190
				SB LT	150
q	PM	M	Smithwheel / OOB	NB LT	1726
				NB R	323
				SB LT	2073
r	PM	M	Smithwheel / OOB	NB LT	1726
		M		NB R	323
				SB LT	2073
s	PM	M	None		
t	PM	M	Halfway	NB L	119
	PM	M	I-195 / OPR	EB T	126
u	PM	M	Halfway	NB L	110

XXX = No Build, XXX = Roundabout Alternative, XXX = Signal Alternative

Conclusions from the Capacity Analysis

From review of the previous capacity analysis Tables 4-7, the following conclusions are made:

- The PM peak hour is more challenging than the AM peak hour to accommodate
- Overall, the intersections operate better with the Signal Alternatives than the Roundabout Alternatives
- If one of the goals of this project is to accommodate Smithwheel Road, only the Signal Alternatives meet that goal
- With the Roundabout Alternatives, significant delays are forecast even at points less than the 8 month time period
- With the Signal Alternative, no significant delays are expected for the 8 month or less time period.

Roadway Segments Between Intersections

The previous section identified the MOEs of the intersections under numerous scenarios. It should be noted that because the distances between the intersections are relatively short, the design of the intersections will dictate the configuration of the roadway segments between the intersections. Once the results of this evaluation are discussed in more detail with the Town and MaineDOT, and the options for the intersections are refined, concepts for the entire corridor will be completed for review and discussion.

ALTERNATIVES COMPARISON

The measures of effectiveness of an intersection as identified in the previous section are just one component in comparing alternatives. A list of potential considerations for comparison include the following:

- Measures of effectiveness of the intersection (LOS, ICU, V/C) – This was described in detail in the previous section.

- Pedestrian and Bicycle accommodations – For the purpose of this evaluation, the comparison is more of a consideration for how well pedestrians can cross Ocean Park Road, and not how well they are accommodated along the corridor.

  In comparing the Roundabout and Signal alternatives, the most accommodating alternative for pedestrians crossing the road, especially in the area of Dunkin Donuts and the OOB Campground, is the Signal Alternative. Since the Roundabout Alternative does not significantly change this intersection, pedestrian accommodations would remain similar to what they are today, with little if any improvement.

- Smithwheel Road Intersection – From the onset of this study, the Town has identified the intersection of Smithwheel Road as a congestion and safety problem, more specifically the ability for vehicles on Smithwheel Road to be able to turn left from the road onto Ocean Park Road. Several people who live or work in the area expressed they use less direct routes just to avoid

this intersection. It was also expressed that if the resulting alternative does nothing for this intersection, it would be considered unacceptable.

In comparing the Roundabout and Signal alternatives, they both have advantages. Although the roundabout alternative does not do much at the intersection itself, it does provide a roundabout at the I-195 end, such that vehicles who wanted to take a left can take a right and use the roundabout to reverse direction. There is currently a "jug handle" that accomplishes the same thing now but is less efficient than a roundabout would be. The signal alternative would install a traffic signal at this intersection to assist vehicles entering and exiting Smithwheel Road. It should be noted that although this will improve the operations of Smithwheel Road, during peak hours of the day or times of the year, the signal would favor through traffic along Ocean Park Road which could result in significant delays on Smithwheel Road (but an improvement over what they have today).

- Weaving – Where the Ocean Park Road eastbound traffic merges with I-195 eastbound traffic is the primary location within the study area that experiences the most weaving of traffic between lanes. The eastbound Ocean Park Road traffic is technically required to "Yield" to the I-195 traffic; however, since the Ocean Park Road traffic has its own receiving lane, the traffic frequently does not acknowledge the "Yield" control.

  Within 500 feet of the beginning of this merge, some drivers from Ocean Park Road are trying to shift over to the left lane to visit Dunkin Donuts or use Smithwheel Road, while some traffic from I-195 is trying to shift to the right most lane to enter the campground on the southerly side of the road.

  In comparing the Roundabout and Signal alternatives, they both function similarly. The controlling factor is not the alternative itself, but the number of incoming through lanes from I-195, whether it is one or two. The need for one lane or two is more a factor of which design variables are used (i.e., time of year for design & PHF, and smaller or modified intersections).

  It should be noted that all the alternatives assume a formal right turn lane on Ocean Park Road at the re-located OOB Campground driveway. This should be discussed in more detail since it does introduce more width to the approach. The benefit of the right turn lane would be improved operations of the intersection. The disadvantage is that it would widen the corridor by one lane at the intersection.

- Ability to Control Traffic Backing up on I-195 – Currently the traffic traveling from I-195 enters the corridor in a free flow condition and does not have to stop. As a result of adding either a traffic signal or a roundabout at the intersection with Ocean Park Road, during peak times of the day or peak times of the year, that incoming traffic will need to stop periodically regardless of a traffic signal or roundabout. The concern with stopping the incoming traffic is the potential for this traffic to queue on I-195.

  In comparing the Roundabout and Signal alternatives, the Signal alternative has a significant advantage over the Roundabout alternative. The Signal alternative can install a detector upstream (before) the intersection that would allow the traffic signal to allocate more green time to that movement and avoid a queuing issue. Since all three of the traffic signals along the corridor will be coordinated, they can maintain a platoon of traffic all the way through the

corridor without overloading the interior of the corridor. The roundabout does not have a means in which to re-assign the right of way to that movement, and therefore cannot control the queuing.

The below comparison is based on comparing similar layouts, i.e., the "smaller" roundabout alternative compared to the "smaller" signal alternative and the same for the "modified" alternatives. For the comparison below, green indicates it provides a relatively good improvement or addresses the issue, yellow is some improvement, and red is little to no improvement or does not address the issue.

Table 8 – Alternatives Comparison

Criteria	*Roundabout Alternative*	*Signal Alternative*
MOE		
Peds / Bikes		
Smithwheel		
Weaving		
I-195 Queuing		

An additional factor that is not identified above is the costs of the alternative. If costs are so high on either alternative, such that it makes it impracticable, the other alternative may be chosen automatically. Preliminary opinions of costs will be completed in the next step of this study once conceptual plans are generated and vetted by the Town and MaineDOT.

Qualitative Considerations

In addition to the quantifiable factors, there are also qualitative considerations of each of the alternatives such as the "feel" of the corridor, the "walkability", and the gateway impact that should factor into the final decision of which alternative to pursue. There are also other advantages that may result from the chosen alternative that are not represented here.

An example of such an advantage would be a design that provides additional real estate along the corridor to accommodate pedestrians and bicycles. Based on this evaluation, it appears both the roundabout and signal alternatives will have a similar "core" cross section of the corridor with neither alternative better than the other in providing additional room for pedestrians and bicycles.

NEXT STEPS & RECOMMENDATIONS

Based on this evaluation, there are numerous decisions that need to be made as follows:

1. Which scenario should the design of the corridor be based on?
    - 8 mos. / 0.92 PHF
    - DHV / 1.0 PHF
    - DHV / 0.92 PHF

Recommendation: GP recommends a design that does not have excessive delays during the 8 mos. / 0.92 PHF scenario. This would eliminate the Roundabout Alternatives. Therefore, GP recommends moving forward with the Signal Alternative.

2. What size of the intersections are acceptable? As identified in the previous sections, there are advantages and disadvantages to both "smaller" and "modified" footprints.

   Recommendation: GP recommends moving forward with both the "smaller" and "modified" footprints for the Signal Alternative.

3. Keep or remove the formal right turn lane on Ocean Park Road for vehicles turning into the OOB Campground. This decision does not need to be made at this time, and both options can be explored further in the conceptual plan stage, which will be the next step in this study.

Once consensus is reached on the scenario to use for modeling (which dictates design), and confirmation on moving forward with the Signal Alternatives (both smaller and modified) and not the Roundabout Alternative, concept plans will be generated and final evaluations and analysis will be completed, along with calculating preliminary opinions of cost.

ATTACHMENTS

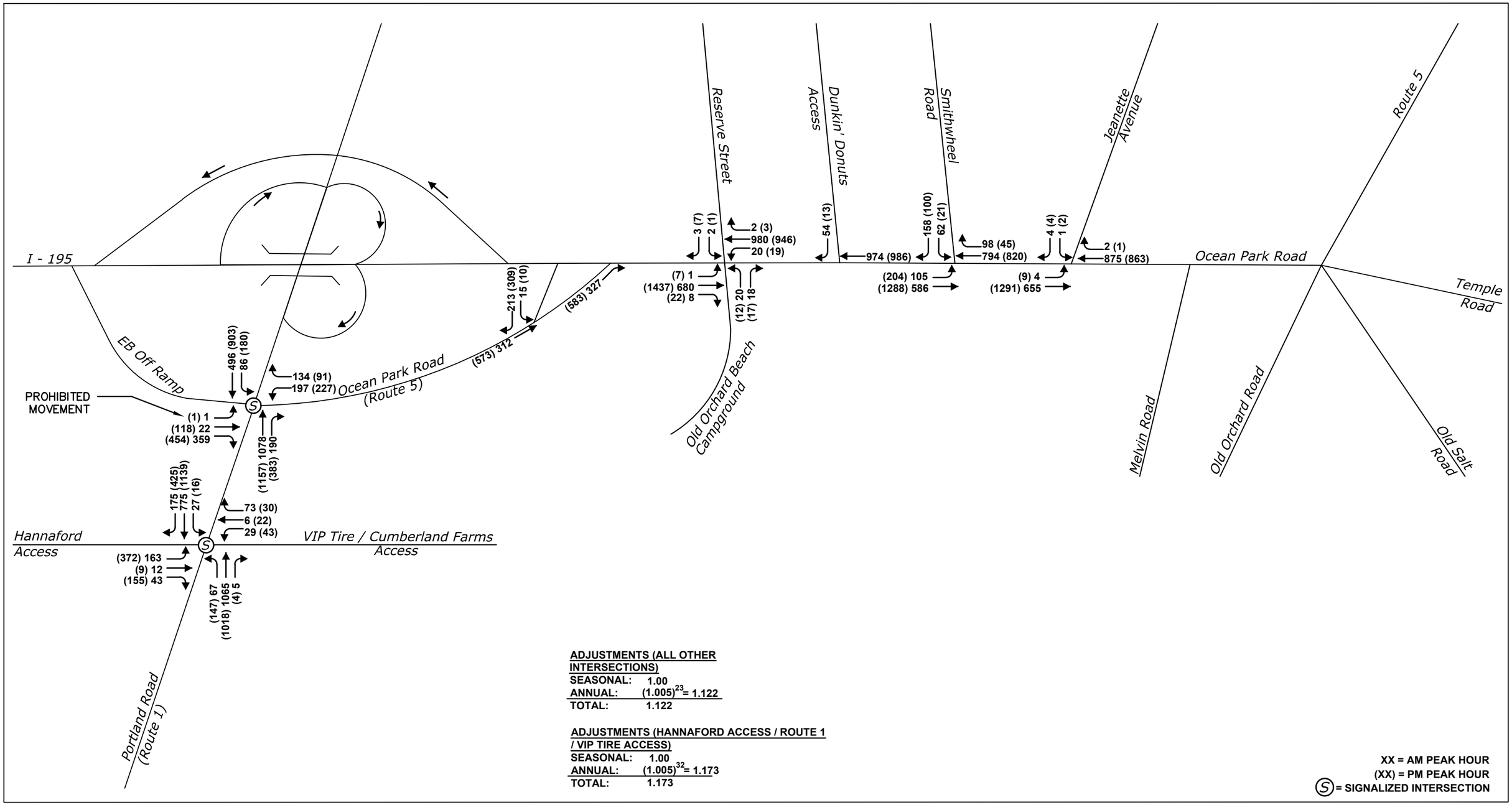
A – 2045 Design Hourly Volumes
B – Computer Printouts – V/C figures
C – Lane Uses

c:\users\don.ettinger.gp\appdata\local\microsoft\windows\inetcache\content.outlook\goxaqos5\alternatives evaluation 06-23-23.doc

Attachment A

2045 Design Hourly Volumes

Ocean Park Road Study - No Build 2045 Design Hourly Volumes



ADJUSTMENTS (ALL OTHER INTERSECTIONS)

SEASONAL:	1.00
ANNUAL:	$(1.005)^{23} = 1.122$
TOTAL:	1.122

ADJUSTMENTS (HANNAFORD ACCESS / ROUTE 1 / VIP TIRE ACCESS)

SEASONAL:	1.00
ANNUAL:	$(1.005)^{32} = 1.173$
TOTAL:	1.173

XX = AM PEAK HOUR
(XX) = PM PEAK HOUR
(S) = SIGNALIZED INTERSECTION

Rev.	Date	Revision

Issued For	Date	By

Design: NJB	Draft: NJB	Date: FEB 2023
Checked: RED	Scale: NTS	Job No.: 4015
File Name: Figure Set.dwg		

This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com
207.772.2515

Drawing Name:	2045 DHV
Project:	Corridor Study Old Orchard Beach, Maine
Client:	Town of Old Orchard Beach 1 Portland Avenue, Old Orchard Beach, Maine 04064

Drawing No. 03

Attachment B

V/C Figures - Computer Printouts

a.

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1957	1919	1969	1919	1960	1945
Vehs Exited	1962	1909	1956	1921	1960	1941
Starting Vehs	40	30	24	28	28	30
Ending Vehs	35	40	37	26	28	32
Travel Distance (mi)	784	773	793	777	796	785
Travel Time (hr)	36.1	34.1	35.3	36.4	36.2	35.6
Total Delay (hr)	7.5	5.8	6.6	8.1	7.2	7.0
Total Stops	649	612	582	606	621	612
Fuel Used (gal)	28.7	27.9	28.5	28.7	28.9	28.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1957	1919	1969	1919	1960	1945
Vehs Exited	1962	1909	1956	1921	1960	1941
Starting Vehs	40	30	24	28	28	30
Ending Vehs	35	40	37	26	28	32
Travel Distance (mi)	784	773	793	777	796	785
Travel Time (hr)	36.1	34.1	35.3	36.4	36.2	35.6
Total Delay (hr)	7.5	5.8	6.6	8.1	7.2	7.0
Total Stops	649	612	582	606	621	612
Fuel Used (gal)	28.7	27.9	28.5	28.7	28.9	28.5

4: OPR & Ocean Park Rd Performance by lane

Lane	EB	WB	NE	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	1.3	0.4	1.1	0.7

5: Ocean Park Rd Performance by lane

Lane	EB	SW	SW	All
Movements Served	T	L	R	
Denied Del/Veh (s)				0.1
Total Del/Veh (s)	0.4	1.4	0.7	0.6

6: Ocean Park Rd & 195 EB Performance by lane

Lane	EB	WB	WB	WB	All
Movements Served	T	L	T	T	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	0.5	3.4	0.7	0.1	1.0

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	All
Movements Served	T	T	TR	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.9	0.6	0.2	0.4

10: Ocean Park Rd & Dunkin Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	T	T	T	R	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	0.2	0.1	1.0	9.7	0.9

13: Ocean Park Rd & Smithwheel Rd Performance by lane

Lane	EB	EB	EB	WB	NB	NB	SB	SB	All
Movements Served	L	T	TR	LTR	LT	R	LT	R	
Denied Del/Veh (s)									0.3
Total Del/Veh (s)	13.7	0.8	0.2	2.0	66.3	5.5	111.0	19.7	8.5

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	LT	T	TR	LR	
Denied Del/Veh (s)					0.5
Total Del/Veh (s)	0.4	0.2	1.1	11.2	0.8

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	EB	All
Movements Served	T	TR	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	0.1	0.1	0.1

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	12.0

Intersection: 4: OPR & Ocean Park Rd

Movement	EB	NE
Directions Served	T	R
Maximum Queue (ft)	98	68
Average Queue (ft)	12	12
95th Queue (ft)	54	44
Link Distance (ft)	335	397
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Ocean Park Rd

Movement	SW	SW
Directions Served	L	R
Maximum Queue (ft)	34	10
Average Queue (ft)	5	0
95th Queue (ft)	24	7
Link Distance (ft)		64
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)	25	
Storage Blk Time (%)	1	
Queuing Penalty (veh)	1	

Intersection: 6: Ocean Park Rd & 195 EB

Movement	WB
Directions Served	L
Maximum Queue (ft)	91
Average Queue (ft)	40
95th Queue (ft)	72
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	185
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Ocean Park Rd & Reserve St

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: Ocean Park Rd & Dunkin

Movement	EB	WB	SB
Directions Served	T	T	R
Maximum Queue (ft)	12	28	64
Average Queue (ft)	0	1	30
95th Queue (ft)	6	12	58
Link Distance (ft)	52	101	154
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Ocean Park Rd & Smithwheel Rd

Movement	EB	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	LTR	LT	R	LT	R
Maximum Queue (ft)	85	95	43	109	55	40	244	194
Average Queue (ft)	42	6	3	23	17	15	84	76
95th Queue (ft)	72	42	29	76	47	41	197	156
Link Distance (ft)		101	101	109	345	345	950	
Upstream Blk Time (%)	0	0	0	0				
Queuing Penalty (veh)	0	1	0	2				
Storage Bay Dist (ft)	80							200
Storage Blk Time (%)	1	0					3	2
Queuing Penalty (veh)	3	0					5	1

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	30	81	18
Average Queue (ft)	2	6	2
95th Queue (ft)	16	44	12
Link Distance (ft)	109		555
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

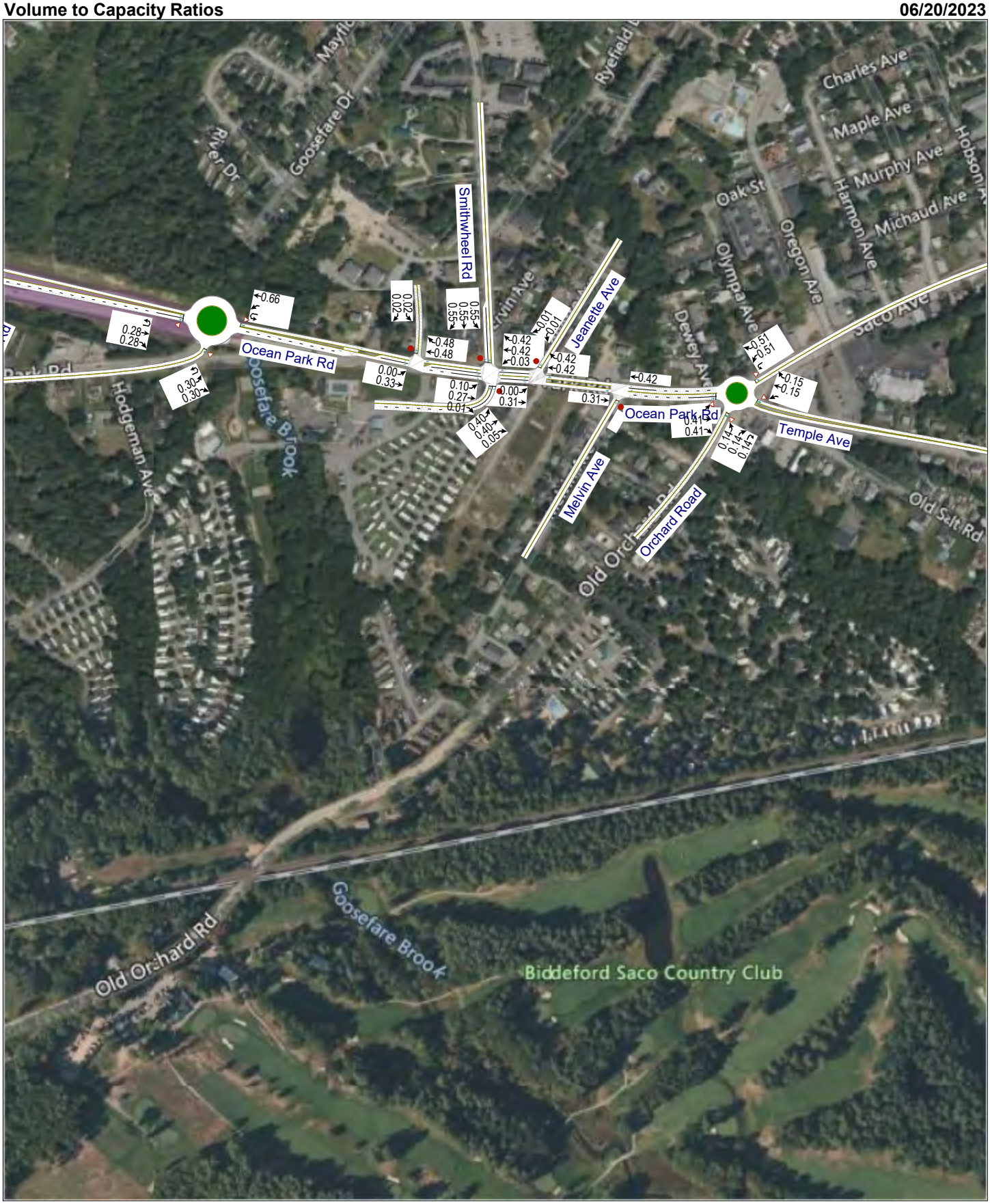
Intersection: 28: Melvin Ave & Ocean Park Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 13

b.


Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Melvin Ave
Orchard Road
Temple Ave
Old Orchard Rd
Goosefare Brook
Biddeford Saco Country Club
Hodgeman Ave
Old Salt Rd
Maple Ave
Murphy Ave
Michaud Ave
Oregon Ave
Olympia Ave
Dewey Ave
Charles Ave
Harmon Ave
Oak St
Goosefare Dr
River Dr

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1732	1793	1759	1738	1775	1758
Vehs Exited	1737	1779	1758	1729	1778	1755
Starting Vehs	56	44	52	54	51	48
Ending Vehs	51	58	53	63	48	56
Travel Distance (mi)	1304	1349	1351	1307	1336	1329
Travel Time (hr)	52.6	54.9	55.1	53.1	54.5	54.0
Total Delay (hr)	5.7	6.5	6.6	6.0	6.4	6.2
Total Stops	543	577	549	548	563	556
Fuel Used (gal)	44.2	46.2	45.9	44.2	45.5	45.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1732	1793	1759	1738	1775	1758
Vehs Exited	1737	1779	1758	1729	1778	1755
Starting Vehs	56	44	52	54	51	48
Ending Vehs	51	58	53	63	48	56
Travel Distance (mi)	1304	1349	1351	1307	1336	1329
Travel Time (hr)	52.6	54.9	55.1	53.1	54.5	54.0
Total Delay (hr)	5.7	6.5	6.6	6.0	6.4	6.2
Total Stops	543	577	549	548	563	556
Fuel Used (gal)	44.2	46.2	45.9	44.2	45.5	45.2

2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave Performance by lane

Lane	EB	EB	WB	NB	SW	All
Movements Served	L	TR	LTR	ULR>	<LR	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	3.3	3.3	5.0	3.6	4.4	4.0

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	2.4	0.2	0.7	10.1	0.5

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										0.3
Total Del/Veh (s)	5.4	0.4	0.0	3.1	0.9	32.7	5.7	34.9	7.6	3.7

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	1.1	0.3	0.5	8.7	0.4

22: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	NB	All
Movements Served	UT	TR	ULT	ULR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	5.3	3.6	4.6	4.0	4.6

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	WB	All
Movements Served	TR	L	T	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.2		0.4	0.5

Total Network Performance

Denied Del/Veh (s)	0.5
Total Del/Veh (s)	11.9

Intersection: 2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave

Movement	EB	EB	WB	NB	SW
Directions Served	L	TR	LTR	ULR>	<LR
Maximum Queue (ft)	62	57	76	58	40
Average Queue (ft)	18	8	26	17	7
95th Queue (ft)	50	34	64	47	30
Link Distance (ft)	320	320	1037	569	1508
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	12	30
Average Queue (ft)	0	4
95th Queue (ft)	6	20
Link Distance (ft)		251
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	69	2	30	32	63	44	100	71
Average Queue (ft)	26	0	8	3	24	19	37	42
95th Queue (ft)	54	2	28	18	53	41	78	68
Link Distance (ft)		202	96	96	444	444	950	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	175							200
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	18	27
Average Queue (ft)	1	3
95th Queue (ft)	11	16
Link Distance (ft)	96	550
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	NB
Directions Served	UT	TR	ULT	ULR
Maximum Queue (ft)	101	23	76	59
Average Queue (ft)	34	1	19	14
95th Queue (ft)	72	10	59	45
Link Distance (ft)	1708	1708	387	1002
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

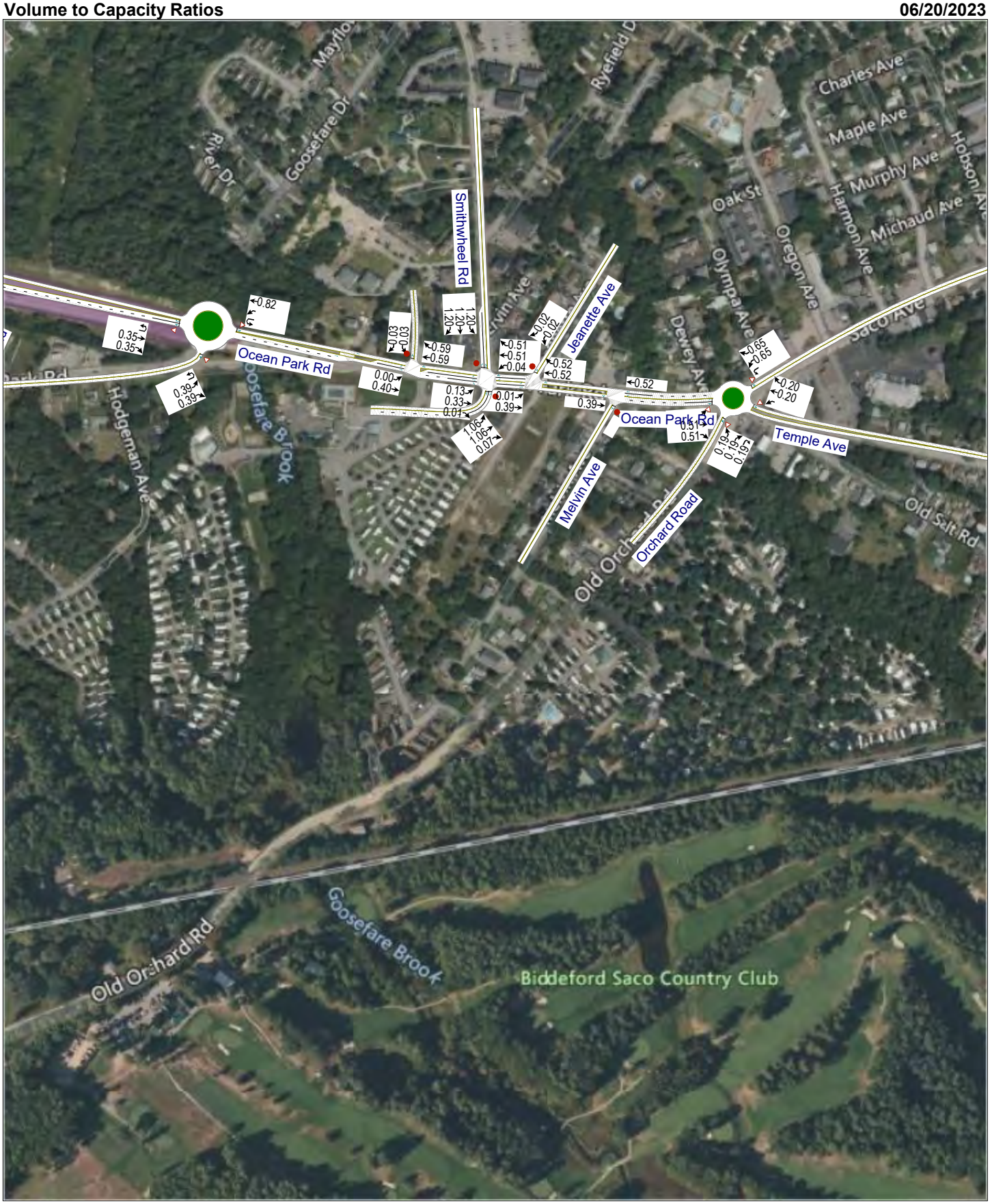
Intersection: 28: Melvin Ave & Ocean Park Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 0

C.


Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Ocean Park Rd
Temple Ave
Melvin Ave
Orchard Road
Old Orchard Rd
Goosefare Brook
Biddeford Saco Country Club
Hodgeman Ave
Goosefare Brook
Old Salt Rd
Charles Ave
Maple Ave
Murphy Ave
Michaud Ave
Oak St
Oregon Ave
Olympia Ave
Dewey Ave
Harmon Ave
Goosefare Dr
Ryefield Dr
0.82
0.35
0.35
0.39
0.39
0.00
0.40
0.03
0.03
0.59
0.59
1.20
1.20
1.20
0.51
0.51
0.04
0.02
0.02
0.52
0.52
0.52
0.39
0.13
0.33
0.01
0.01
0.39
1.06
1.06
0.07
0.51
0.51
0.19
0.19
0.65
0.65
0.20
0.20

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2263	2325	2351	2299	2274	2302
Vehs Exited	2250	2276	2299	2224	2223	2255
Starting Vehs	69	76	63	66	70	67
Ending Vehs	82	125	115	141	121	116
Travel Distance (mi)	1731	1749	1779	1702	1713	1735
Travel Time (hr)	88.9	127.4	120.4	119.0	83.5	107.8
Total Delay (hr)	26.7	64.7	56.5	57.8	21.9	45.5
Total Stops	1306	2509	1866	1853	1437	1796
Fuel Used (gal)	62.7	72.1	71.1	69.0	61.1	67.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2263	2325	2351	2299	2274	2302
Vehs Exited	2250	2276	2299	2224	2223	2255
Starting Vehs	69	76	63	66	70	67
Ending Vehs	82	125	115	141	121	116
Travel Distance (mi)	1731	1749	1779	1702	1713	1735
Travel Time (hr)	88.9	127.4	120.4	119.0	83.5	107.8
Total Delay (hr)	26.7	64.7	56.5	57.8	21.9	45.5
Total Stops	1306	2509	1866	1853	1437	1796
Fuel Used (gal)	62.7	72.1	71.1	69.0	61.1	67.2

2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave Performance by lane

Lane	EB	EB	WB	NB	SW	All
Movements Served	L	TR	LTR	ULR>	<LR	
Denied Del/Veh (s)						0.3
Total Del/Veh (s)	3.8	3.4	6.0	4.2	6.1	5.0

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	LR	
Denied Del/Veh (s)				0.5
Total Del/Veh (s)	0.2	6.3	137.7	4.0

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										0.7
Total Del/Veh (s)	15.7	0.5	0.1	4.4	2.5	240.6	8.4	563.0	60.9	34.5

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	4.7	0.3	2.0	22.8	1.4

22: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	NB	All
Movements Served	UT	TR	ULT	ULR	
Denied Del/Veh (s)					16.4
Total Del/Veh (s)	6.4	4.0	29.5	4.5	19.1

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	WB	All
Movements Served	TR	L	T	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.3	301.6	0.9	0.8

Total Network Performance

Denied Del/Veh (s)	13.8
Total Del/Veh (s)	55.6

Intersection: 2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave

Movement	EB	EB	WB	NB	SW
Directions Served	L	TR	LTR	ULR>	<LR
Maximum Queue (ft)	71	41	92	68	118
Average Queue (ft)	30	10	35	28	21
95th Queue (ft)	67	36	71	57	76
Link Distance (ft)	320	320	1037	569	1508
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Ocean Park Rd & Reserve St

Movement	WB	SB
Directions Served	TR	LR
Maximum Queue (ft)	209	42
Average Queue (ft)	56	7
95th Queue (ft)	193	31
Link Distance (ft)	202	251
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	5	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	115	3	48	110	166	49	741	225
Average Queue (ft)	44	0	12	24	66	21	337	124
95th Queue (ft)	86	2	35	86	175	44	821	264
Link Distance (ft)		202	96	96	444	444	950	
Upstream Blk Time (%)				1			2	
Queuing Penalty (veh)				7			0	
Storage Bay Dist (ft)	175							200
Storage Blk Time (%)							34	12
Queuing Penalty (veh)							54	8

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	WB	SB
Directions Served	L	TR	LR
Maximum Queue (ft)	35	199	31
Average Queue (ft)	2	18	5
95th Queue (ft)	16	111	23
Link Distance (ft)	96	236	550
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		2	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 22: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	B4	NB
Directions Served	UT	TR	ULT	T	ULR
Maximum Queue (ft)	104	65	489	264	86
Average Queue (ft)	50	3	271	79	25
95th Queue (ft)	90	26	605	232	66
Link Distance (ft)	1708	1708	387	185	1002
Upstream Blk Time (%)			41	3	
Queuing Penalty (veh)			411	33	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

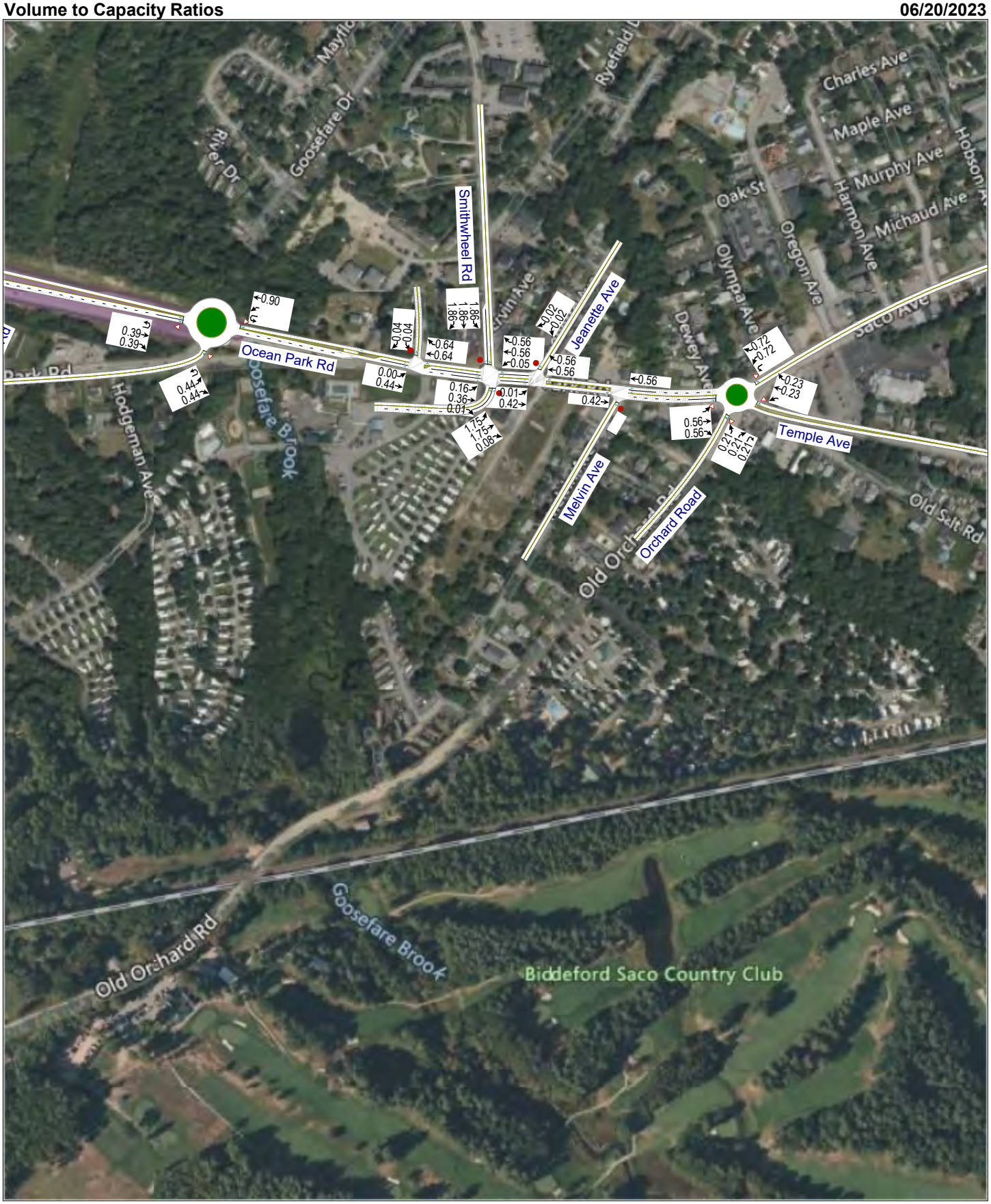
Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	WB
Directions Served	T
Maximum Queue (ft)	65
Average Queue (ft)	4
95th Queue (ft)	35
Link Distance (ft)	320
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 521

d.


Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Melvin Ave
Orchard Road
Temple Ave
Old Orchard Rd
Goosefare Brook
Biddeford Saco Country Club
Hodgeman Ave
Goosefare Dr
Charles Ave
Maple Ave
Murphy Ave
Michaud Ave
Oak St
Oregon Ave
Olympia Ave
Dewey Ave
Old Salt Rd
0.90
0.39
0.44
0.04
0.64
0.00
0.16
0.36
0.01
1.75
0.08
1.86
0.02
0.56
0.05
0.42
0.72
0.23
0.21

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2263	2325	2351	2299	2274	2302
Vehs Exited	2250	2276	2299	2224	2223	2255
Starting Vehs	69	76	63	66	70	67
Ending Vehs	82	125	115	141	121	116
Travel Distance (mi)	1731	1749	1779	1702	1713	1735
Travel Time (hr)	88.9	127.4	120.4	119.0	83.5	107.8
Total Delay (hr)	26.7	64.7	56.5	57.8	21.9	45.5
Total Stops	1306	2509	1866	1853	1437	1796
Fuel Used (gal)	62.7	72.1	71.1	69.0	61.1	67.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2263	2325	2351	2299	2274	2302
Vehs Exited	2250	2276	2299	2224	2223	2255
Starting Vehs	69	76	63	66	70	67
Ending Vehs	82	125	115	141	121	116
Travel Distance (mi)	1731	1749	1779	1702	1713	1735
Travel Time (hr)	88.9	127.4	120.4	119.0	83.5	107.8
Total Delay (hr)	26.7	64.7	56.5	57.8	21.9	45.5
Total Stops	1306	2509	1866	1853	1437	1796
Fuel Used (gal)	62.7	72.1	71.1	69.0	61.1	67.2

2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave Performance by lane

Lane	EB	EB	WB	NB	SW	All
Movements Served	L	TR	LTR	ULR>	<LR	
Denied Del/Veh (s)						0.3
Total Del/Veh (s)	3.8	3.4	6.0	4.2	6.1	5.0

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	WB	SB	All
Movements Served	T	TR	LR	
Denied Del/Veh (s)				0.5
Total Del/Veh (s)	0.2	6.3	137.7	4.0

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										0.7
Total Del/Veh (s)	15.7	0.5	0.1	4.4	2.5	240.6	8.4	563.0	60.9	34.5

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	4.7	0.3	2.0	22.8	1.4

22: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	NB	All
Movements Served	UT	TR	ULT	ULR	
Denied Del/Veh (s)					16.4
Total Del/Veh (s)	6.4	4.0	29.5	4.5	19.1

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	WB	All
Movements Served	TR	L	T	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.3	301.6	0.9	0.8

Total Network Performance

Denied Del/Veh (s)	13.8
Total Del/Veh (s)	55.6

Intersection: 2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave

Movement	EB	EB	WB	NB	SW
Directions Served	L	TR	LTR	ULR>	<LR
Maximum Queue (ft)	71	41	92	68	118
Average Queue (ft)	30	10	35	28	21
95th Queue (ft)	67	36	71	57	76
Link Distance (ft)	320	320	1037	569	1508
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Ocean Park Rd & Reserve St

Movement	WB	SB
Directions Served	TR	LR
Maximum Queue (ft)	209	42
Average Queue (ft)	56	7
95th Queue (ft)	193	31
Link Distance (ft)	202	251
Upstream Blk Time (%)	1	
Queuing Penalty (veh)	5	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	115	3	48	110	166	49	741	225
Average Queue (ft)	44	0	12	24	66	21	337	124
95th Queue (ft)	86	2	35	86	175	44	821	264
Link Distance (ft)		202	96	96	444	444	950	
Upstream Blk Time (%)				1			2	
Queuing Penalty (veh)				7			0	
Storage Bay Dist (ft)	175							200
Storage Blk Time (%)							34	12
Queuing Penalty (veh)							54	8

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	WB	SB
Directions Served	L	TR	LR
Maximum Queue (ft)	35	199	31
Average Queue (ft)	2	18	5
95th Queue (ft)	16	111	23
Link Distance (ft)	96	236	550
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		2	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 22: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	B4	NB
Directions Served	UT	TR	ULT	T	ULR
Maximum Queue (ft)	104	65	489	264	86
Average Queue (ft)	50	3	271	79	25
95th Queue (ft)	90	26	605	232	66
Link Distance (ft)	1708	1708	387	185	1002
Upstream Blk Time (%)			41	3	
Queuing Penalty (veh)			411	33	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	WB
Directions Served	T
Maximum Queue (ft)	65
Average Queue (ft)	4
95th Queue (ft)	35
Link Distance (ft)	320
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 521

e.

Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Dewey Ave
Olympia Ave
Oregon Ave
Harmon Ave
Oak St
Murphy Ave
Michaud Ave
Maple Ave
Charles Ave
Hobson Ave
Saco Ave
Temple Ave
Old Salt Rd
Melvin Ave
Orchard Road
Old Orchard Rd
Goosefare Brook
Hodgeman Ave
Biddeford Saco Country Club
0.46
0.22
0.29
0.02
0.29
0.39
0.02
0.02
0.48
0.48
0.36
0.21
0.57
0.05
0.01
0.01
0.42
0.42
0.42
0.00
0.33
0.17
0.32
0.01
0.00
0.31
0.21
0.11
0.31
0.34
0.15
0.74
0.29
0.19
0.04
0.24
0.42

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1753	1658	1660	1700	1690	1691
Vehs Exited	1761	1649	1674	1696	1669	1688
Starting Vehs	67	59	66	64	57	60
Ending Vehs	59	68	52	68	78	64
Travel Distance (mi)	1563	1461	1485	1514	1504	1506
Travel Time (hr)	71.4	65.6	67.3	69.0	68.0	68.2
Total Delay (hr)	16.0	14.0	14.8	15.6	14.9	15.1
Total Stops	2191	1986	1999	2049	2020	2048
Fuel Used (gal)	54.9	51.0	51.7	53.1	52.1	52.6

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1753	1658	1660	1700	1690	1691
Vehs Exited	1761	1649	1674	1696	1669	1688
Starting Vehs	67	59	66	64	57	60
Ending Vehs	59	68	52	68	78	64
Travel Distance (mi)	1563	1461	1485	1514	1504	1506
Travel Time (hr)	71.4	65.6	67.3	69.0	68.0	68.2
Total Delay (hr)	16.0	14.0	14.8	15.6	14.9	15.1
Total Stops	2191	1986	1999	2049	2020	2048
Fuel Used (gal)	54.9	51.0	51.7	53.1	52.1	52.6

2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	L	TR	LT	R	
Denied Del/Veh (s)									0.3
Total Del/Veh (s)	8.1	5.4	22.0	23.9	30.7	19.9	36.7	9.2	12.5

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	7.3	0.4	1.7	10.1	1.2

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										0.4
Total Del/Veh (s)	8.5	4.5	1.0	5.1	8.8	21.3	5.4	20.8	7.6	7.8

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	19.4	0.9	2.1	12.2	1.6

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	All
Movements Served	TR	T	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	0.3	1.3	0.9

4040: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	WB	NB	NB	All
Movements Served	T	R	L	T	L	R	
Denied Del/Veh (s)							0.7
Total Del/Veh (s)	14.9	2.9	9.3	8.4	20.5	7.3	10.0

Total Network Performance

Denied Del/Veh (s)	1.3
Total Del/Veh (s)	29.7

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	LT	R
Maximum Queue (ft)	196	120	41	118	58	70	67	220
Average Queue (ft)	73	41	9	57	16	26	17	90
95th Queue (ft)	148	93	29	102	43	59	47	175
Link Distance (ft)	348	348		1270	966		2075	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			130			95		295
Storage Blk Time (%)				0	0	0		
Queuing Penalty (veh)				0	0	0		

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	6	30
Average Queue (ft)	0	3
95th Queue (ft)	6	18
Link Distance (ft)		252
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	63	160	22	46	177	50	42	69	92
Average Queue (ft)	27	67	3	14	120	17	12	31	41
95th Queue (ft)	55	131	14	42	188	43	32	61	73
Link Distance (ft)		198	198		95	419	419	950	
Upstream Blk Time (%)		0			10				
Queuing Penalty (veh)		0			67				
Storage Bay Dist (ft)	200			25					200
Storage Blk Time (%)		0		3	27				
Queuing Penalty (veh)		0		23	9				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	WB	SB
Directions Served	L	TR	LR
Maximum Queue (ft)	18	145	18
Average Queue (ft)	2	15	2
95th Queue (ft)	14	75	13
Link Distance (ft)		251	548
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	25		
Storage Blk Time (%)	1		
Queuing Penalty (veh)	5		

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4040: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	182	36	130	254	64	121
Average Queue (ft)	92	8	52	120	21	55
95th Queue (ft)	157	30	94	210	50	100
Link Distance (ft)	2073	2073		499	963	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			400			250
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 104

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Phase	2	4	5	6	8
Movement(s) Served	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	42.0	21.0	22.0	14.0	21.0
Minimum Green (s)	4.0	4.0	5.0	4.0	4.0
Recall	C-Min	None	None	None	None
Avg. Green (s)	39.3	12.6	21.2	11.1	11.3
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	5	32	2	9	11
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	95	4	17	4	4
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	5.0	34.0	18.0	5.0	34.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None	None	None
Avg. Green (s)	6.1	45.5	7.5	7.9	26.3	7.5
g/C Ratio	-0.01	-0.01	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	83	12	12	25	0	12
Cycles @ Minimum (%)	6	0	5	21	0	5
Cycles Maxed Out (%)	0	88	0	9	20	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 4040: 195 EB/Ocean Park Rd

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	NBL
Maximum Green (s)	6.0	31.0	43.0	20.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None
Avg. Green (s)	10.1	16.3	32.7	11.4
g/C Ratio	-0.01	NA	-0.01	-0.01
Cycles Skipped (%)	8	0	2	2
Cycles @ Minimum (%)	3	3	0	0
Cycles Maxed Out (%)	15	100	11	3
Cycles with Peds (%)	0	0	0	0

Controller Summary
Average Cycle Length (s): NA

Number of Complete Cycles : 0

f.

Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Melvin Ave
Orchard Road
Temple Ave
Old Orchard Rd
Goosefare Brook
Biddeford Saco Country Club
Hodgeman Ave
Goosefare Dr
Charles Ave
Maple Ave
Murphy Ave
Michaud Ave
Oak St
Olympia Ave
Oregon Ave
Dewey Ave
Old Salt Rd

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2250	2366	2294	2276	2313	2300
Vehs Exited	2247	2362	2313	2271	2300	2298
Starting Vehs	98	86	103	100	91	95
Ending Vehs	101	90	84	105	104	97
Travel Distance (mi)	2014	2119	2049	2023	2064	2054
Travel Time (hr)	100.9	107.1	103.7	105.4	104.1	104.3
Total Delay (hr)	29.8	32.4	31.6	33.8	31.0	31.7
Total Stops	3008	3132	3060	2999	3059	3050
Fuel Used (gal)	72.5	76.4	73.5	73.8	74.2	74.1

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2250	2366	2294	2276	2313	2300
Vehs Exited	2247	2362	2313	2271	2300	2298
Starting Vehs	98	86	103	100	91	95
Ending Vehs	101	90	84	105	104	97
Travel Distance (mi)	2014	2119	2049	2023	2064	2054
Travel Time (hr)	100.9	107.1	103.7	105.4	104.1	104.3
Total Delay (hr)	29.8	32.4	31.6	33.8	31.0	31.7
Total Stops	3008	3132	3060	2999	3059	3050
Fuel Used (gal)	72.5	76.4	73.5	73.8	74.2	74.1

2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	L	TR	LT	R	
Denied Del/Veh (s)									0.3
Total Del/Veh (s)	13.1	7.5	37.4	37.0	68.1	25.8	49.3	10.8	18.2

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	5.6	0.7	2.0	23.2	1.5

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										2.1
Total Del/Veh (s)	20.5	5.5	1.0	6.6	12.9	34.5	6.7	33.5	16.3	12.2

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	72.5	1.0	8.3	149.3	5.9

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	All
Movements Served	TR	T	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	0.5	2.8	1.8

4040: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	WB	NB	NB	All
Movements Served	T	R	L	T	L	R	
Denied Del/Veh (s)							0.7
Total Del/Veh (s)	21.9	3.6	12.7	11.7	27.1	10.8	14.3

Total Network Performance

Denied Del/Veh (s)	2.8
Total Del/Veh (s)	45.0

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	LT	R
Maximum Queue (ft)	262	148	49	178	134	123	102	297
Average Queue (ft)	119	57	13	95	39	41	29	149
95th Queue (ft)	220	123	37	152	100	95	73	270
Link Distance (ft)	348	348		1270	966		2075	
Upstream Blk Time (%)	0							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)			130			95		295
Storage Blk Time (%)				4	3	1		0
Queuing Penalty (veh)				1	3	0		0

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	SB
Directions Served	L	T	LR
Maximum Queue (ft)	12	8	31
Average Queue (ft)	1	0	5
95th Queue (ft)	8	6	22
Link Distance (ft)		224	252
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	123	240	26	48	184	74	46	89	155
Average Queue (ft)	49	92	4	19	169	26	15	42	69
95th Queue (ft)	97	183	18	46	203	57	35	77	127
Link Distance (ft)		198	198		95	419	419	950	
Upstream Blk Time (%)	0	1			27				
Queuing Penalty (veh)	0	2			241				
Storage Bay Dist (ft)	200			25					200
Storage Blk Time (%)	0	1		7	34				0
Queuing Penalty (veh)	0	1		57	15				0

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	34	42	304	39
Average Queue (ft)	4	2	126	6
95th Queue (ft)	21	20	292	25
Link Distance (ft)		95	251	548
Upstream Blk Time (%)		0	3	
Queuing Penalty (veh)		0	27	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	7	0		
Queuing Penalty (veh)	46	0		

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB	WB
Directions Served	TR	T
Maximum Queue (ft)	6	239
Average Queue (ft)	0	22
95th Queue (ft)	4	123
Link Distance (ft)	251	348
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		2
Queuing Penalty (veh)		0

Intersection: 4040: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	292	31	225	388	104	203
Average Queue (ft)	141	10	74	191	38	85
95th Queue (ft)	239	32	146	322	77	150
Link Distance (ft)	2073	2073		499	963	
Upstream Blk Time (%)				0		
Queuing Penalty (veh)				0		
Storage Bay Dist (ft)			400			250
Storage Blk Time (%)				0		0
Queuing Penalty (veh)				0		0

Network Summary

Network wide Queuing Penalty: 394

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Phase	2	4	5	6	8
Movement(s) Served	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	57.0	21.0	34.0	17.0	21.0
Minimum Green (s)	4.0	4.0	5.0	4.0	4.0
Recall	C-Min	None	None	None	None
Avg. Green (s)	53.0	21.6	32.1	14.4	19.5
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	2	20	4	2	5
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	98	28	28	12	26
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	5.0	49.0	18.0	5.0	49.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None	None	None
Avg. Green (s)	6.0	65.0	11.1	8.3	46.6	11.1
g/C Ratio	-0.01	-0.01	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	82	5	7	20	0	7
Cycles @ Minimum (%)	0	0	0	12	0	0
Cycles Maxed Out (%)	0	95	5	15	52	5
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 4040: 195 EB/Ocean Park Rd

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	NBL
Maximum Green (s)	8.0	44.0	58.0	20.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None
Avg. Green (s)	12.9	24.9	42.9	16.5
g/C Ratio	-0.01	-0.01	-0.01	NA
Cycles Skipped (%)	6	2	2	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	16	98	8	10
Cycles with Peds (%)	0	0	0	0

Controller Summary
Average Cycle Length (s): NA

Number of Complete Cycles : 0

g.

Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Dewey Ave
Olympia Ave
Oregon Ave
Oak St
Harmon Ave
H Murphy Ave
Michaud Ave
Maple Ave
Charles Ave
Goosefare Dr
Ryefield Dr
Irvin Ave
Hodgeman Ave
Goosefare Brook
Melvin Ave
Orchard Road
Temple Ave
Old Salt Rd
Old Orchard Rd
Biddeford Saco Country Club
0.60
0.33
0.38
0.03
0.38
0.47
0.04
0.04
0.64
0.64
0.44
0.35
0.00
0.44
0.41
0.48
0.02
0.01
0.42
0.26
0.14
0.86
0.09
0.02
0.02
0.56
0.56
0.56
0.42
0.79
0.36
0.36
0.08
0.43
0.20
0.30
0.51

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2251	2367	2294	2276	2313	2300
Vehs Exited	2263	2360	2318	2275	2303	2304
Starting Vehs	102	87	103	99	91	97
Ending Vehs	90	94	79	100	101	88
Travel Distance (mi)	2019	2115	2053	2024	2063	2055
Travel Time (hr)	99.3	110.4	101.2	104.3	105.0	104.0
Total Delay (hr)	28.0	35.8	28.8	32.8	31.9	31.5
Total Stops	2926	3373	2943	3112	3164	3104
Fuel Used (gal)	72.2	77.0	72.9	73.6	74.4	74.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2251	2367	2294	2276	2313	2300
Vehs Exited	2263	2360	2318	2275	2303	2304
Starting Vehs	102	87	103	99	91	97
Ending Vehs	90	94	79	100	101	88
Travel Distance (mi)	2019	2115	2053	2024	2063	2055
Travel Time (hr)	99.3	110.4	101.2	104.3	105.0	104.0
Total Delay (hr)	28.0	35.8	28.8	32.8	31.9	31.5
Total Stops	2926	3373	2943	3112	3164	3104
Fuel Used (gal)	72.2	77.0	72.9	73.6	74.4	74.0

2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	L	TR	LT	R	
Denied Del/Veh (s)									0.3
Total Del/Veh (s)	11.5	6.5	26.5	34.6	61.3	22.9	49.7	11.1	17.0

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	4.1	1.0	2.1	26.0	1.7

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										1.8
Total Del/Veh (s)	20.2	6.2	0.8	6.8	13.2	31.9	8.0	31.6	15.9	12.4

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	80.5	1.1	8.8	198.0	6.4

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	All
Movements Served	TR	T	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	0.5	3.1	2.0

4040: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	WB	NB	NB	All
Movements Served	T	R	L	T	L	R	
Denied Del/Veh (s)							0.7
Total Del/Veh (s)	21.2	4.2	12.2	12.4	23.9	11.1	14.3

Total Network Performance

Denied Del/Veh (s)	2.5
Total Del/Veh (s)	44.9

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	LT	R
Maximum Queue (ft)	258	141	41	195	134	136	76	306
Average Queue (ft)	104	52	12	90	37	40	27	137
95th Queue (ft)	197	115	34	154	94	93	64	264
Link Distance (ft)	348	348		1270	966		2075	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			130			95		295
Storage Blk Time (%)				3	2	1		1
Queuing Penalty (veh)				1	2	0		0

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	B3	SB
Directions Served	L	T	T	LR
Maximum Queue (ft)	12	59	10	39
Average Queue (ft)	1	4	1	5
95th Queue (ft)	7	60	9	23
Link Distance (ft)		224	499	252
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		3		
Storage Bay Dist (ft)	100			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	159	237	22	50	192	63	49	88	136
Average Queue (ft)	51	97	3	19	169	25	16	40	67
95th Queue (ft)	105	192	15	49	207	55	38	78	121
Link Distance (ft)		198	198		95	419	419	950	
Upstream Blk Time (%)	0	1			28				
Queuing Penalty (veh)	0	4			249				
Storage Bay Dist (ft)	200			25					200
Storage Blk Time (%)	0	1		7	36				0
Queuing Penalty (veh)	0	1		60	15				0

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	36	43	302	39
Average Queue (ft)	4	3	123	7
95th Queue (ft)	21	29	285	29
Link Distance (ft)		95	251	548
Upstream Blk Time (%)		1	4	
Queuing Penalty (veh)		5	39	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	7	0		
Queuing Penalty (veh)	49	0		

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	WB
Directions Served	T
Maximum Queue (ft)	234
Average Queue (ft)	28
95th Queue (ft)	154
Link Distance (ft)	348
Upstream Blk Time (%)	0
Queuing Penalty (veh)	1
Storage Bay Dist (ft)	
Storage Blk Time (%)	3
Queuing Penalty (veh)	0

Intersection: 4040: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	B3	NB	NB
Directions Served	T	R	L	T	T	L	R
Maximum Queue (ft)	305	35	199	424	12	90	191
Average Queue (ft)	140	10	71	196	1	35	90
95th Queue (ft)	243	34	137	349	12	72	156
Link Distance (ft)	2073	2073		499	224	963	
Upstream Blk Time (%)				0			
Queuing Penalty (veh)				1			
Storage Bay Dist (ft)			400				250
Storage Blk Time (%)				0			0
Queuing Penalty (veh)				1			0

Network Summary

Network wide Queuing Penalty: 433

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Phase	2	4	5	6	8
Movement(s) Served	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	47.0	21.0	27.0	14.0	21.0
Minimum Green (s)	4.0	4.0	5.0	4.0	4.0
Recall	C-Min	None	None	None	None
Avg. Green (s)	48.6	19.7	28.5	13.1	17.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	2	24	6	4	9
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	98	33	41	28	32
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	5.0	39.0	18.0	5.0	39.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None	None	None
Avg. Green (s)	6.5	62.7	10.7	8.9	41.2	10.7
g/C Ratio	-0.01	-0.01	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	84	11	11	24	0	11
Cycles @ Minimum (%)	0	0	0	11	0	0
Cycles Maxed Out (%)	0	89	4	16	62	4
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 4040: 195 EB/Ocean Park Rd

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	NBL
Maximum Green (s)	9.0	35.0	50.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None
Avg. Green (s)	12.2	24.3	42.2	17.2
g/C Ratio	-0.01	-0.01	-0.01	NA
Cycles Skipped (%)	6	4	4	0
Cycles @ Minimum (%)	2	0	0	0
Cycles Maxed Out (%)	18	96	17	12
Cycles with Peds (%)	0	0	0	0

Controller Summary
Average Cycle Length (s): NA

Number of Complete Cycles : 0

h.

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2614	2663	2657	2579	2701	2643
Vehs Exited	2630	2659	2624	2566	2630	2620
Starting Vehs	65	62	45	47	41	49
Ending Vehs	49	66	78	60	112	74
Travel Distance (mi)	1077	1089	1082	1058	1092	1080
Travel Time (hr)	59.0	77.8	60.9	62.8	71.6	66.4
Total Delay (hr)	20.0	38.5	21.8	24.7	32.2	27.4
Total Stops	1155	1218	1192	1178	1317	1211
Fuel Used (gal)	41.7	46.5	42.1	41.8	44.7	43.3

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2614	2663	2657	2579	2701	2643
Vehs Exited	2630	2659	2624	2566	2630	2620
Starting Vehs	65	62	45	47	41	49
Ending Vehs	49	66	78	60	112	74
Travel Distance (mi)	1077	1089	1082	1058	1092	1080
Travel Time (hr)	59.0	77.8	60.9	62.8	71.6	66.4
Total Delay (hr)	20.0	38.5	21.8	24.7	32.2	27.4
Total Stops	1155	1218	1192	1178	1317	1211
Fuel Used (gal)	41.7	46.5	42.1	41.8	44.7	43.3

4: OPR & Ocean Park Rd Performance by lane

Lane	EB	WB	NE	All
Movements Served	T	T	R	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	8.3	0.5	9.9	5.6

5: Ocean Park Rd Performance by lane

Lane	EB	SW	SW	All
Movements Served	T	L	R	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	0.9	4.5	1.2	1.1

6: Ocean Park Rd & 195 EB Performance by lane

Lane	EB	WB	WB	WB	All
Movements Served	T	L	T	T	
Denied Del/Veh (s)					0.4
Total Del/Veh (s)	3.3	13.5	1.5	0.2	4.3

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	EB	WB	All
Movements Served	L	T	T	TR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	10.1	2.3	1.1	0.2	1.1

10: Ocean Park Rd & Dunkin Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	T	T	T	R	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	0.6	0.2	1.0	11.7	0.7

13: Ocean Park Rd & Smithwheel Rd Performance by lane

Lane	EB	EB	EB	WB	NB	NB	SB	SB	All
Movements Served	L	T	TR	LTR	LT	R	LT	R	
Denied Del/Veh (s)									4.2
Total Del/Veh (s)	14.5	1.6	0.5	4.0	1040.9	105.1	509.9	22.4	19.7

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	LT	T	TR	LR	
Denied Del/Veh (s)					1.9
Total Del/Veh (s)	0.5	0.3	2.6	31.9	1.4

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	EB	All
Movements Served	T	TR	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	0.1	0.1	0.1

Total Network Performance

Denied Del/Veh (s)	6.0
Total Del/Veh (s)	30.8

Intersection: 4: OPR & Ocean Park Rd

Movement	EB	NE
Directions Served	T	R
Maximum Queue (ft)	346	345
Average Queue (ft)	128	122
95th Queue (ft)	333	284
Link Distance (ft)	335	397
Upstream Blk Time (%)	3	0
Queuing Penalty (veh)	23	1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Ocean Park Rd

Movement	EB	SW
Directions Served	T	L
Maximum Queue (ft)	21	30
Average Queue (ft)	1	4
95th Queue (ft)	10	21
Link Distance (ft)	810	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		25
Storage Blk Time (%)		1
Queuing Penalty (veh)		3

Intersection: 6: Ocean Park Rd & 195 EB

Movement	EB	WB	WB
Directions Served	T	L	T
Maximum Queue (ft)	364	201	106
Average Queue (ft)	37	93	4
95th Queue (ft)	200	164	54
Link Distance (ft)	866		335
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		185	
Storage Blk Time (%)		2	
Queuing Penalty (veh)		5	

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	EB
Directions Served	L	T	T
Maximum Queue (ft)	35	84	76
Average Queue (ft)	4	5	3
95th Queue (ft)	21	40	35
Link Distance (ft)		254	254
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	300		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Ocean Park Rd & Dunkin

Movement	EB	WB	SB
Directions Served	T	T	R
Maximum Queue (ft)	53	11	39
Average Queue (ft)	6	0	12
95th Queue (ft)	35	8	36
Link Distance (ft)	52	101	154
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	11		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Ocean Park Rd & Smithwheel Rd

Movement	EB	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	LTR	LT	R	LT	R
Maximum Queue (ft)	98	136	101	128	253	215	267	180
Average Queue (ft)	58	32	16	58	160	70	97	60
95th Queue (ft)	91	111	74	139	299	237	278	150
Link Distance (ft)		101	101	110	243	243	950	
Upstream Blk Time (%)	2	3	0	6	36	21		
Queuing Penalty (veh)	0	22	2	53	0	0		
Storage Bay Dist (ft)	80							200
Storage Blk Time (%)	5	2					10	0
Queuing Penalty (veh)	35	4					10	0

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	60	127	23
Average Queue (ft)	6	37	4
95th Queue (ft)	33	122	17
Link Distance (ft)	110		555
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

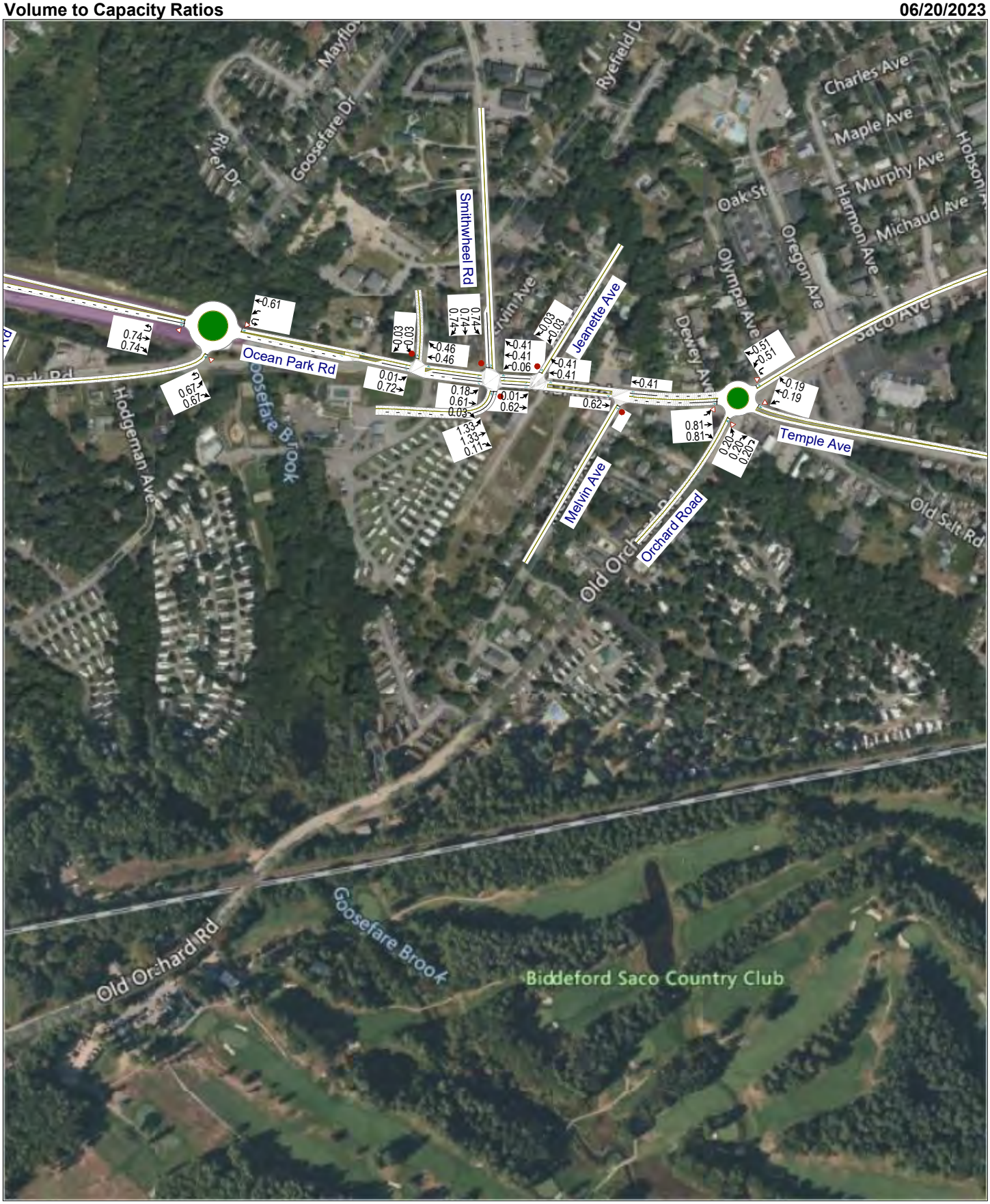
Intersection: 28: Melvin Ave & Ocean Park Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 168

i.


Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Temple Ave
Orchard Road
Melvin Ave
Old Orchard Rd
Goosefare Brook
Biddeford Saco Country Club
Hodgeman Ave
Goosefare Dr
Charles Ave
Maple Ave
Murphy Ave
Michaud Ave
Oak St
Oregon Ave
Olympia Ave
Dewey Ave
Harmon Ave
Saco Ave
Old Salt Rd
0.61
0.74
0.74
0.67
0.67
0.03
0.03
0.46
0.46
0.74
0.74
0.01
0.72
0.18
0.61
0.03
1.33
1.33
0.11
0.01
0.62
0.41
0.41
0.41
0.06
0.03
0.03
0.41
0.62
0.81
0.81
0.20
0.20
0.20
0.51
0.51
0.19
0.19

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2228	2280	2284	2279	2260	2265
Vehs Exited	2236	2278	2272	2273	2261	2263
Starting Vehs	82	61	69	77	66	69
Ending Vehs	74	63	81	83	65	70
Travel Distance (mi)	1783	1800	1802	1809	1806	1800
Travel Time (hr)	74.8	75.8	74.6	76.9	76.1	75.7
Total Delay (hr)	11.1	11.7	10.5	12.5	11.7	11.5
Total Stops	1043	1076	1036	1107	1032	1058
Fuel Used (gal)	61.8	62.3	61.6	62.6	62.5	62.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2228	2280	2284	2279	2260	2265
Vehs Exited	2236	2278	2272	2273	2261	2263
Starting Vehs	82	61	69	77	66	69
Ending Vehs	74	63	81	83	65	70
Travel Distance (mi)	1783	1800	1802	1809	1806	1800
Travel Time (hr)	74.8	75.8	74.6	76.9	76.1	75.7
Total Delay (hr)	11.1	11.7	10.5	12.5	11.7	11.5
Total Stops	1043	1076	1036	1107	1032	1058
Fuel Used (gal)	61.8	62.3	61.6	62.6	62.5	62.2

2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave Performance by lane

Lane	EB	EB	WB	NB	SW	All
Movements Served	L	TR	LTR	ULR>	<LR	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	5.5	3.6	5.9	4.4	4.7	4.8

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	4.5	0.4	0.6	6.7	0.5

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										0.1
Total Del/Veh (s)	5.8	0.6	0.1	9.5	0.6	152.2	15.9	134.5	9.0	5.1

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	1.2	0.3	0.5	9.6	0.4

22: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	NB	All
Movements Served	UT	TR	ULT	ULR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	11.2	6.1	4.7	5.3	7.0

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	WB	All
Movements Served	TR	L	T	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.5		0.4	0.6

Total Network Performance

Denied Del/Veh (s)	0.4
Total Del/Veh (s)	17.3

Intersection: 2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave

Movement	EB	EB	WB	NB	SW
Directions Served	L	TR	LTR	ULR>	<LR
Maximum Queue (ft)	157	62	83	62	76
Average Queue (ft)	50	14	31	25	12
95th Queue (ft)	121	47	63	55	46
Link Distance (ft)	320	320	1037	569	1508
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	WB	SB
Directions Served	L	TR	LR
Maximum Queue (ft)	31	4	30
Average Queue (ft)	3	0	6
95th Queue (ft)	18	3	25
Link Distance (ft)		202	251
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	78	2	46	26	122	56	79	92
Average Queue (ft)	37	0	18	2	40	19	24	35
95th Queue (ft)	64	1	41	14	102	45	66	66
Link Distance (ft)		202	96	96	444	444	950	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	175							200
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	31	27
Average Queue (ft)	4	4
95th Queue (ft)	22	20
Link Distance (ft)	96	550
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	NB
Directions Served	UT	TR	ULT	ULR
Maximum Queue (ft)	206	169	112	138
Average Queue (ft)	94	27	21	33
95th Queue (ft)	166	110	69	87
Link Distance (ft)	1708	1708	387	1002
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

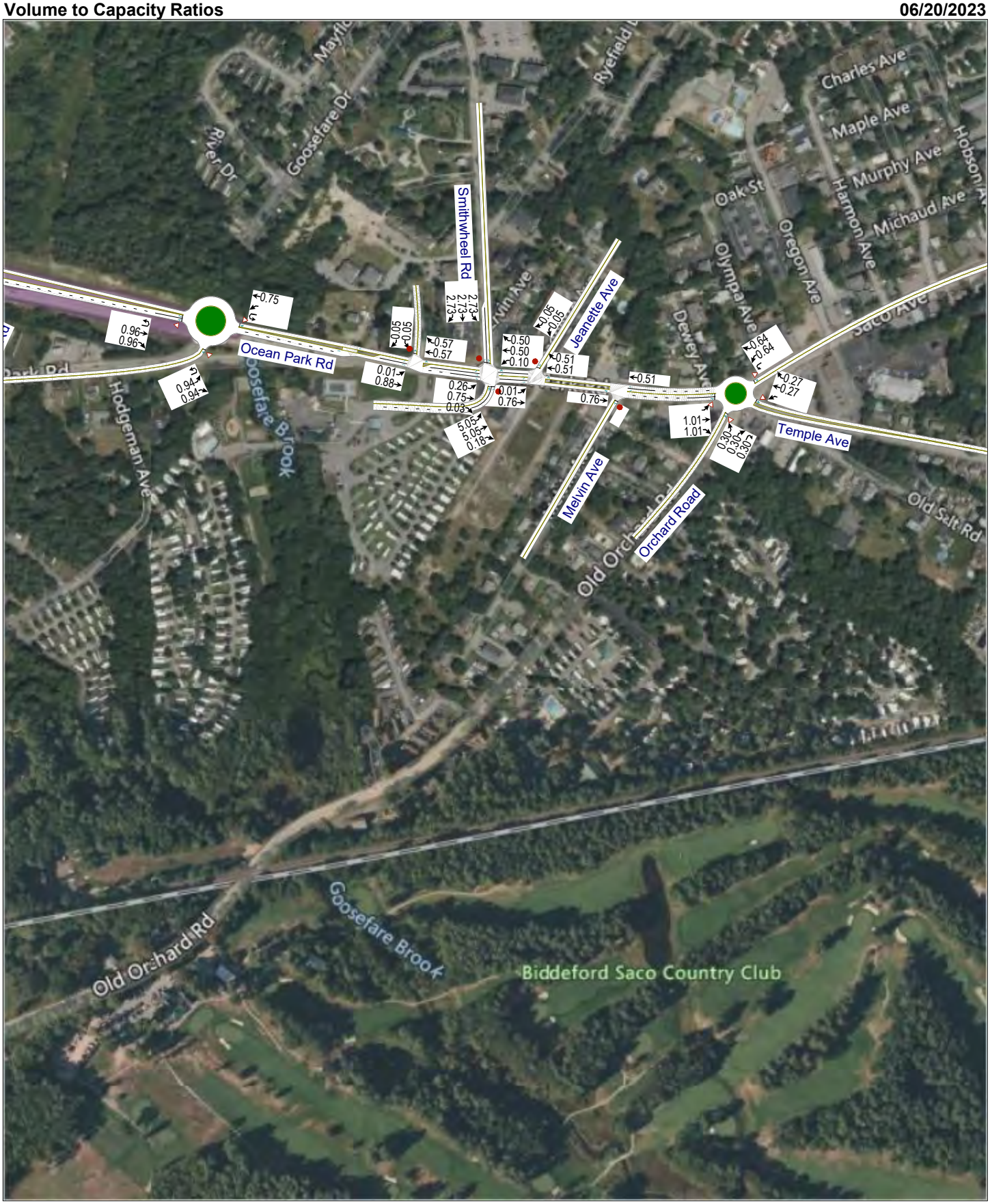
Intersection: 28: Melvin Ave & Ocean Park Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 0

j.


Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Melvin Ave
Orchard Road
Temple Ave
Goosefare Brook
Hodgeman Ave
Old Orchard Rd
Biddeford Saco Country Club
Charles Ave
Maple Ave
Murphy Ave
Michaud Ave
Oak St
Oregon Ave
Harmon Ave
Olympia Ave
Dewey Ave
Old Salt Rd
0.75
0.96
0.94
0.05
0.57
2.73
0.50
0.10
0.51
0.01
0.88
0.26
0.03
0.76
0.18
1.01
0.30
0.64
0.27

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3031	2949	2954	2929	3004	2975
Vehs Exited	2965	2860	2898	2846	2908	2896
Starting Vehs	113	97	131	93	118	108
Ending Vehs	179	186	187	176	214	188
Travel Distance (mi)	2378	2299	2307	2297	2355	2327
Travel Time (hr)	142.5	171.8	153.7	140.8	166.5	155.1
Total Delay (hr)	57.9	90.0	71.6	59.1	82.8	72.3
Total Stops	3351	2656	3250	2584	3564	3080
Fuel Used (gal)	91.8	97.1	92.9	89.3	96.6	93.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	3031	2949	2954	2929	3004	2975
Vehs Exited	2965	2860	2898	2846	2908	2896
Starting Vehs	113	97	131	93	118	108
Ending Vehs	179	186	187	176	214	188
Travel Distance (mi)	2378	2299	2307	2297	2355	2327
Travel Time (hr)	142.5	171.8	153.7	140.8	166.5	155.1
Total Delay (hr)	57.9	90.0	71.6	59.1	82.8	72.3
Total Stops	3351	2656	3250	2584	3564	3080
Fuel Used (gal)	91.8	97.1	92.9	89.3	96.6	93.5

2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave Performance by lane

Lane	EB	EB	WB	NB	SW	All
Movements Served	L	TR	LTR	ULR>	<LR	
Denied Del/Veh (s)						0.3
Total Del/Veh (s)	26.4	4.5	7.4	5.5	5.7	12.5

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	6.2	1.0	0.8	15.2	1.0

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										9.1
Total Del/Veh (s)	10.4	1.5	0.2	29.4	0.9	2139.6	193.7	1298.6	21.4	48.7

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	2.3	0.9	0.7	45.6	0.9

22: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	NB	All
Movements Served	UT	TR	ULT	ULR	
Denied Del/Veh (s)					1.6
Total Del/Veh (s)	42.7	22.8	15.1	8.7	21.9

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	WB	All
Movements Served	TR	L	T	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	3.2	345.1	0.6	2.3

Total Network Performance

Denied Del/Veh (s)	9.4
Total Del/Veh (s)	75.2

Intersection: 2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave

Movement	EB	EB	WB	NB	SW
Directions Served	L	TR	LTR	ULR>	<LR
Maximum Queue (ft)	322	73	79	82	95
Average Queue (ft)	207	27	41	36	18
95th Queue (ft)	369	66	71	68	63
Link Distance (ft)	320	320	1037	569	1508
Upstream Blk Time (%)	1				
Queuing Penalty (veh)	5				
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	B4	B4	SB
Directions Served	L	T	T		LR
Maximum Queue (ft)	31	72	430	243	30
Average Queue (ft)	4	5	28	13	6
95th Queue (ft)	20	56	198	132	26
Link Distance (ft)		185	387	387	251
Upstream Blk Time (%)		0	1	0	
Queuing Penalty (veh)		2	5	0	
Storage Bay Dist (ft)	100				
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	132	109	16	82	34	454	450	894	225
Average Queue (ft)	55	9	1	29	5	313	179	378	59
95th Queue (ft)	102	72	8	65	21	536	509	939	184
Link Distance (ft)		202	202	96	96	444	444	950	
Upstream Blk Time (%)		0		0		42	35	13	
Queuing Penalty (veh)		1		2		0	0	0	
Storage Bay Dist (ft)	175								200
Storage Blk Time (%)		0						52	1
Queuing Penalty (veh)		1						52	0

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	35	62	43	27
Average Queue (ft)	6	6	1	4
95th Queue (ft)	27	40	30	19
Link Distance (ft)	96	96	236	550
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 22: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	B4	NB
Directions Served	UT	TR	ULT	T	ULR
Maximum Queue (ft)	507	483	362	74	207
Average Queue (ft)	273	233	125	7	73
95th Queue (ft)	511	487	383	59	155
Link Distance (ft)	1708	1708	387	185	1002
Upstream Blk Time (%)			7	0	
Queuing Penalty (veh)			67	1	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

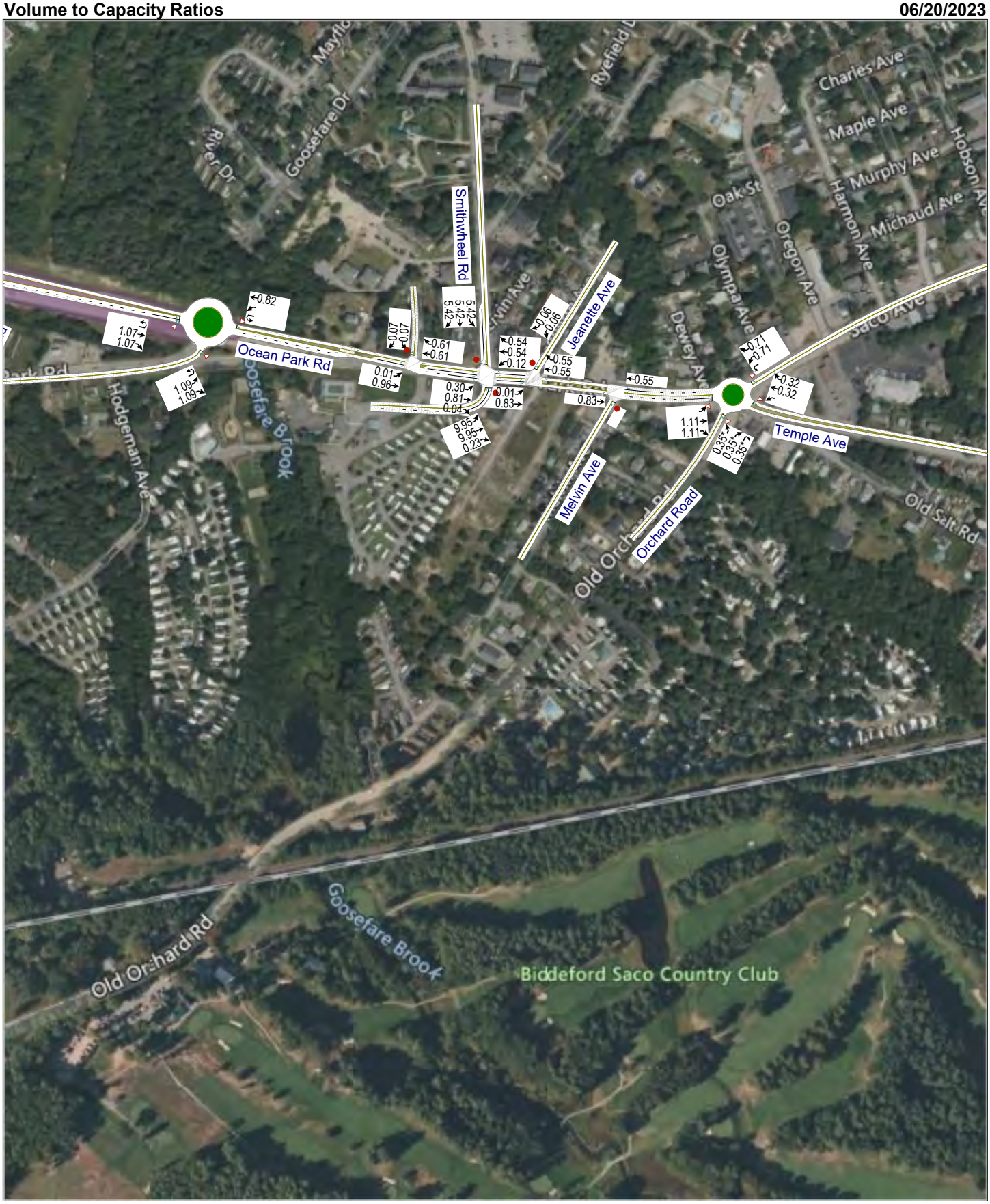
Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB
Directions Served	TR
Maximum Queue (ft)	203
Average Queue (ft)	36
95th Queue (ft)	151
Link Distance (ft)	236
Upstream Blk Time (%)	0
Queuing Penalty (veh)	1
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 136

k.


Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Melvin Ave
Orchard Road
Temple Ave
Old Orchard Rd
Goosefare Brook
Biddeford Saco Country Club
Hodgeman Ave
Goosefare Dr
Charles Ave
Maple Ave
Murphy Ave
Michaud Ave
Oak St
Oregon Ave
Olympia Ave
Dewey Ave
Old Salt Rd
0.82
1.07
1.07
1.09
1.09
0.07
0.07
0.61
0.61
5.42
5.42
0.06
0.06
0.54
0.54
0.12
0.55
0.55
0.01
0.96
0.30
0.81
0.04
0.01
0.83
0.55
0.96
0.96
0.23
0.71
0.71
0.32
0.32
1.11
1.11
0.35
0.35
0.35

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3031	2949	2954	2929	3004	2975
Vehs Exited	2965	2860	2898	2846	2908	2896
Starting Vehs	113	97	131	93	118	108
Ending Vehs	179	186	187	176	214	188
Travel Distance (mi)	2378	2299	2307	2297	2355	2327
Travel Time (hr)	142.5	171.8	153.7	140.8	166.5	155.1
Total Delay (hr)	57.9	90.0	71.6	59.1	82.8	72.3
Total Stops	3351	2656	3250	2584	3564	3080
Fuel Used (gal)	91.8	97.1	92.9	89.3	96.6	93.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	3031	2949	2954	2929	3004	2975
Vehs Exited	2965	2860	2898	2846	2908	2896
Starting Vehs	113	97	131	93	118	108
Ending Vehs	179	186	187	176	214	188
Travel Distance (mi)	2378	2299	2307	2297	2355	2327
Travel Time (hr)	142.5	171.8	153.7	140.8	166.5	155.1
Total Delay (hr)	57.9	90.0	71.6	59.1	82.8	72.3
Total Stops	3351	2656	3250	2584	3564	3080
Fuel Used (gal)	91.8	97.1	92.9	89.3	96.6	93.5

2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave Performance by lane

Lane	EB	EB	WB	NB	SW	All
Movements Served	L	TR	LTR	ULR>	<LR	
Denied Del/Veh (s)						0.3
Total Del/Veh (s)	26.4	4.5	7.4	5.5	5.7	12.5

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	6.2	1.0	0.8	15.2	1.0

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										9.1
Total Del/Veh (s)	10.4	1.5	0.2	29.4	0.9	2139.6	193.7	1298.6	21.4	48.7

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	2.3	0.9	0.7	45.6	0.9

22: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	NB	All
Movements Served	UT	TR	ULT	ULR	
Denied Del/Veh (s)					1.6
Total Del/Veh (s)	42.7	22.8	15.1	8.7	21.9

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	WB	All
Movements Served	TR	L	T	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	3.2	345.1	0.6	2.3

Total Network Performance

Denied Del/Veh (s)	9.4
Total Del/Veh (s)	75.2

Intersection: 2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave

Movement	EB	EB	WB	NB	SW
Directions Served	L	TR	LTR	ULR>	<LR
Maximum Queue (ft)	322	73	79	82	95
Average Queue (ft)	207	27	41	36	18
95th Queue (ft)	369	66	71	68	63
Link Distance (ft)	320	320	1037	569	1508
Upstream Blk Time (%)	1				
Queuing Penalty (veh)	5				
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	B4	B4	SB
Directions Served	L	T	T		LR
Maximum Queue (ft)	31	72	430	243	30
Average Queue (ft)	4	5	28	13	6
95th Queue (ft)	20	56	198	132	26
Link Distance (ft)		185	387	387	251
Upstream Blk Time (%)		0	1	0	
Queuing Penalty (veh)		2	5	0	
Storage Bay Dist (ft)	100				
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	132	109	16	82	34	454	450	894	225
Average Queue (ft)	55	9	1	29	5	313	179	378	59
95th Queue (ft)	102	72	8	65	21	536	509	939	184
Link Distance (ft)		202	202	96	96	444	444	950	
Upstream Blk Time (%)		0		0		42	35	13	
Queuing Penalty (veh)		1		2		0	0	0	
Storage Bay Dist (ft)	175								200
Storage Blk Time (%)		0						52	1
Queuing Penalty (veh)		1						52	0

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	35	62	43	27
Average Queue (ft)	6	6	1	4
95th Queue (ft)	27	40	30	19
Link Distance (ft)	96	96	236	550
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 22: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	B4	NB
Directions Served	UT	TR	ULT	T	ULR
Maximum Queue (ft)	507	483	362	74	207
Average Queue (ft)	273	233	125	7	73
95th Queue (ft)	511	487	383	59	155
Link Distance (ft)	1708	1708	387	185	1002
Upstream Blk Time (%)			7	0	
Queuing Penalty (veh)			67	1	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB
Directions Served	TR
Maximum Queue (ft)	203
Average Queue (ft)	36
95th Queue (ft)	151
Link Distance (ft)	236
Upstream Blk Time (%)	0
Queuing Penalty (veh)	1
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 136

I.

Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Dewey Ave
Olympia Ave
Oregon Ave
Oak St
Harmon Ave
H Murphy Ave
Michaud Ave
Maple Ave
Charles Ave
Ryefield Dr
Goosefare Dr
River Dr
Irvin Ave
Hodgeman Ave
Goosefare Brook
Melvin Ave
Orchard Road
Temple Ave
Old Salt Rd
Old Orchard Rd
Biddeford Saco Country Club
0.41
0.68
0.76
0.11
0.11
0.68
0.03
0.03
0.46
0.46
0.17
0.23
0.01
0.72
0.30
0.71
0.04
0.01
0.62
0.26
0.13
0.54
0.13
0.17
0.17
0.41
0.41
0.41
0.62
0.70
0.33
0.19
0.05
0.61
0.27
0.27
0.47

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2322	2239	2296	2295	2228	2275
Vehs Exited	2334	2211	2278	2294	2208	2263
Starting Vehs	102	68	107	107	96	95
Ending Vehs	90	96	125	108	116	106
Travel Distance (mi)	2130	2034	2069	2105	2008	2069
Travel Time (hr)	106.8	98.8	101.8	103.9	98.8	102.0
Total Delay (hr)	31.8	27.3	28.9	29.6	28.1	29.1
Total Stops	3089	2716	2959	2858	2751	2878
Fuel Used (gal)	76.1	72.9	73.4	74.7	71.2	73.7

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2322	2239	2296	2295	2228	2275
Vehs Exited	2334	2211	2278	2294	2208	2263
Starting Vehs	102	68	107	107	96	95
Ending Vehs	90	96	125	108	116	106
Travel Distance (mi)	2130	2034	2069	2105	2008	2069
Travel Time (hr)	106.8	98.8	101.8	103.9	98.8	102.0
Total Delay (hr)	31.8	27.3	28.9	29.6	28.1	29.1
Total Stops	3089	2716	2959	2858	2751	2878
Fuel Used (gal)	76.1	72.9	73.4	74.7	71.2	73.7

2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	L	TR	LT	R	
Denied Del/Veh (s)									0.3
Total Del/Veh (s)	11.9	6.2	37.0	33.1	48.9	28.6	45.2	8.2	14.1

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	5.0	1.7	1.6	12.5	1.7

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										0.3
Total Del/Veh (s)	8.5	6.0	1.1	13.1	9.5	27.9	14.8	31.6	8.8	8.1

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	9.4	1.3	3.3	21.9	2.2

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	All
Movements Served	TR	T	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	1.0	1.4	1.1

4040: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	WB	NB	NB	All
Movements Served	T	R	L	T	L	R	
Denied Del/Veh (s)							0.9
Total Del/Veh (s)	30.4	4.7	23.1	9.7	50.5	20.8	21.5

Total Network Performance

Denied Del/Veh (s)	1.3
Total Del/Veh (s)	43.0

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	LT	R
Maximum Queue (ft)	326	172	49	153	89	108	78	242
Average Queue (ft)	158	71	9	65	22	36	22	86
95th Queue (ft)	285	143	31	117	61	81	58	189
Link Distance (ft)	348	348		1270	966		2075	
Upstream Blk Time (%)	0							
Queuing Penalty (veh)	1							
Storage Bay Dist (ft)			130			95		295
Storage Blk Time (%)				1	1	1		0
Queuing Penalty (veh)				0	1	0		0

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	SB
Directions Served	L	T	LR
Maximum Queue (ft)	31	102	31
Average Queue (ft)	3	6	6
95th Queue (ft)	17	46	25
Link Distance (ft)		224	252
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	197	272	27	50	181	54	42	57	73
Average Queue (ft)	54	140	5	23	124	17	13	14	33
95th Queue (ft)	129	263	20	52	200	41	32	43	62
Link Distance (ft)		198	198		95	419	419	950	
Upstream Blk Time (%)	0	2			12				
Queuing Penalty (veh)	0	13			77				
Storage Bay Dist (ft)	200			25					200
Storage Blk Time (%)	0	2		11	26				
Queuing Penalty (veh)	0	3		73	10				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	WB	SB
Directions Served	L	TR	LR
Maximum Queue (ft)	30	230	18
Average Queue (ft)	3	34	4
95th Queue (ft)	18	156	16
Link Distance (ft)		251	548
Upstream Blk Time (%)		1	
Queuing Penalty (veh)		6	
Storage Bay Dist (ft)	25		
Storage Blk Time (%)	1		
Queuing Penalty (veh)	12		

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB	WB
Directions Served	TR	T
Maximum Queue (ft)	59	41
Average Queue (ft)	3	2
95th Queue (ft)	34	26
Link Distance (ft)	251	348
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Intersection: 4040: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	550	105	192	308	185	271
Average Queue (ft)	293	27	97	117	28	167
95th Queue (ft)	441	67	160	237	128	267
Link Distance (ft)	2073	2073		499	963	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			400			250
Storage Blk Time (%)						2
Queuing Penalty (veh)						1

Network Summary

Network wide Queuing Penalty: 198

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Phase	2	4	5	6	8
Movement(s) Served	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	57.0	21.0	38.0	13.0	21.0
Minimum Green (s)	4.0	4.0	5.0	4.0	4.0
Recall	C-Min	None	None	None	None
Avg. Green (s)	54.1	15.4	35.6	12.2	13.2
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	2	29	2	5	4
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	98	10	29	19	9
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	5.0	49.0	18.0	9.0	45.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None	None	None
Avg. Green (s)	5.9	66.8	7.0	10.3	37.6	7.0
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	70	11	18	16	2	18
Cycles @ Minimum (%)	10	0	16	14	0	16
Cycles Maxed Out (%)	3	89	0	4	20	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 4040: 195 EB/Ocean Park Rd

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	NBL
Maximum Green (s)	10.0	44.0	60.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None
Avg. Green (s)	11.9	39.2	56.0	22.0
g/C Ratio	-0.01	-0.01	-0.01	NA
Cycles Skipped (%)	3	3	3	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	64	98	38	56
Cycles with Peds (%)	0	0	0	0

Controller Summary
Average Cycle Length (s): NA

Number of Complete Cycles : 0

m.

Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Dewey Ave
Olympia Ave
Oregon Ave
Harmon Ave
Oak St
Murphy Ave
Michaud Ave
Maple Ave
Charles Ave
Hobson Ave
Saco Ave
Temple Ave
Old Salt Rd
Melvin Ave
Orchard Road
Old Orchard Rd
Hodgeman Ave
Goosefare Brook
Biddeford Saco Country Club
0.91
0.13
0.49
0.98
0.14
0.85
0.01
0.88
0.05
0.05
0.57
0.57
0.22
0.26
0.45
0.90
0.04
0.01
0.76
0.37
0.18
0.64
0.30
0.94
0.34
0.51
0.51
0.51
0.76
0.72
0.40
0.72
0.34
0.30
0.08
0.33
0.57

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3039	3148	3057	2996	2948	3038
Vehs Exited	2951	3074	2977	2941	2944	2979
Starting Vehs	145	127	103	108	159	126
Ending Vehs	233	201	183	163	163	187
Travel Distance (mi)	2704	2830	2724	2701	2684	2729
Travel Time (hr)	206.9	180.8	164.0	162.5	154.6	173.8
Total Delay (hr)	111.5	81.1	67.9	67.5	60.0	77.6
Total Stops	5903	5178	4673	4572	4337	4933
Fuel Used (gal)	113.3	110.3	103.1	103.0	100.4	106.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	3039	3148	3057	2996	2948	3038
Vehs Exited	2951	3074	2977	2941	2944	2979
Starting Vehs	145	127	103	108	159	126
Ending Vehs	233	201	183	163	163	187
Travel Distance (mi)	2704	2830	2724	2701	2684	2729
Travel Time (hr)	206.9	180.8	164.0	162.5	154.6	173.8
Total Delay (hr)	111.5	81.1	67.9	67.5	60.0	77.6
Total Stops	5903	5178	4673	4572	4337	4933
Fuel Used (gal)	113.3	110.3	103.1	103.0	100.4	106.0

2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	L	TR	LT	R	
Denied Del/Veh (s)									0.2
Total Del/Veh (s)	17.4	6.3	43.4	58.3	106.7	35.5	59.0	10.0	20.4

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					1.0
Total Del/Veh (s)	11.1	6.3	1.9	65.2	4.7

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										0.7
Total Del/Veh (s)	20.7	9.4	1.9	27.3	11.4	46.4	32.2	48.1	16.2	12.7

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	53.2	1.8	6.8	296.3	4.5

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	All
Movements Served	TR	T	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	2.3	2.6	2.4

4040: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	WB	NB	NB	All
Movements Served	T	R	L	T	L	R	
Denied Del/Veh (s)							0.9
Total Del/Veh (s)	80.6	18.1	43.9	10.4	414.7	47.4	55.7

Total Network Performance

Denied Del/Veh (s)	2.5
Total Del/Veh (s)	85.8

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	LT	R
Maximum Queue (ft)	355	197	45	237	177	136	238	365
Average Queue (ft)	233	78	10	114	51	55	38	144
95th Queue (ft)	378	167	32	200	132	114	129	299
Link Distance (ft)	348	348		1270	966		2075	
Upstream Blk Time (%)	1							
Queuing Penalty (veh)	7							
Storage Bay Dist (ft)			130			95		295
Storage Blk Time (%)				12	6	3		1
Queuing Penalty (veh)				2	7	1		1

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	B3	SB
Directions Served	L	T	T	LR
Maximum Queue (ft)	33	273	204	44
Average Queue (ft)	3	95	27	8
95th Queue (ft)	20	280	160	34
Link Distance (ft)		224	499	252
Upstream Blk Time (%)		4	1	
Queuing Penalty (veh)		62	8	
Storage Bay Dist (ft)	100			
Storage Blk Time (%)		7		
Queuing Penalty (veh)		1		

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	198	285	30	55	189	72	62	66	103
Average Queue (ft)	117	229	7	28	158	29	18	21	45
95th Queue (ft)	219	330	24	56	219	63	47	52	85
Link Distance (ft)		198	198		95	419	419	950	
Upstream Blk Time (%)	0	11			24				
Queuing Penalty (veh)	0	84			205				
Storage Bay Dist (ft)	200			25					200
Storage Blk Time (%)	0	11		27	29				
Queuing Penalty (veh)	2	23		227	15				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	36	78	301	35
Average Queue (ft)	8	5	95	7
95th Queue (ft)	30	44	256	32
Link Distance (ft)		95	251	548
Upstream Blk Time (%)		1	3	
Queuing Penalty (veh)		14	26	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	9	0		
Queuing Penalty (veh)	110	0		

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB	WB
Directions Served	TR	T
Maximum Queue (ft)	213	224
Average Queue (ft)	23	16
95th Queue (ft)	132	116
Link Distance (ft)	251	348
Upstream Blk Time (%)	1	0
Queuing Penalty (veh)	7	3
Storage Bay Dist (ft)		
Storage Blk Time (%)		2
Queuing Penalty (veh)		0

Intersection: 4040: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	B3	NB	NB
Directions Served	T	R	L	T	T	L	R
Maximum Queue (ft)	1262	813	321	407	9	913	275
Average Queue (ft)	761	245	181	179	0	433	259
95th Queue (ft)	1550	1080	305	329	7	876	321
Link Distance (ft)	2073	2073		499	224	963	
Upstream Blk Time (%)	1			0		1	
Queuing Penalty (veh)	0			3		0	
Storage Bay Dist (ft)			400				250
Storage Blk Time (%)			1	0		0	43
Queuing Penalty (veh)			4	0		0	19

Network Summary

Network wide Queuing Penalty: 831

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Phase	2	4	5	6	8
Movement(s) Served	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	77.0	21.0	54.0	17.0	21.0
Minimum Green (s)	4.0	4.0	5.0	4.0	4.0
Recall	C-Min	None	None	None	None
Avg. Green (s)	76.8	22.5	55.1	16.1	21.1
g/C Ratio	NA	-0.01	NA	NA	NA
Cycles Skipped (%)	0	19	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	100	50	75	50	50
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	5.0	69.0	18.0	8.0	66.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None	None	None
Avg. Green (s)	6.8	87.6	10.5	10.2	68.2	10.5
g/C Ratio	-0.01	-0.01	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	77	3	9	9	0	9
Cycles @ Minimum (%)	3	0	6	0	0	6
Cycles Maxed Out (%)	3	97	3	9	59	3
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

Intersection: 4040: 195 EB/Ocean Park Rd

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	NBL
Maximum Green (s)	15.0	58.0	79.0	19.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None
Avg. Green (s)	15.2	56.6	79.3	20.7
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	97	100	87	97
Cycles with Peds (%)	0	0	0	0

Controller Summary
Average Cycle Length (s): NA

Number of Complete Cycles : 0

n.

Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Melvin Ave
Orchard Road
Old Orchard Rd
Temple Ave
Old Salt Rd
Goosefare Brook
Hodgeman Ave
Dewey Ave
Olympia Ave
Oregon Ave
Oak St
Harmon Ave
Maple Ave
Murphy Ave
Michaud Ave
Charles Ave
Saco Ave
Biddeford Saco Country Club
0.52
1.05
0.96
0.14
0.15
0.93
0.07
0.07
0.61
0.61
0.26
0.30
0.01
0.96
0.51
0.94
0.05
0.43
0.22
0.01
0.83
0.67
0.37
3.38
3.38
0.55
0.55
0.55
0.83
0.74
0.43
0.32
0.09
0.77
0.36
0.37
0.63

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3047	3156	3055	3000	2944	3040
Vehs Exited	3009	3126	2979	2953	2944	3002
Starting Vehs	152	149	107	108	154	129
Ending Vehs	190	179	183	155	154	171
Travel Distance (mi)	2753	2853	2723	2704	2683	2743
Travel Time (hr)	171.8	178.9	176.4	167.8	157.1	170.4
Total Delay (hr)	74.8	78.3	80.4	72.7	62.6	73.8
Total Stops	4746	4771	4924	4506	4158	4621
Fuel Used (gal)	106.0	110.4	106.0	104.2	100.8	105.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	3047	3156	3055	3000	2944	3040
Vehs Exited	3009	3126	2979	2953	2944	3002
Starting Vehs	152	149	107	108	154	129
Ending Vehs	190	179	183	155	154	171
Travel Distance (mi)	2753	2853	2723	2704	2683	2743
Travel Time (hr)	171.8	178.9	176.4	167.8	157.1	170.4
Total Delay (hr)	74.8	78.3	80.4	72.7	62.6	73.8
Total Stops	4746	4771	4924	4506	4158	4621
Fuel Used (gal)	106.0	110.4	106.0	104.2	100.8	105.5

2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	L	TR	LT	R	
Denied Del/Veh (s)									0.2
Total Del/Veh (s)	18.2	7.7	53.5	65.2	134.1	45.6	65.5	9.8	22.7

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.8
Total Del/Veh (s)	9.3	6.2	1.8	20.1	4.5

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										0.6
Total Del/Veh (s)	22.4	8.5	1.7	33.3	10.4	52.1	34.3	52.5	16.4	12.3

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	29.5	1.7	7.1	153.1	4.3

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	All
Movements Served	TR	T	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	2.6	3.7	3.0

4040: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	WB	NB	NB	All
Movements Served	T	R	L	T	L	R	
Denied Del/Veh (s)							0.9
Total Del/Veh (s)	58.4	8.9	64.5	10.5	403.1	44.3	48.3

Total Network Performance

Denied Del/Veh (s)	2.3
Total Del/Veh (s)	81.5

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	LT	R
Maximum Queue (ft)	356	245	118	264	211	157	240	370
Average Queue (ft)	255	98	14	125	62	69	48	143
95th Queue (ft)	395	202	62	217	157	136	148	293
Link Distance (ft)	348	348		1270	966		2075	
Upstream Blk Time (%)	2							
Queuing Penalty (veh)	14							
Storage Bay Dist (ft)			130			95		295
Storage Blk Time (%)				16	9	6		1
Queuing Penalty (veh)				3	10	3		1

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	B3	B3	SB
Directions Served	L	T	T		LR
Maximum Queue (ft)	54	296	344	110	31
Average Queue (ft)	5	110	27	4	7
95th Queue (ft)	28	299	169	77	27
Link Distance (ft)		224	498	498	252
Upstream Blk Time (%)		4	0	0	
Queuing Penalty (veh)		56	0	0	
Storage Bay Dist (ft)	100				
Storage Blk Time (%)		7			
Queuing Penalty (veh)		0			

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	198	280	48	55	189	76	58	65	103
Average Queue (ft)	115	223	7	29	151	29	18	22	47
95th Queue (ft)	215	345	29	56	223	65	46	55	91
Link Distance (ft)		198	198		95	419	419	950	
Upstream Blk Time (%)	0	10			22				
Queuing Penalty (veh)	0	77			189				
Storage Bay Dist (ft)	200			25					200
Storage Blk Time (%)	0	10		32	26				
Queuing Penalty (veh)	1	21		270	13				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	32	119	290	27
Average Queue (ft)	6	6	92	4
95th Queue (ft)	26	52	263	19
Link Distance (ft)		95	251	548
Upstream Blk Time (%)		0	4	
Queuing Penalty (veh)		6	34	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	5	1		
Queuing Penalty (veh)	70	0		

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB	WB
Directions Served	TR	T
Maximum Queue (ft)	300	298
Average Queue (ft)	35	26
95th Queue (ft)	174	163
Link Distance (ft)	251	348
Upstream Blk Time (%)	1	1
Queuing Penalty (veh)	12	10
Storage Bay Dist (ft)		
Storage Blk Time (%)		3
Queuing Penalty (veh)		0

Intersection: 4040: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	B3	NB	NB
Directions Served	T	R	L	T	T	L	R
Maximum Queue (ft)	1124	583	394	422	62	864	275
Average Queue (ft)	632	74	233	191	3	424	265
95th Queue (ft)	1042	325	395	392	34	856	308
Link Distance (ft)	2073	2073		498	224	962	
Upstream Blk Time (%)				1		1	
Queuing Penalty (veh)				7		0	
Storage Bay Dist (ft)			400				250
Storage Blk Time (%)			2	0			40
Queuing Penalty (veh)			16	0			18

Network Summary

Network wide Queuing Penalty: 832

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Phase	2	4	5	6	8
Movement(s) Served	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	97.0	21.0	70.0	21.0	21.0
Minimum Green (s)	4.0	4.0	5.0	4.0	4.0
Recall	C-Min	None	None	None	None
Avg. Green (s)	95.1	25.1	70.0	18.7	23.4
g/C Ratio	NA	-0.01	NA	NA	NA
Cycles Skipped (%)	0	12	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	100	58	63	39	56
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	5.0	89.0	18.0	11.0	83.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None	None	None
Avg. Green (s)	7.3	104.1	10.5	10.4	79.0	10.5
g/C Ratio	-0.01	-0.01	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	77	4	3	10	0	3
Cycles @ Minimum (%)	0	0	7	0	0	7
Cycles Maxed Out (%)	0	96	3	3	42	3
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

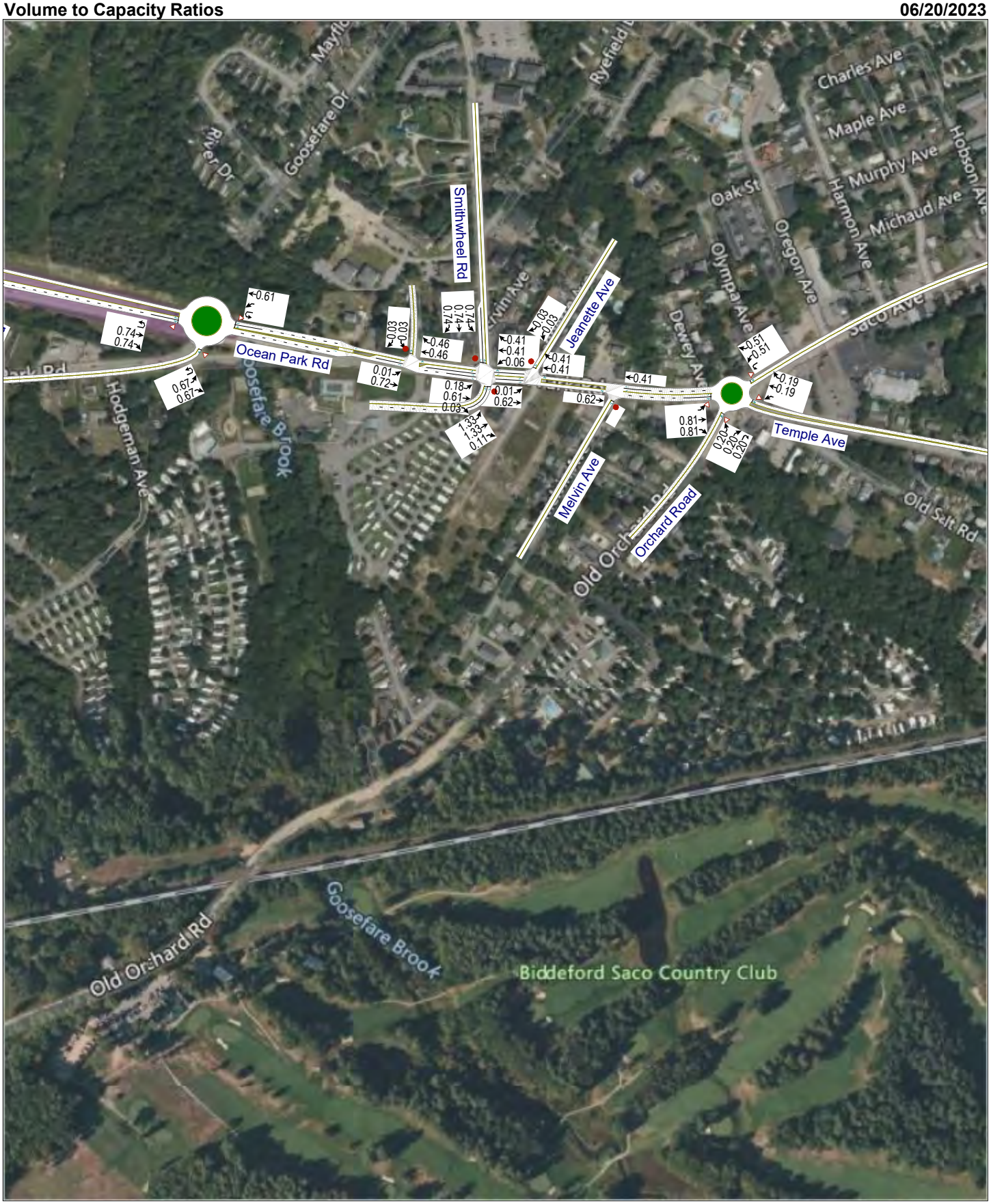
Intersection: 4040: 195 EB/Ocean Park Rd

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	NBL
Maximum Green (s)	19.0	70.0	95.0	23.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None
Avg. Green (s)	19.6	68.7	96.2	25.3
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	96	100	85	96
Cycles with Peds (%)	0	0	0	0

Controller Summary
Average Cycle Length (s): NA

Number of Complete Cycles : 0

P.


Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Temple Ave
Melvin Ave
Orchard Road
Old Orchard Rd
Goosefare Brook
Biddeford Saco Country Club
Hodgeman Ave
Goosefare Dr
Charles Ave
Maple Ave
E Murphy Ave
Michaud Ave
Harmon Ave
Oregon Ave
Olympia Ave
Dewey Ave
Saco Ave
Old Salt Rd
Oak St
0.61
0.74
0.74
0.67
0.67
0.03
0.03
0.46
0.46
0.74
0.74
0.74
0.01
0.72
0.18
0.61
0.03
0.01
0.62
1.33
1.33
0.11
0.03
0.03
0.41
0.41
0.06
0.41
0.41
0.41
0.62
0.51
0.51
0.19
0.19
0.81
0.81
0.20
0.20
0.20

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2222	2260	2274	2310	2293	2273
Vehs Exited	2238	2258	2272	2309	2283	2271
Starting Vehs	99	73	79	72	66	79
Ending Vehs	83	75	81	73	76	76
Travel Distance (mi)	1777	1802	1804	1830	1817	1806
Travel Time (hr)	75.0	75.4	75.7	77.9	75.7	75.9
Total Delay (hr)	11.4	11.3	11.5	12.8	11.0	11.6
Total Stops	970	1062	1008	1074	1007	1023
Fuel Used (gal)	61.9	62.7	62.5	63.5	62.5	62.6

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2222	2260	2274	2310	2293	2273
Vehs Exited	2238	2258	2272	2309	2283	2271
Starting Vehs	99	73	79	72	66	79
Ending Vehs	83	75	81	73	76	76
Travel Distance (mi)	1777	1802	1804	1830	1817	1806
Travel Time (hr)	75.0	75.4	75.7	77.9	75.7	75.9
Total Delay (hr)	11.4	11.3	11.5	12.8	11.0	11.6
Total Stops	970	1062	1008	1074	1007	1023
Fuel Used (gal)	61.9	62.7	62.5	63.5	62.5	62.6

2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave Performance by lane

Lane	EB	EB	WB	NB	SW	All
Movements Served	L	TR	LTR	ULR>	<LR	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	5.7	3.6	6.0	4.4	4.7	4.9

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	4.1	0.4	0.6	12.8	0.6

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										0.2
Total Del/Veh (s)	5.8	0.6	0.1	7.7	0.7	189.3	10.9	149.9	9.8	5.9

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	0.9	0.3	0.5	12.7	0.4

22: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	WB	NB	All
Movements Served	UT	TR	UL	T	ULR	
Denied Del/Veh (s)						0.1
Total Del/Veh (s)	10.4	5.4	3.2	3.9	5.1	6.2

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	WB	All
Movements Served	TR	L	T	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	0.5		0.4	0.6

Total Network Performance

Denied Del/Veh (s)	0.4
Total Del/Veh (s)	17.4

Intersection: 2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave

Movement	EB	EB	WB	NB	SW
Directions Served	L	TR	LTR	ULR>	<LR
Maximum Queue (ft)	167	56	68	67	63
Average Queue (ft)	52	13	34	25	10
95th Queue (ft)	125	43	62	55	39
Link Distance (ft)	320	320	1037	569	1508
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	B4	SB
Directions Served	L	T	T	LR
Maximum Queue (ft)	31	11	86	30
Average Queue (ft)	3	0	3	7
95th Queue (ft)	19	8	61	27
Link Distance (ft)		185	388	251
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)	100			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	TR	LT	R	LT	R
Maximum Queue (ft)	95	44	38	109	39	75	85
Average Queue (ft)	37	16	3	48	17	25	36
95th Queue (ft)	71	42	19	107	40	68	63
Link Distance (ft)		96	96	444	444	950	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	175						200
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	31	31
Average Queue (ft)	2	4
95th Queue (ft)	16	20
Link Distance (ft)	96	550
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	NB
Directions Served	UT	TR	UL	T	ULR
Maximum Queue (ft)	182	146	49	42	114
Average Queue (ft)	92	26	17	5	33
95th Queue (ft)	156	97	48	25	84
Link Distance (ft)	1709	1709	388	388	1002
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

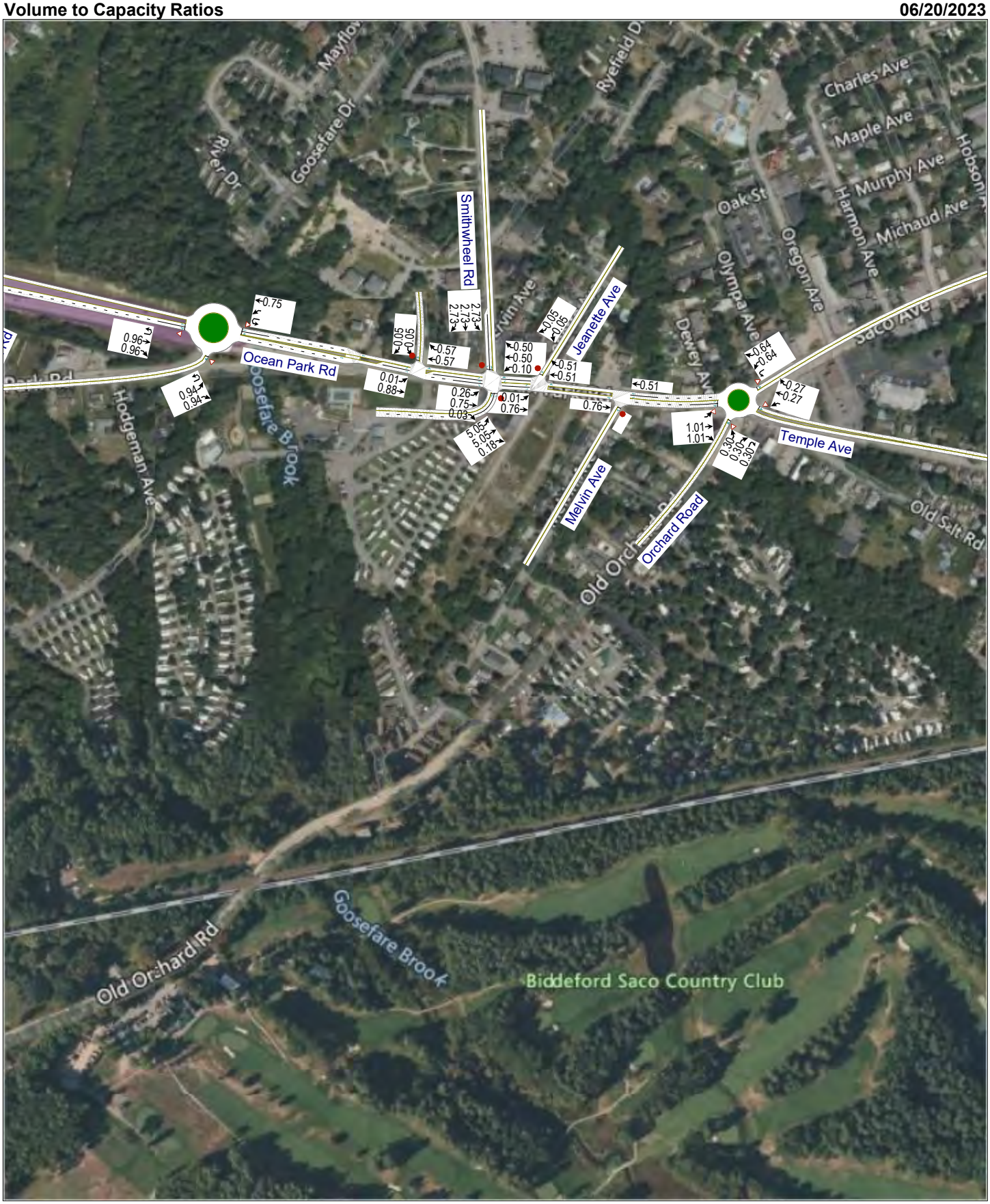
Intersection: 28: Melvin Ave & Ocean Park Rd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 0

q.


Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Temple Ave
Melvin Ave
Orchard Road
Old Orchard Rd
Goosefare Brook
Biddeford Saco Country Club
Hodgeman Ave
Charles Ave
Maple Ave
Murphy Ave
Michaud Ave
Oak St
Oregon Ave
Olympia Ave
Dewey Ave
Irvin Ave
Saco Ave
Old Salt Rd
Goosefare Dr
River Dr
Ryefield Dr
Harmon Ave
0.75
0.96
0.94
0.05
0.57
2.73
0.50
0.10
0.51
0.01
0.88
0.26
0.75
0.03
0.76
5.05
0.18
1.01
0.30
0.64
0.27

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2950	3007	3001	3020	2988	2992
Vehs Exited	2875	2940	2900	2866	2928	2903
Starting Vehs	109	107	121	91	100	104
Ending Vehs	184	174	222	245	160	198
Travel Distance (mi)	2295	2374	2312	2354	2368	2341
Travel Time (hr)	165.5	161.9	203.4	221.0	165.8	183.5
Total Delay (hr)	84.1	77.5	121.5	137.5	81.6	100.4
Total Stops	2523	2903	5827	6064	2335	3932
Fuel Used (gal)	95.9	96.6	104.6	108.8	97.0	100.6

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2950	3007	3001	3020	2988	2992
Vehs Exited	2875	2940	2900	2866	2928	2903
Starting Vehs	109	107	121	91	100	104
Ending Vehs	184	174	222	245	160	198
Travel Distance (mi)	2295	2374	2312	2354	2368	2341
Travel Time (hr)	165.5	161.9	203.4	221.0	165.8	183.5
Total Delay (hr)	84.1	77.5	121.5	137.5	81.6	100.4
Total Stops	2523	2903	5827	6064	2335	3932
Fuel Used (gal)	95.9	96.6	104.6	108.8	97.0	100.6

2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave Performance by lane

Lane	EB	EB	WB	NB	SW	All
Movements Served	L	TR	LTR	ULR>	<LR	
Denied Del/Veh (s)						0.6
Total Del/Veh (s)	31.1	4.9	7.6	4.9	7.6	14.8

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.3
Total Del/Veh (s)	6.4	3.7	0.8	15.5	2.7

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										16.7
Total Del/Veh (s)	12.6	4.5	0.5	56.7	1.0	1725.7	322.9	2072.6	17.2	66.3

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	3.1	2.6	1.3	105.8	2.4

22: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	WB	NB	All
Movements Served	UT	TR	UL	T	ULR	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	51.9	41.5	3.4	4.2	22.2	26.1

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	WB	All
Movements Served	TR	L	T	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	7.7		1.4	5.3

Total Network Performance

Denied Del/Veh (s)	15.1
Total Del/Veh (s)	101.7

Intersection: 2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave

Movement	EB	EB	WB	NB	SW
Directions Served	L	TR	LTR	ULR>	<LR
Maximum Queue (ft)	324	81	89	67	232
Average Queue (ft)	227	24	42	32	36
95th Queue (ft)	419	62	75	60	195
Link Distance (ft)	320	320	1037	569	1508
Upstream Blk Time (%)	2				
Queuing Penalty (veh)	14				
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	B4	B4	SB
Directions Served	L	T	T		LR
Maximum Queue (ft)	50	158	362	349	35
Average Queue (ft)	6	60	159	116	7
95th Queue (ft)	30	232	498	427	28
Link Distance (ft)		185	388	388	251
Upstream Blk Time (%)		4	14	5	
Queuing Penalty (veh)		58	103	35	
Storage Bay Dist (ft)	100				
Storage Blk Time (%)		4			
Queuing Penalty (veh)		0			

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	165	157	8	85	40	454	456	960	223
Average Queue (ft)	67	62	0	35	5	287	168	612	34
95th Queue (ft)	130	201	4	80	23	526	451	1219	141
Link Distance (ft)		202	202	96	96	444	444	950	
Upstream Blk Time (%)	0	1		3		30	20	43	
Queuing Penalty (veh)	0	7		11		0	0	0	
Storage Bay Dist (ft)	175								200
Storage Blk Time (%)	0	3						73	0
Queuing Penalty (veh)	0	5						73	0

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	31	86	78	36
Average Queue (ft)	5	33	6	8
95th Queue (ft)	25	102	63	31
Link Distance (ft)	96	96	236	550
Upstream Blk Time (%)		1	1	
Queuing Penalty (veh)		5	9	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 22: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	NB
Directions Served	UT	TR	UL	T	ULR
Maximum Queue (ft)	602	585	66	41	448
Average Queue (ft)	317	276	17	6	152
95th Queue (ft)	719	694	50	27	426
Link Distance (ft)	1709	1709	388	388	1002
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

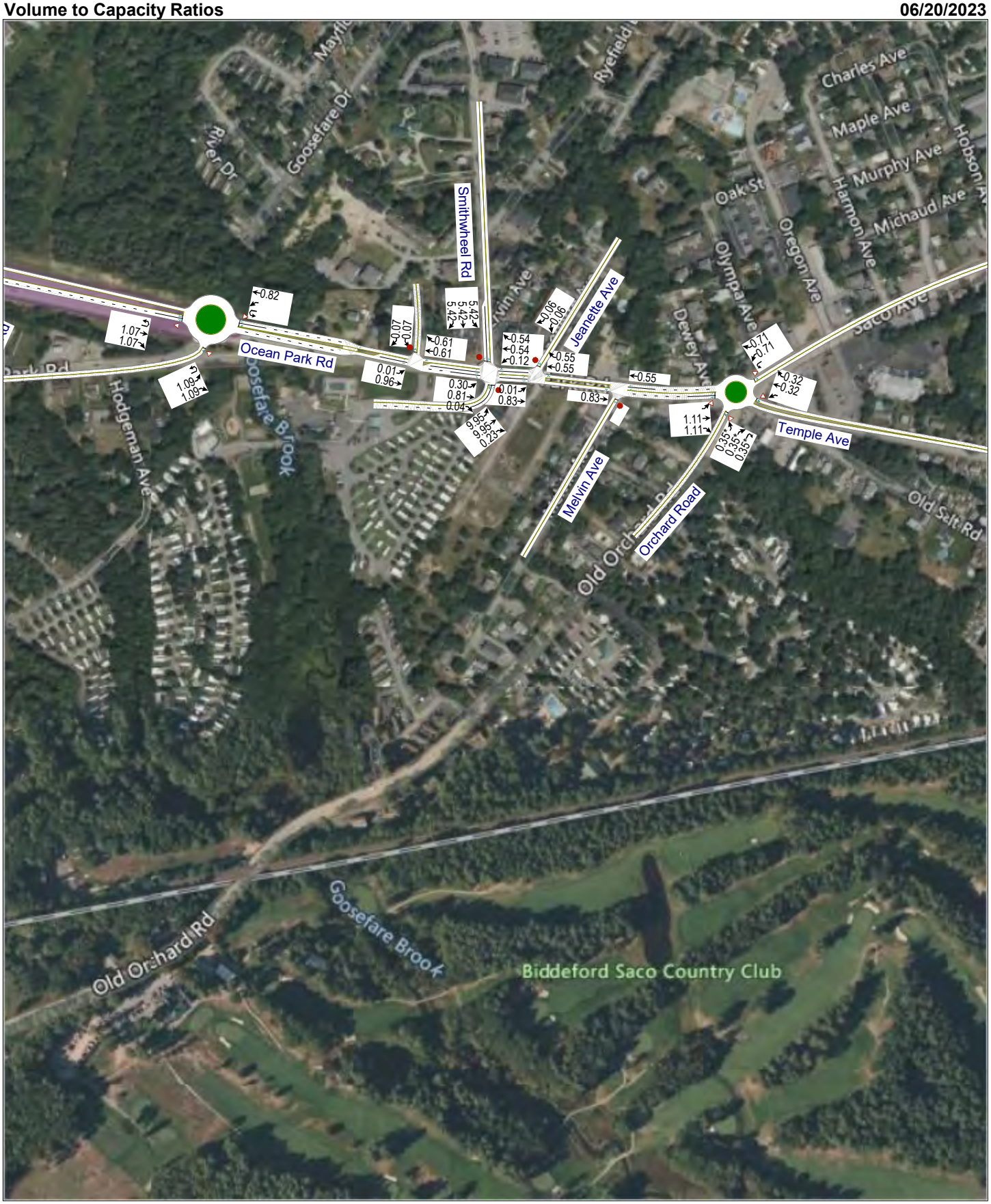
Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB	WB	WB
Directions Served	TR	L	T
Maximum Queue (ft)	219	73	73
Average Queue (ft)	108	5	5
95th Queue (ft)	280	69	73
Link Distance (ft)	236	320	320
Upstream Blk Time (%)	1	1	1
Queuing Penalty (veh)	9	2	3
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 334

r.


Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Melvin Ave
Orchard Road
Temple Ave
Hodgeman Ave
Goosefare Brook
Old Orchard Rd
Biddeford Saco Country Club
Charles Ave
Maple Ave
Murphy Ave
Michaud Ave
Harmon Ave
Oregon Ave
Olympia Ave
Dewey Ave
Oak St
Old Salt Rd
0.82
1.07
1.09
0.07
0.61
5.42
0.06
0.54
0.12
0.55
0.01
0.96
0.30
0.81
0.04
0.83
0.71
0.32
1.11
0.35
0.25

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2950	3007	3001	3020	2988	2992
Vehs Exited	2875	2940	2900	2866	2928	2903
Starting Vehs	109	107	121	91	100	104
Ending Vehs	184	174	222	245	160	198
Travel Distance (mi)	2295	2374	2312	2354	2368	2341
Travel Time (hr)	165.5	161.9	203.4	221.0	165.8	183.5
Total Delay (hr)	84.1	77.5	121.5	137.5	81.6	100.4
Total Stops	2523	2903	5827	6064	2335	3932
Fuel Used (gal)	95.9	96.6	104.6	108.8	97.0	100.6

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2950	3007	3001	3020	2988	2992
Vehs Exited	2875	2940	2900	2866	2928	2903
Starting Vehs	109	107	121	91	100	104
Ending Vehs	184	174	222	245	160	198
Travel Distance (mi)	2295	2374	2312	2354	2368	2341
Travel Time (hr)	165.5	161.9	203.4	221.0	165.8	183.5
Total Delay (hr)	84.1	77.5	121.5	137.5	81.6	100.4
Total Stops	2523	2903	5827	6064	2335	3932
Fuel Used (gal)	95.9	96.6	104.6	108.8	97.0	100.6

2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave Performance by lane

Lane	EB	EB	WB	NB	SW	All
Movements Served	L	TR	LTR	ULR>	<LR	
Denied Del/Veh (s)						0.6
Total Del/Veh (s)	31.1	4.9	7.6	4.9	7.6	14.8

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.3
Total Del/Veh (s)	6.4	3.7	0.8	15.5	2.7

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										16.7
Total Del/Veh (s)	12.6	4.5	0.5	56.7	1.0	1725.7	322.9	2072.6	17.2	66.3

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	3.1	2.6	1.3	105.8	2.4

22: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	WB	NB	All
Movements Served	UT	TR	UL	T	ULR	
Denied Del/Veh (s)						0.2
Total Del/Veh (s)	51.9	41.5	3.4	4.2	22.2	26.1

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	WB	All
Movements Served	TR	L	T	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	7.7		1.4	5.3

Total Network Performance

Denied Del/Veh (s)	15.1
Total Del/Veh (s)	101.7

Intersection: 2: Orchard Road & Ocean Ave/Temple Ave & Saco Ave

Movement	EB	EB	WB	NB	SW
Directions Served	L	TR	LTR	ULR>	<LR
Maximum Queue (ft)	324	81	89	67	232
Average Queue (ft)	227	24	42	32	36
95th Queue (ft)	419	62	75	60	195
Link Distance (ft)	320	320	1037	569	1508
Upstream Blk Time (%)	2				
Queuing Penalty (veh)	14				
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	B4	B4	SB
Directions Served	L	T	T		LR
Maximum Queue (ft)	50	158	362	349	35
Average Queue (ft)	6	60	159	116	7
95th Queue (ft)	30	232	498	427	28
Link Distance (ft)		185	388	388	251
Upstream Blk Time (%)		4	14	5	
Queuing Penalty (veh)		58	103	35	
Storage Bay Dist (ft)	100				
Storage Blk Time (%)		4			
Queuing Penalty (veh)		0			

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	165	157	8	85	40	454	456	960	223
Average Queue (ft)	67	62	0	35	5	287	168	612	34
95th Queue (ft)	130	201	4	80	23	526	451	1219	141
Link Distance (ft)		202	202	96	96	444	444	950	
Upstream Blk Time (%)	0	1		3		30	20	43	
Queuing Penalty (veh)	0	7		11		0	0	0	
Storage Bay Dist (ft)	175								200
Storage Blk Time (%)	0	3						73	0
Queuing Penalty (veh)	0	5						73	0

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	31	86	78	36
Average Queue (ft)	5	33	6	8
95th Queue (ft)	25	102	63	31
Link Distance (ft)	96	96	236	550
Upstream Blk Time (%)		1	1	
Queuing Penalty (veh)		5	9	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 22: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	NB
Directions Served	UT	TR	UL	T	ULR
Maximum Queue (ft)	602	585	66	41	448
Average Queue (ft)	317	276	17	6	152
95th Queue (ft)	719	694	50	27	426
Link Distance (ft)	1709	1709	388	388	1002
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB	WB	WB
Directions Served	TR	L	T
Maximum Queue (ft)	219	73	73
Average Queue (ft)	108	5	5
95th Queue (ft)	280	69	73
Link Distance (ft)	236	320	320
Upstream Blk Time (%)	1	1	1
Queuing Penalty (veh)	9	2	3
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 334

S.

Mayflower Dr
Ryefield Dr
Charles Ave
Maple Ave
Murphy Ave
Hobson Ave
Michaud Ave
Harmon Ave
Oak St
Oregon Ave
Olympia Ave
Dewey Ave
Irvin Ave
Temple Ave
Saco Ave
Summerhaven Rd
Reserve St
Ocean Park Rd
Goosefare Brook
Hodgeman Ave
Old Orchard Rd
Old Salt Rd
Biddeford Saco Country Club

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2322	2238	2296	2295	2230	2277
Vehs Exited	2336	2214	2290	2296	2229	2273
Starting Vehs	95	65	107	94	91	89
Ending Vehs	81	89	113	93	92	94
Travel Distance (mi)	2126	2033	2071	2105	2015	2070
Travel Time (hr)	98.2	92.9	96.1	98.9	92.1	95.6
Total Delay (hr)	23.6	21.6	23.3	24.8	21.3	22.9
Total Stops	2495	2343	2579	2478	2248	2428
Fuel Used (gal)	73.8	71.4	72.1	73.5	69.7	72.1

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2322	2238	2296	2295	2230	2277
Vehs Exited	2336	2214	2290	2296	2229	2273
Starting Vehs	95	65	107	94	91	89
Ending Vehs	81	89	113	93	92	94
Travel Distance (mi)	2126	2033	2071	2105	2015	2070
Travel Time (hr)	98.2	92.9	96.1	98.9	92.1	95.6
Total Delay (hr)	23.6	21.6	23.3	24.8	21.3	22.9
Total Stops	2495	2343	2579	2478	2248	2428
Fuel Used (gal)	73.8	71.4	72.1	73.5	69.7	72.1

2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	L	TR	LT	R	
Denied Del/Veh (s)									0.2
Total Del/Veh (s)	12.3	6.4	40.5	34.2	41.8	27.1	46.9	7.8	14.1

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	5.3	2.0	1.6	13.0	1.9

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										0.3
Total Del/Veh (s)	8.5	5.9	1.1	12.9	8.5	26.0	13.8	28.0	7.6	7.6

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	6.5	1.2	1.9	16.8	1.6

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	All
Movements Served	TR	T	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	0.9	1.2	1.0

4040: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	WB	NB	NB	All
Movements Served	T	R	L	T	L	R	
Denied Del/Veh (s)							0.9
Total Del/Veh (s)	15.8	3.8	12.0	3.3	41.5	1.8	9.1

Total Network Performance

Denied Del/Veh (s)	1.3
Total Del/Veh (s)	33.6

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	LT	R
Maximum Queue (ft)	345	178	41	144	75	99	72	240
Average Queue (ft)	158	72	9	69	20	36	22	81
95th Queue (ft)	288	147	28	124	53	77	57	176
Link Distance (ft)	348	348		1270	966		2075	
Upstream Blk Time (%)	0							
Queuing Penalty (veh)	1							
Storage Bay Dist (ft)			130			95		295
Storage Blk Time (%)				1	0	1		0
Queuing Penalty (veh)				0	0	0		0

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	B3	B3	SB
Directions Served	L	T	T		LR
Maximum Queue (ft)	31	143	527	102	31
Average Queue (ft)	3	14	47	3	6
95th Queue (ft)	18	104	288	72	25
Link Distance (ft)		224	511	511	252
Upstream Blk Time (%)		0	0	0	
Queuing Penalty (veh)		4	1	0	
Storage Bay Dist (ft)	100				
Storage Blk Time (%)		1			
Queuing Penalty (veh)		0			

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	173	260	32	50	181	54	38	54	74
Average Queue (ft)	60	137	5	20	119	17	13	13	34
95th Queue (ft)	148	265	21	48	198	42	31	41	60
Link Distance (ft)		198	198		95	419	419	950	
Upstream Blk Time (%)	0	2			10				
Queuing Penalty (veh)	0	14			64				
Storage Bay Dist (ft)	200			25					200
Storage Blk Time (%)	0	2		12	24				
Queuing Penalty (veh)	0	4		74	9				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	WB	SB
Directions Served	L	TR	LR
Maximum Queue (ft)	31	146	18
Average Queue (ft)	3	17	4
95th Queue (ft)	18	78	16
Link Distance (ft)		251	548
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	25		
Storage Blk Time (%)	1		
Queuing Penalty (veh)	9		

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB
Directions Served	TR
Maximum Queue (ft)	28
Average Queue (ft)	1
95th Queue (ft)	12
Link Distance (ft)	251
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4040: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	NB
Directions Served	T	R	L	T	L
Maximum Queue (ft)	397	80	175	135	57
Average Queue (ft)	178	23	73	53	17
95th Queue (ft)	306	60	134	121	44
Link Distance (ft)	2073	2073		511	962
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			400		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 180

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Phase	2	4	5	6	8
Movement(s) Served	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	57.0	21.0	38.0	13.0	21.0
Minimum Green (s)	4.0	4.0	5.0	4.0	4.0
Recall	C-Min	None	None	None	None
Avg. Green (s)	53.8	15.8	34.6	12.2	13.6
g/C Ratio	-0.01	-0.01	NA	-0.01	-0.01
Cycles Skipped (%)	2	28	0	5	4
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	98	8	25	16	7
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	5.0	49.0	18.0	9.0	45.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None	None	None
Avg. Green (s)	6.1	65.3	6.8	8.6	37.4	6.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	74	9	18	14	0	18
Cycles @ Minimum (%)	10	0	13	18	0	13
Cycles Maxed Out (%)	0	91	0	4	19	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 4040: 195 EB/Ocean Park Rd

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	NBL
Maximum Green (s)	10.0	44.0	60.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None
Avg. Green (s)	9.5	30.0	79.1	6.9
g/C Ratio	-0.01	NA	-0.01	-0.01
Cycles Skipped (%)	4	0	22	21
Cycles @ Minimum (%)	22	0	0	17
Cycles Maxed Out (%)	6	100	35	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

t.

Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Dewey Ave
Olympia Ave
Oregon Ave
Oak St
Harmon Ave
Murphy Ave
Michaud Ave
Maple Ave
Charles Ave
Temple Ave
Old Salt Rd
Melvin Ave
Orchard Road
Old Orchard Rd
Goosefare Brook
Hodgeman Ave
Biddeford Saco Country Club
0.49
0.98
0.91
0.13
0.14
0.85
0.05
0.05
0.57
0.57
0.22
0.26
0.01
0.88
0.45
0.90
0.04
0.01
0.76
0.37
0.18
0.64
0.30
0.94
0.84
0.51
0.51
0.51
0.76
0.72
0.40
0.30
0.08
0.72
0.34
0.33
0.57

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3009	3154	3085	2985	2944	3036
Vehs Exited	2908	3057	2985	2913	2949	2963
Starting Vehs	159	127	101	103	151	125
Ending Vehs	260	224	201	175	146	200
Travel Distance (mi)	2645	2803	2728	2678	2683	2708
Travel Time (hr)	226.8	186.4	165.7	162.1	145.5	177.3
Total Delay (hr)	133.8	87.8	69.7	68.2	51.2	82.1
Total Stops	5046	5100	4875	5043	4027	4816
Fuel Used (gal)	117.1	110.7	103.2	102.1	97.9	106.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	3009	3154	3085	2985	2944	3036
Vehs Exited	2908	3057	2985	2913	2949	2963
Starting Vehs	159	127	101	103	151	125
Ending Vehs	260	224	201	175	146	200
Travel Distance (mi)	2645	2803	2728	2678	2683	2708
Travel Time (hr)	226.8	186.4	165.7	162.1	145.5	177.3
Total Delay (hr)	133.8	87.8	69.7	68.2	51.2	82.1
Total Stops	5046	5100	4875	5043	4027	4816
Fuel Used (gal)	117.1	110.7	103.2	102.1	97.9	106.2

2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	L	TR	LT	R	
Denied Del/Veh (s)									0.3
Total Del/Veh (s)	19.5	7.5	46.6	55.4	118.8	34.7	59.1	9.7	21.5

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					1.3
Total Del/Veh (s)	11.1	7.5	1.9	16.5	5.2

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										0.7
Total Del/Veh (s)	20.9	10.1	1.8	27.3	11.1	44.7	33.3	47.5	17.0	13.0

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	52.8	2.0	7.3	311.1	5.1

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	All
Movements Served	TR	T	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	3.0	3.2	3.1

4040: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	WB	NB	NB	All
Movements Served	T	R	L	T	L	R	
Denied Del/Veh (s)							3.2
Total Del/Veh (s)	125.2	94.4	23.0	4.1	68.8	2.8	53.1

Total Network Performance

Denied Del/Veh (s)	4.7
Total Del/Veh (s)	88.9

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	LT	R
Maximum Queue (ft)	364	225	45	220	190	147	167	399
Average Queue (ft)	249	93	11	111	57	60	36	139
95th Queue (ft)	391	189	32	193	152	127	105	298
Link Distance (ft)	348	348		1270	966		2075	
Upstream Blk Time (%)	3							
Queuing Penalty (veh)	18							
Storage Bay Dist (ft)			130			95		295
Storage Blk Time (%)				11	9	3		1
Queuing Penalty (veh)				2	10	1		1

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	B3	B3	SB
Directions Served	L	T	T		LR
Maximum Queue (ft)	68	303	534	440	35
Average Queue (ft)	6	124	247	70	7
95th Queue (ft)	38	317	661	365	28
Link Distance (ft)		224	511	511	252
Upstream Blk Time (%)		6	3	2	
Queuing Penalty (veh)		91	22	14	
Storage Bay Dist (ft)	100				
Storage Blk Time (%)		10			
Queuing Penalty (veh)		1			

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	197	287	38	55	185	72	72	57	105
Average Queue (ft)	112	232	7	28	155	28	19	21	46
95th Queue (ft)	214	345	26	57	215	61	53	49	88
Link Distance (ft)		198	198		95	419	419	950	
Upstream Blk Time (%)	0	14			23				
Queuing Penalty (veh)	0	103			202				
Storage Bay Dist (ft)	200			25					200
Storage Blk Time (%)	0	14		26	29				
Queuing Penalty (veh)	2	28		221	15				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	35	101	307	48
Average Queue (ft)	8	7	96	9
95th Queue (ft)	29	57	275	39
Link Distance (ft)		95	251	548
Upstream Blk Time (%)		1	4	
Queuing Penalty (veh)		20	34	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	8	1		
Queuing Penalty (veh)	105	0		

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB	WB
Directions Served	TR	T
Maximum Queue (ft)	333	340
Average Queue (ft)	43	24
95th Queue (ft)	195	148
Link Distance (ft)	251	348
Upstream Blk Time (%)	1	1
Queuing Penalty (veh)	18	5
Storage Bay Dist (ft)		
Storage Blk Time (%)		3
Queuing Penalty (veh)		0

Intersection: 4040: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	1574	1249	279	250	158	66
Average Queue (ft)	992	472	126	83	39	5
95th Queue (ft)	2032	1643	216	200	123	65
Link Distance (ft)	2073	2073		511	962	
Upstream Blk Time (%)	10	7				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)			400			250
Storage Blk Time (%)						1
Queuing Penalty (veh)						0

Network Summary

Network wide Queuing Penalty: 913

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Phase	2	4	5	6	8
Movement(s) Served	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	77.0	21.0	54.0	17.0	21.0
Minimum Green (s)	4.0	4.0	5.0	4.0	4.0
Recall	C-Min	None	None	None	None
Avg. Green (s)	76.5	22.8	54.6	16.1	21.7
g/C Ratio	NA	-0.01	NA	NA	NA
Cycles Skipped (%)	0	16	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	100	56	75	53	56
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	5.0	69.0	18.0	8.0	66.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None	None	None
Avg. Green (s)	6.5	85.5	10.0	10.9	67.5	10.0
g/C Ratio	-0.01	-0.01	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	71	3	9	15	0	9
Cycles @ Minimum (%)	3	0	3	0	0	3
Cycles Maxed Out (%)	0	97	3	12	57	3
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 4040: 195 EB/Ocean Park Rd

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	NBL
Maximum Green (s)	15.0	58.0	79.0	19.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None
Avg. Green (s)	15.9	66.9	119.8	9.9
g/C Ratio	-0.01	NA	-0.01	-0.01
Cycles Skipped (%)	3	0	25	22
Cycles @ Minimum (%)	3	0	0	0
Cycles Maxed Out (%)	15	100	66	0
Cycles with Peds (%)	0	0	0	0

Controller Summary
Average Cycle Length (s): NA

Number of Complete Cycles : 0

u.

Ocean Park Rd
Smithwheel Rd
Jeanette Ave
Irvin Ave
Dewey Ave
Olympa Ave
Oregon Ave
Harmon Ave
Oak St
Murphy Ave
Michaud Ave
Maple Ave
Charles Ave
Temple Ave
Melvin Ave
Orchard Road
Old Orchard Rd
Old Salt Rd
Hodgeman Ave
Goosefare Brook
Biddeford Saco Country Club
0.52
1.05
0.96
0.14
0.15
0.93
0.01
0.96
0.07
0.07
0.61
0.61
0.26
0.30
0.51
0.94
0.05
0.01
0.83
0.45
0.22
0.67
0.37
3.39
3.38
0.55
0.55
0.55
0.83
0.74
0.43
0.32
0.09
0.77
0.36
0.37
0.83

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:02	8:02	8:02	8:02	8:02	8:02
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3033	3178	3077	2983	2952	3044
Vehs Exited	3007	3070	2988	2909	2938	2982
Starting Vehs	163	123	114	101	138	125
Ending Vehs	189	231	203	175	152	188
Travel Distance (mi)	2742	2821	2726	2655	2679	2725
Travel Time (hr)	168.7	173.0	163.1	169.9	146.1	164.2
Total Delay (hr)	72.3	73.7	67.2	76.7	52.0	68.4
Total Stops	4645	4805	4533	4759	3903	4531
Fuel Used (gal)	105.0	108.0	102.6	103.5	98.0	103.4

Interval #0 Information Seeding

Start Time	6:57
End Time	7:02
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:02
End Time	8:02
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	3033	3178	3077	2983	2952	3044
Vehs Exited	3007	3070	2988	2909	2938	2982
Starting Vehs	163	123	114	101	138	125
Ending Vehs	189	231	203	175	152	188
Travel Distance (mi)	2742	2821	2726	2655	2679	2725
Travel Time (hr)	168.7	173.0	163.1	169.9	146.1	164.2
Total Delay (hr)	72.3	73.7	67.2	76.7	52.0	68.4
Total Stops	4645	4805	4533	4759	3903	4531
Fuel Used (gal)	105.0	108.0	102.6	103.5	98.0	103.4

2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	L	TR	LT	R	
Denied Del/Veh (s)									0.2
Total Del/Veh (s)	18.5	7.8	59.9	65.5	109.9	45.2	65.0	9.4	22.4

7: Ocean Park Rd & Reserve St Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.6
Total Del/Veh (s)	14.5	5.6	2.0	16.9	4.2

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by lane

Lane	EB	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	T	R	L	TR	LT	R	LT	R	
Denied Del/Veh (s)										0.7
Total Del/Veh (s)	21.2	7.8	1.5	32.8	11.8	52.0	34.0	48.6	16.8	12.3

16: Ocean Park Rd & Jeanette Ave Performance by lane

Lane	EB	EB	WB	SB	All
Movements Served	L	T	TR	LR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	63.0	1.7	9.2	206.0	5.4

28: Melvin Ave & Ocean Park Rd Performance by lane

Lane	EB	WB	All
Movements Served	TR	T	
Denied Del/Veh (s)			0.0
Total Del/Veh (s)	2.9	4.4	3.5

4040: 195 EB/Ocean Park Rd Performance by lane

Lane	EB	EB	WB	WB	NB	NB	All
Movements Served	T	R	L	T	L	R	
Denied Del/Veh (s)							0.9
Total Del/Veh (s)	90.3	15.0	28.5	3.9	69.1	2.2	37.9

Total Network Performance

Denied Del/Veh (s)	2.2
Total Del/Veh (s)	75.6

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	LT	R
Maximum Queue (ft)	359	241	122	285	180	154	126	341
Average Queue (ft)	246	94	15	126	55	65	38	135
95th Queue (ft)	392	187	63	228	132	126	90	282
Link Distance (ft)	348	348		1270	966		2075	
Upstream Blk Time (%)	3							
Queuing Penalty (veh)	18							
Storage Bay Dist (ft)			130			95		295
Storage Blk Time (%)				16	6	5		1
Queuing Penalty (veh)				3	7	2		1

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	B3	B3	SB
Directions Served	L	T	T		LR
Maximum Queue (ft)	50	296	542	432	35
Average Queue (ft)	6	82	204	35	7
95th Queue (ft)	34	261	615	251	28
Link Distance (ft)		224	511	511	252
Upstream Blk Time (%)		3	2	0	
Queuing Penalty (veh)		42	11	2	
Storage Bay Dist (ft)	100				
Storage Blk Time (%)		6			
Queuing Penalty (veh)		0			

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	198	290	36	56	190	72	55	60	116
Average Queue (ft)	110	205	6	29	159	28	19	20	48
95th Queue (ft)	212	351	24	57	221	61	46	49	90
Link Distance (ft)		198	198		95	419	419	950	
Upstream Blk Time (%)	0	9			26				
Queuing Penalty (veh)	0	69			223				
Storage Bay Dist (ft)	200			25					200
Storage Blk Time (%)	0	9		32	27				
Queuing Penalty (veh)	6	19		267	14				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	38	130	300	35
Average Queue (ft)	8	7	116	6
95th Queue (ft)	30	61	308	25
Link Distance (ft)		95	251	548
Upstream Blk Time (%)		0	6	
Queuing Penalty (veh)		6	55	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	13	1		
Queuing Penalty (veh)	163	0		

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB	WB
Directions Served	TR	T
Maximum Queue (ft)	324	344
Average Queue (ft)	45	47
95th Queue (ft)	204	214
Link Distance (ft)	251	348
Upstream Blk Time (%)	2	1
Queuing Penalty (veh)	20	6
Storage Bay Dist (ft)		
Storage Blk Time (%)		5
Queuing Penalty (veh)		0

Intersection: 4040: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	1549	1158	292	231	97	11
Average Queue (ft)	805	208	143	76	34	0
95th Queue (ft)	1574	867	249	194	77	8
Link Distance (ft)	2073	2073		511	962	
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)			400			250
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 935

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Phase	2	4	5	6	8
Movement(s) Served	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	97.0	21.0	70.0	21.0	21.0
Minimum Green (s)	4.0	4.0	5.0	4.0	4.0
Recall	C-Min	None	None	None	None
Avg. Green (s)	90.3	26.1	65.8	18.8	23.8
g/C Ratio	NA	-0.01	NA	NA	NA
Cycles Skipped (%)	0	12	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	100	50	57	36	50
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	5.0	89.0	18.0	11.0	83.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None	None	None
Avg. Green (s)	6.5	99.5	9.5	11.2	73.8	9.5
g/C Ratio	-0.01	-0.01	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	70	7	7	9	0	7
Cycles @ Minimum (%)	4	0	3	3	0	3
Cycles Maxed Out (%)	4	93	3	13	39	3
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 4040: 195 EB/Ocean Park Rd

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	NBL
Maximum Green (s)	19.0	70.0	95.0	23.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None
Avg. Green (s)	19.2	78.4	131.7	10.2
g/C Ratio	-0.01	NA	-0.01	-0.01
Cycles Skipped (%)	3	0	21	18
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	17	100	64	0
Cycles with Peds (%)	0	0	0	0

Controller Summary
Average Cycle Length (s): NA

Number of Complete Cycles : 0

Attachment C
Lane Uses

Smaller Roundabout

Ocean Park Rd
Reserve St
Jeanette Ave
Dewey Ave
Olympia Ave
Ocean Park Rd
Hodgeman Ave
Melvin Ave
Orchard Road
5

Smaller Signal

Ocean Park Rd
Jeanette Ave
Melvin Ave
Orchard Road
Goosefare Brook
Dewey Ave
Old Salt Rd
Wilbur Ave
Old Orchard Rd

Modified Roundabout

Ocean Park Rd
Jeanette Ave
Erwin Ave
Erwin Ave
Dewey Ave
Temple Ave
Melvin Ave
Wilbur Ave
Orchard Road
Goosefare Brook

Modified Signal

Ocean Park Rd
Reserve St
Ervin Ave
Jeanette Ave
Dewey Ave
Olympia Ave
Old Salt Rd
Old Orchard Rd
Melvin Ave
Wilbur Ave
Orchard Road
Goosefare Brook
0.41
0.68
0.03
0.03
0.46
0.46
0.17
0.23
0.17
0.17
0.54
0.13
0.41
0.41
0.70
0.33
0.11
0.66
0.01
0.72
0.30
0.71
0.04
0.01
0.62
0.41
0.62
0.26
0.13
0.19
0.05
0.61
0.27
0.27
0.47

OOB/SACO PPI STUDY – WIN 26660.00
TEAM MEETING
November 13, 2023

Meeting Minutes

Location - City of Saco Public Works

Attendees - Patrick Fox, Marty Rooney, Steve Landry, Randy Illian, Diana Asanza, Michael Foster, Don Ettinger, Randy Dunton

The following is intended to capture the overall discussion points from this team meeting.

Smithwheel Road Intersection:

Steve Landry stated that after internal review, MaineDOT concluded that the intersection could be signalized as an isolated intersection. There was consensus that signalization (isolated or coordinated) would be the preferred alternative. In signalizing the intersection, the campground should shift its driveway to opposite Smithwheel Road. The comment was also made that the midblock crosswalks in the area would have to be relocated and included in the signalized intersection, which could improve pedestrian safety in the area. Steve supported a separate right turn lane into the campground to remove larger vehicles from the through traffic stream, particularly if a single through lane is proposed.

It should be noted that neither the town nor DOT have received any recent information on the planned campground expansion.

Halfway Intersection:

This intersection was discussed in detail and the two potential alternatives of signalization or roundabout. Signalization was the preferred option to move forward with for the following reasons: public input, abutter impacts, costs, and simplification of the intersection. It was discussed that the size of the intersection could be reduced from that originally evaluated and shown in the 2021 Halfway PPI Study. The reason for this reduction was the upgrade to newer traffic volumes that were less.

There was a preference to make the major volume movements through the intersection the through movements if possible.

Ocean Park Road / I-195 Intersection:

This intersection drew the most discussion. The primary concerns of this intersection include the speed of vehicles, traveling in-bound heading toward Old Orchard Beach and the weaving of traffic between I-195 inbound and Ocean Park Road inbound. There were three alternatives discussed for this intersection including unsignalized, signalized, and roundabout. In all three options there was a consensus to shift the existing Ocean Park Road slip ramp into the intersection, thus reducing their speed and allowing more length to weave. There was also a consensus to provide a right turn lane from I-195 inbound onto Ocean Park Road. This would allow for the elimination of the through movement exiting the I-195 ramp at Route 1 in Saco, which will improve the safety of this high crash location.

Steve's preference for this intersection was to keep it unsignalized, remove the outbound left turn lane onto Ocean Park Road, provide only a single through lane in each direction for inbound and outbound

traffic on I-195, "T" up the intersection to remove the Ocean Park Road slip ramp, and provide a right turn lane on I-195 inbound for vehicles turning onto Ocean Park Road. Some concerns were raised regarding removing the outbound left turn lane on I-195 and what the traffic impacts would be at the Route 1 off ramp and what the business impacts would be on Ocean Park Road. Marty suggested a higher-level qualitative evaluation (red, yellow, green) on removing the left turn lane and a similar evaluation for comparing the unsignalized, signalized and roundabout options for this intersection.

There was consensus that some form of traffic calming and/or gateway treatments be provided west of this intersection to slow vehicles down. See also "General Comments" below.

I-195 Ramp / Route 1 Intersection (Saco):

The primary discussion point for this intersection was if there was any interest in pursuing an alternative (under an amended contract) for the introduction of another ramp in this general location that would connect directly with Ocean Park Road. Both the City of Saco and Town of Old Orchard Beach stated it was their preference to not move forward in studying a new ramp in Saco and would prefer to continue moving forward with the current study scope.

General Comments:

Corridor Size - there was a question raised if MaineDOT would allow for downsizing of the core of the study area. Marty expressed that it is important to acknowledge that there is a difference between MaineDOT accepting a design and contributing funds for a design. The MaineDOT would weigh carefully what benefits were being gained by reduction (and potential decrease in mobility) in the throughput of the corridor and the benefits obtained by that reduction.

Benefit / Cost Assessment – there was discussion on whether to add to the scope (under an amended contract) a B/C evaluation. The recommendation was to wait until more of the study was refined and decide at that point, "based on data driven safety and mobility benefits", on how to move forward regarding the B/C evaluation.

Interstate Limits - Marty clarified that I-195 ends at the Route 1 overpass, which allows for traffic calming or lane reduction options between the overpass and the intersection with Ocean Park Road that would not otherwise be allowed if it were an interstate system. There was consensus that something needs to be done within this section to slow vehicles down.

Next Steps:

Gorrill Palmer will review the information gathered from this meeting and will proceed with evaluating options and development of concepts. A follow-up client meeting may be requested to clarify any outstanding items. The client team would like to have a public meeting on this planning study in January, if possible.

GORRILL PALMER

300 Southborough Drive, Suite 200
South Portland, Maine 04106
207.772.2515

MEMORANDUM
OCEAN PARK ROAD STUDY
TRAFFIC SUMMARY OF OVERALL STUDY
OLD ORCHARD BEACH-SACO, ME
WIN 26660.00
May 24, 2024

PURPOSE OF MEMORANDUM

To date, the overall Ocean Park Road Study has completed five significant sub-studies, numerous evaluations, and has had multiple stakeholder meetings. The purpose of that effort was to refine the options to meet the purpose and need for the stakeholders. After significant effort by all those involved, the options have been narrowed to a select few, which are described and further refined in this summary memorandum.

The purpose of this memorandum is to present and further refine the options that have resulted from the effort to date. This further refinement of options will allow the Town, with support from MaineDOT, to move forward and make an informed decision on the preferred option. This memorandum does not re-iterate previous decisions, or evaluations that lead to this juncture, but instead presents the current options that have come from all the previous efforts and discussions.

This memorandum will provide a summary of the following:

- Goals for Corridor
- Potential Options
- Forecast Operations
- Comparison of Options

GOALS FOR CORRIDOR

The following are goals & challenges that were identified early in the study that needed to be considered in generating options and should be used to further refine the remaining options.

Goals for Study Area (In no particular order):

1. Improve pedestrian accommodations and safety, especially for those crossing Ocean Park Road.
2. Provide capacity through the corridor.
3. Reduce driver confusion and eliminate unnecessary weaving of vehicles between travel lanes.
4. Improve the safety and operations for vehicles using Smithwheel Road.
5. Reduce vehicular speeds traveling from I-195 toward OOB.
6. Provide Ocean Park Road left turning traffic a place to queue removed from the through lanes.

Assumptions:

1. It should be noted that for all options, the assumption was made that the campground located on the southerly side of Ocean Park Road would shift their existing driveway to align opposite Smithwheel Road.

2. Based on previous efforts and evaluations within this study, it was identified that Smithwheel Road could become signalized if certain conditions were satisfied. All potential options have conceptually satisfied the criteria needed to signalize Smithwheel Road and have included signalization of this intersection in each of the potential options.

3. One of the primary concerns for this corridor is to provide some option to reduce the speed of vehicles on I-195 inbound toward Ocean Park Road. For the purposes of this evaluation, it is assumed that all options will include a roadway chicane as inbound traffic leaves I-195 and approaches Ocean Park Road.

POTENTIAL OPTIONS

For the purposes of this summary memorandum, the options have been presented and discussed as five overall total options. However, the reader should realize that in identifying the final layout for the corridor, it may be possible to take a specific attribute from one option and incorporate that attribute within another option.

The five options have been further categorized into "normal" footprint and "reduced" footprint. (Attachment A). The primary difference between the "normal" and "reduced" footprints is the number of travel lanes within the "core" of the study area. The "normal footprint primarily includes a cross section of two inbound travel lanes, some form of left turn treatment in the middle, and a single outbound travel lane. The "reduced" footprint is similar to the "normal" footprint but only provides a single inbound travel lane instead of two. Those categories are defined in more detail as follows:

"Normal" footprint (Options 1-3):

Options 1-3 are categorized as "normal" footprints. All three options include signalization of both the Smithwheel Road intersection in the middle of the study area and the "halfway intersection" (Ocean Park Road / Old Orchard Road / Temple Avenue / Saco Avenue) located at the east end of the corridor. The primary difference between the three options is the intersection treatment of where I-195 intersects with Ocean Park Road at the easterly end of the corridor. The intersection treatment for the three options is described in more detail as follows:

Option 1: This option includes a two-lane roundabout at the intersection with two approach lanes on each approach. The I-195 eastbound approach includes a through lane and a through/right lane, the Ocean Park Road westbound (out bound from OOB) includes a through lane and a left turn lane, and the Ocean Park Road northbound includes a left lane and a right lane.

Option 2: This option includes signalization of the intersection. Inbound and outbound approaches both include two approach lanes, and the Ocean Park Road northbound approach also includes two approach lanes (separate left and right).

Option 3: This option includes an unsignalized intersection with the inbound and outbound lanes being free flow and Ocean Park Road northbound left turn lane being STOP controlled. The Ocean Park Road northbound right turn lane becomes a dedicated right turn lane onto Ocean Park Road eastbound with its own receiving lane.

"Reduced" footprint (Options 4-5):

Options 4-5 are categorized as "reduced" footprints. Similar to the "normal" footprints, both options include signalization of both the Smithwheel Road intersection in the middle of the study area and the "halfway intersection" (Ocean Park Road / Old Orchard Road / Temple Avenue / Saco Avenue) located at the east end of the corridor. The primary difference between the two "reduced" footprint options is the intersection treatment of where I-195 intersects with Ocean Park Road at the easterly end of the corridor. The intersection treatment for the two options is described in more detail as follows:

Option 4: This option includes signalization of the intersection. Inbound and outbound approaches both include two approach lanes as well as the Ocean Park Road northbound approach that also includes two approach lanes.

Option 5: This option includes an unsignalized intersection with the inbound and outbound lanes being free flow and Ocean Park Road northbound approaches (both lanes) being STOP controlled.

Based on discussions with the Town and MaineDOT prior to this memorandum, it was determined that the "reduced" footprints would not meet the overall long-term vision and needs of the corridor, so Options 4 & 5 were eliminated.

FORECAST OPERATIONS

One of the previous studies completed for this corridor involved in-depth capacity analysis using the Syncho/Simtraffic computer modeling software for the design year of 2045. That previous capacity analysis included numerous scenarios and roadway configurations. That study resulted in the elimination of several options and scenarios. It was clear from the previous studies that the more difficult time-period to accommodate is the PM peak hour. Therefore, this refinement capacity analysis is based on the design year 2045 and the PM peak hour of adjacent street traffic during the peak summer months of the year. Due to the high seasonal fluctuation along this corridor throughout the year, it would be expected that for the majority of the year, conditions would be significantly better than that identified from this evaluation.

The level of service criteria for unsignalized / roundabout and signalized intersections is presented in the following Tables 1 & 2 respectively.

Table 1 - Level of Service Criteria for Unsignalized & Roundabout Intersections

Level of Service	Control Delay per Vehicle (s)
A	Less than 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater than 50.0

Table 2 - Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay per Vehicle (s)
A	Less than 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	Greater than 80.0

Based on the information provided in previous studies and sections herein, the options being evaluated (from west to east on the corridor) are as follows:

- Option 1: Roundabout – Signal – Signal
- Option 2: Signal – Signal – Signal
- Option 3: Unsignalized – Signal – Signal

The following Table 3 summarizes the delay (rounded up to the nearest second) and LOS of the 2045 PM peak hour capacity analysis for the above three options (Printouts in Attachment B). It should be noted that some adjustments were made (i.e. delay added) to include delay for closely spaced intersections where traffic queued into upstream intersections.

Table 3 – 2045 PM Peak Hour Capacity Analysis Summary – Delay / Level of Service

Intersection / Approach	Option (seconds delay – LOS)		
	1	2	3
I-195 / OPR	**Roundabout**	**Signal**	**Unsignalized***
I-195 EB	8 A	37 D	5 A
OPR WB	6 A	23 C	10 A
OPR NB	15 B	23 C	33 D
Total Intersection	**9 A**	**29 C**	**---**
OPR / Smithwheel	**Signal**	**Signal**	**Signal**

OPR EB	9 A	9 A	9 A
OPR WB	16 B	16 B	18 B
Campground NB	25 C	24 C	24 C
Smithwheel SB	20 B	22 C	21 C
Total Intersection	**10 A**	**10 A**	**10 A**
Halfway Intersection	**Signal**	**Signal**	**Signal**
OPR EB	16 B	16 B	18 B
Temple WB	60 E	54 D	61 E
Old Orchard Rd NB	56 E	60 E	59 E
Saco Ave SB	15 B	17 B	15 B
Total Intersection	**22 C**	**22 C**	**23 C**

OPR = Ocean Park Road
EB=Eastbound, WB=Westbound, NB=Northbound, SB=Southbound

*Based on a review of the computer modeling, there were two concerns identified for an unsignalized intersection at this location that are not apparent from only a review of the results in Table 3; 1) the outbound westbound left turn on OPR turning onto OPR and 2) the northbound left turn from OPR traveling toward I-195. The concern with both movements is the limited opportunity for those vehicles to complete their maneuver due to the high volume of conflicting traffic. If these left turn movements should exceed their available left turning storage and block the adjacent through movements, that could have significant negative impacts on both operations and safety of the intersection.

In our opinion, Option 3 should not be pursued in its currently proposed configuration.

Options 1 & 2 both provide acceptable operations. However, this is only an operations assessment and does not include other factors that should be considered in deciding which option to pursue. Therefore, which option to pursue cannot be made solely on this operations evaluation.

COMPARISON OF OPTIONS

This section compares the options to the goals of the study as identified in a previous section. Those goals for the options are repeated as follows:

1. Improve pedestrian accommodations and safety, especially for those crossing Ocean Park Road.
2. Provide capacity through the corridor.
3. Reduce driver confusion and eliminate unnecessary weaving of vehicles between travel lanes.
4. Improve the safety and operations for vehicles using Smithwheel Road.
5. Reduce vehicular speeds traveling from I-195 toward OOB. As previously noted in "Assumptions", some form of traffic calming is assumed for each option.
6. Provide Ocean Park Road left turning traffic a place to queue removed from the through lanes.

The following Table 4 provides a qualitative evaluation of each of the options and identifies how well they meet the listed goals above. Although the reduced footprint options were previously eliminated, they are included in this comparison so the reader can see how they would have compared if not eliminated. For the comparison below, green indicates it meets the identified goal, yellow means there is some improvement toward the goal but not as well as the green, and red means it does not meet the goal.

Table 4 – Option Comparisons

Goals	Options				
	Normal Footprints			Reduced Footprints	
	1	2	3	4	5
Ped Accom. & Safety					
Provide Capacity					
Reduce Confusion & Weaving					
Smithwheel Operations					
Reduce Speeds					
Provide Left Turn Accom.					

Results in Table 4 reinforce the elimination of the reduced footprint options, since one of the primary goals for the eventual selected option to move forward in this process, especially for MaineDOT, was that the capacity of the corridor be maintained at a minimum. Since these options only provide a single through lane through the corridor, their capacity is restricted compared to the existing condition.

Not included in the above table is a goal that would specifically cover the concerns identified previously in the capacity analysis for Option 3 at the OPR / I-195 intersection. It is our opinion that the concerns identified were significant enough to eliminate this option in its currently proposed configuration.

As can be seen from the qualitative comparison in Table 4 and the discussions previously herein; options 3, 4, and 5 do not provide positive impacts toward all the goals or include significant deficiencies enough such that it is our recommendation that these three options not be pursued.

Options 1 & 2 make improvements on all six goals and no "fatal flaws" have been identified that would eliminate either of them from being pursued. Therefore, in our opinion, options 1 & 2 should remain as potential options to pursue.

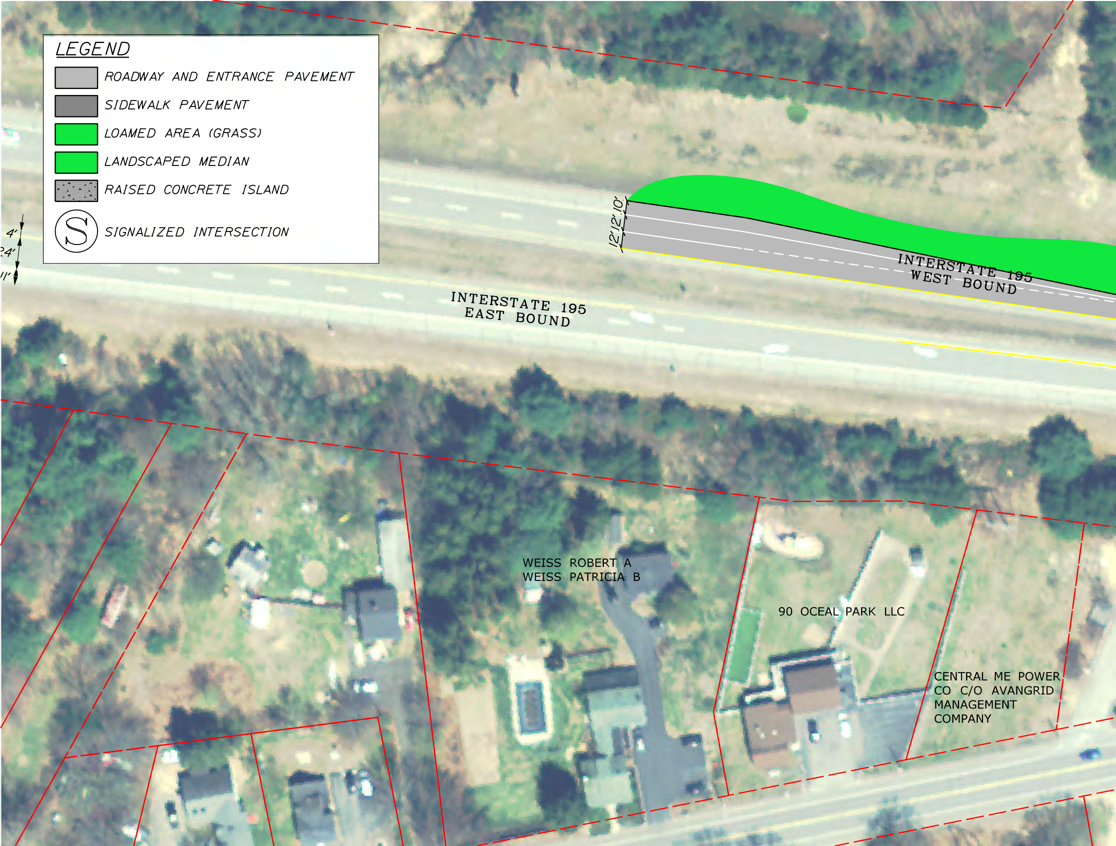
ATTACHMENTS

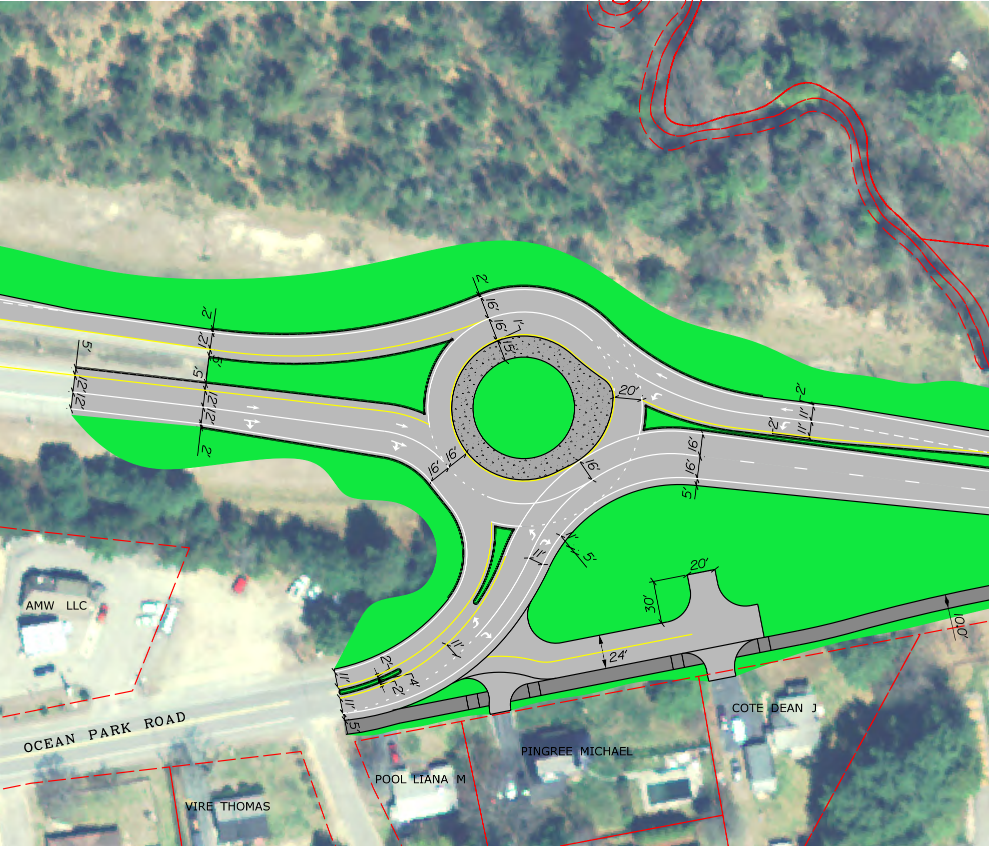
A – Options 1-5
B – Computer Printouts

u:\4015_i-195 & ocean park road study\n traffic\traffic summary memo - 5-24-24.doc

Attachment A

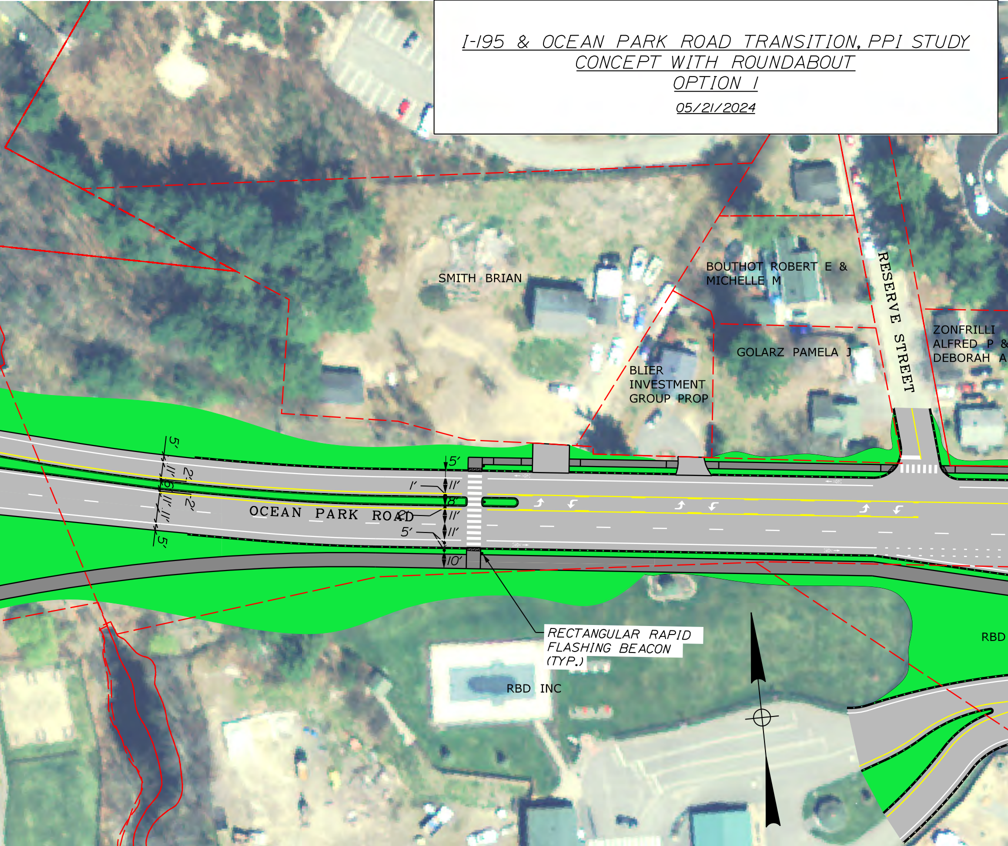
Options 1 - 5

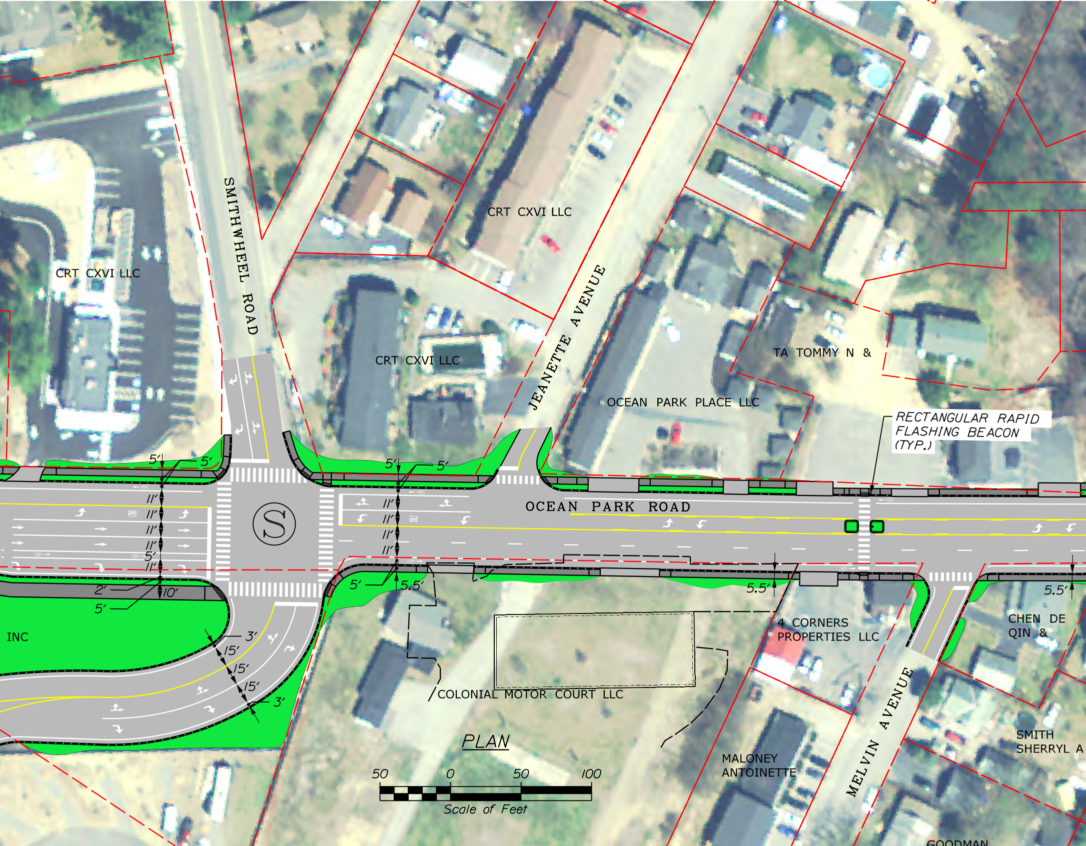

LEGEND
ROADWAY AND ENTRANCE PAVEMENT
SIDEWALK PAVEMENT
LOAMED AREA (GRASS)
LANDSCAPED MEDIAN
RAISED CONCRETE ISLAND
S
SIGNALIZED INTERSECTION
4'
24'
11'
12'
12'
10'
INTERSTATE 195
WEST BOUND
INTERSTATE 195
EAST BOUND
WEISS ROBERT A
WEISS PATRICIA B
90 OCEAL PARK LLC
CENTRAL ME POWER
CO C/O AVANGRID
MANAGEMENT
COMPANY


2'
12'
5'
5'
12'
12'
12'
2'
2'
16'
16'
1'
15'
20'
16'
16'
16'
2'
11'
11'
2'
16'
16'
5'
11'
5'
20'
30'
24'
10.0'
11'
2'
4'
2'
11'
11'
5'
AMW LLC
OCEAN PARK ROAD
COTE DEAN J
PINGREE MICHAEL
POOL LIANA M
VIRE THOMAS

I-195 & OCEAN PARK ROAD TRANSITION, PPI STUDY
CONCEPT WITH ROUNDABOUT
OPTION 1

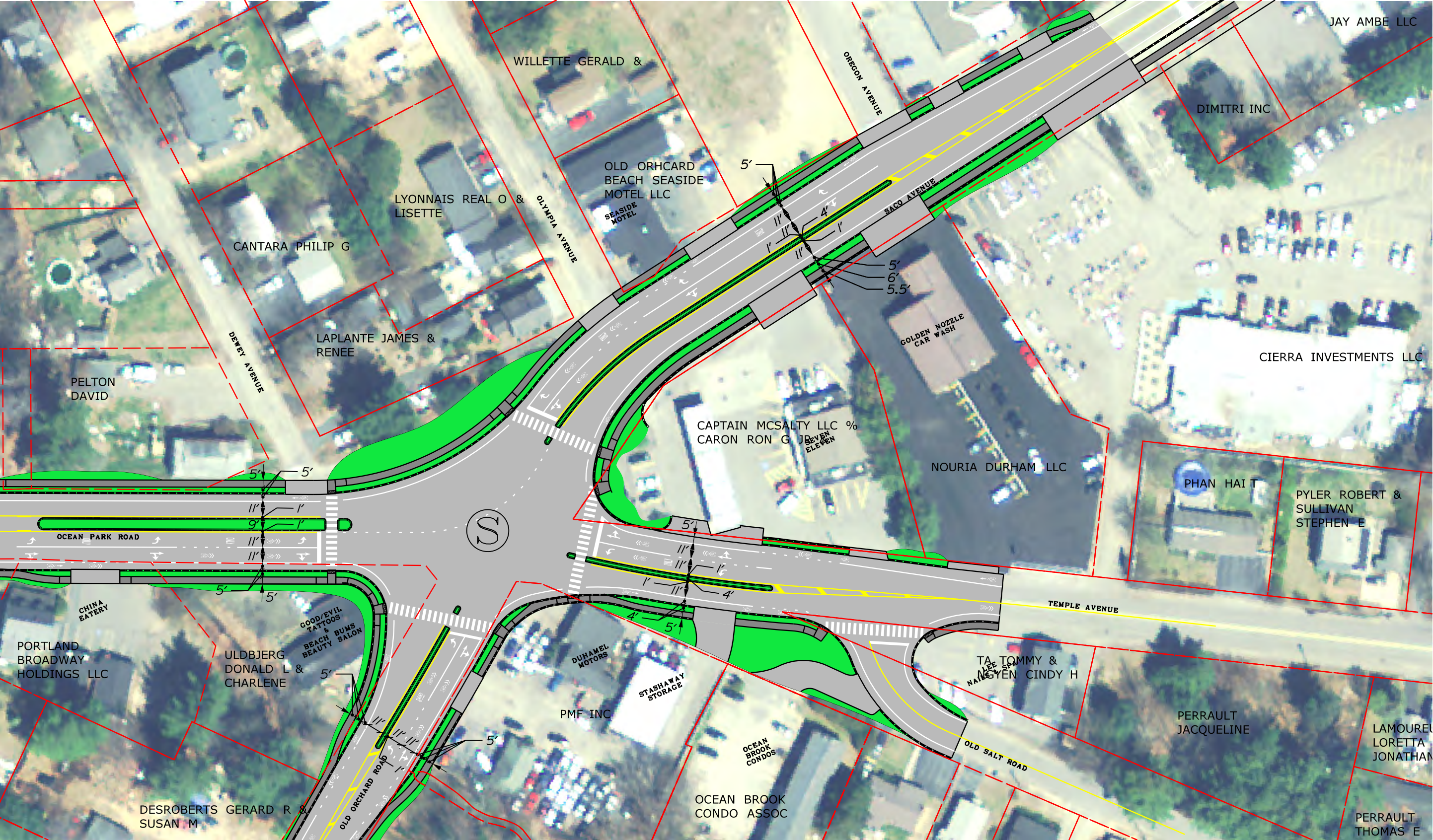
05/21/2024

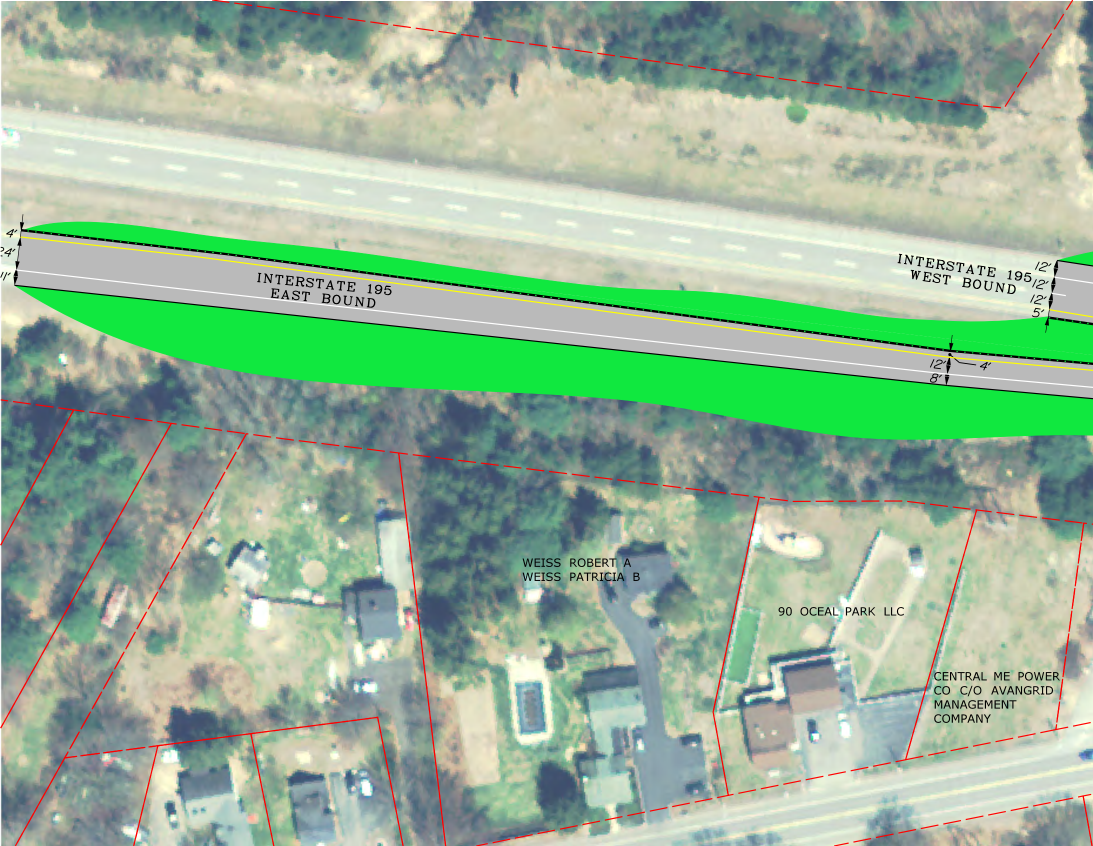

SMITH BRIAN
BOUTHOT ROBERT E &
MICHELLE M
RESERVE STREET
ZONFRILLI
ALFRED P &
DEBORAH A
GOLARZ PAMELA J
BLIER
INVESTMENT
GROUP PROP
5'
11'
2'
6'
2'
11'
11'
5'
OCEAN PARK ROAD
5'
1'
11'
8'
2'
11'
5'
11'
10'
RECTANGULAR RAPID
FLASHING BEACON
(TYP.)
RBD INC
RBD

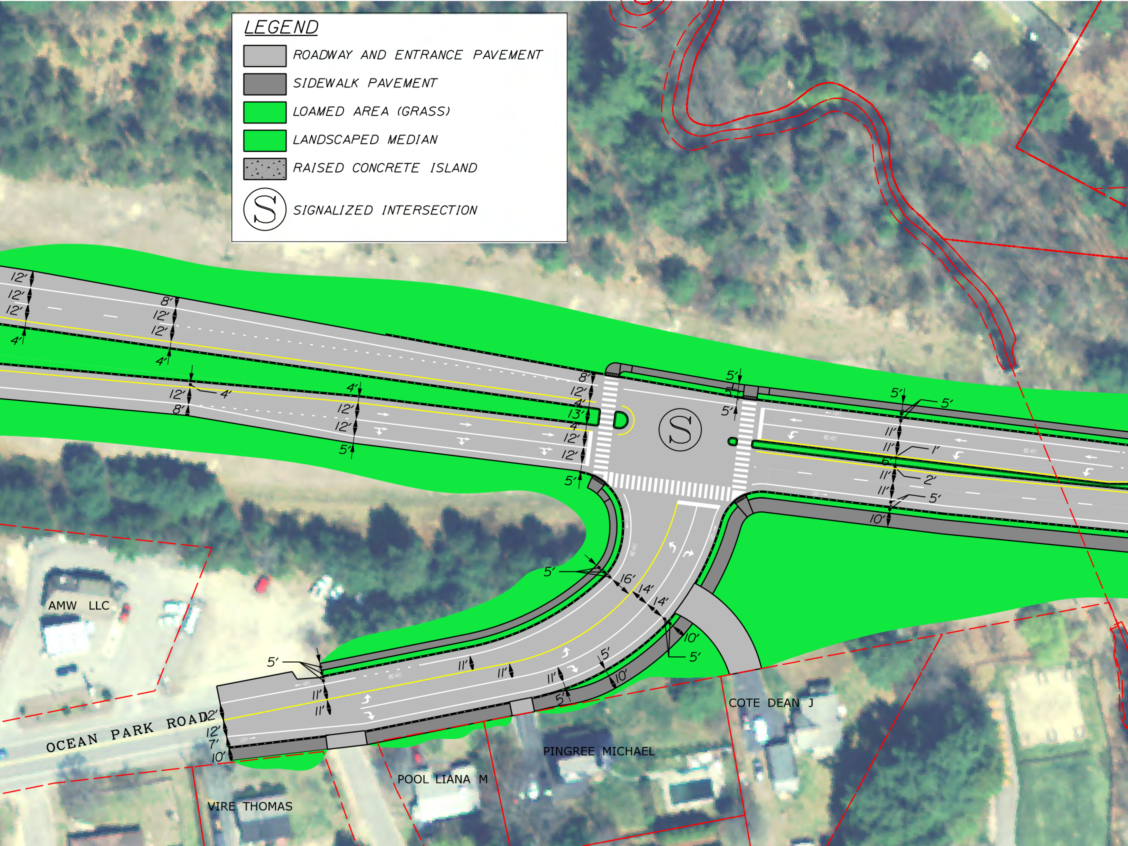


SMITHWHEEL ROAD
CRT CXVI LLC
CRT CXVI LLC
CRT CXVI LLC
JEANETTE AVENUE
TA TOMMY N &
OCEAN PARK PLACE LLC
RECTANGULAR RAPID FLASHING BEACON (TYP.)
OCEAN PARK ROAD
5′
5′
5′
5′
11′
11′
11′
11′
5′
11′
2′
10′
5′
11′
11′
11′
11′
11′
5′
5.5′
5.5′
5.5′
3′
15′
15′
15′
3′
INC
4 CORNERS PROPERTIES LLC
CHEN DE QIN &
COLONIAL MOTOR COURT LLC
MELVIN AVENUE
MALONEY ANTOINETTE
SMITH SHERRYL A
GOODMAN
50
0
50
100
Scale of Feet

PLAN

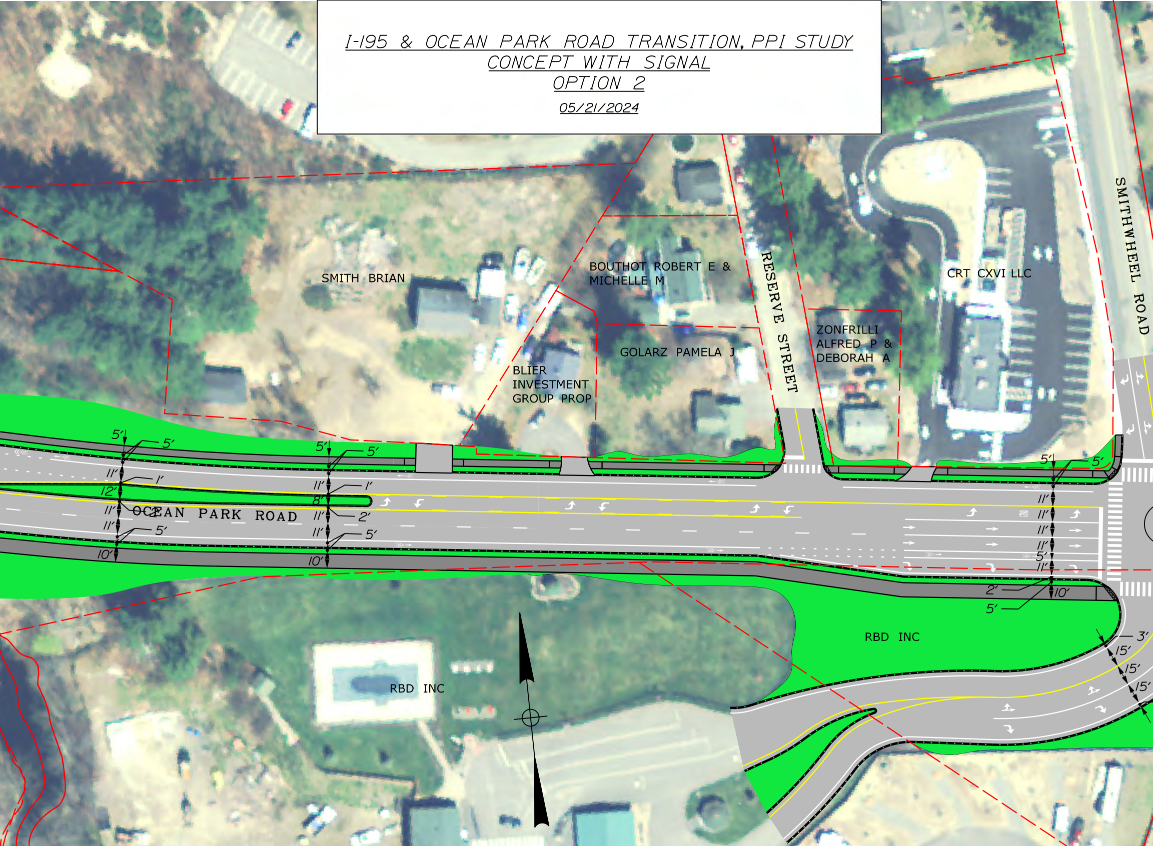

JAY AMBE LLC
WILLETTE GERALD &
OREGON AVENUE
DIMITRI INC
OLD ORHCARD BEACH SEASIDE MOTEL LLC
SEASIDE MOTEL
LYONNAIS REAL O & LISETTE
OLYMPIA AVENUE
SACO AVENUE
CANTARA PHILIP G
GOLDEN NOZZLE CAR WASH
CIERRA INVESTMENTS LLC
LAPLANTE JAMES & RENEE
DEWEY AVENUE
PELTON DAVID
CAPTAIN MCSALTY LLC % CARON RON G JR
SEVEN ELEVEN
NOURIA DURHAM LLC
PHAN HAI T
PYLER ROBERT & SULLIVAN STEPHEN E
S
OCEAN PARK ROAD
TEMPLE AVENUE
CHINA EATERY
GOOD/EVIL TATTOOS & BEACH BUMS BEAUTY SALON
PORTLAND BROADWAY HOLDINGS LLC
ULDBJERG DONALD L & CHARLENE
DUHAMEL MOTORS
STASHAWAY STORAGE
PMF INC
TA TOMMY & NGUYEN CINDY H
LEE NAILS & SPA
PERRAULT JACQUELINE
LAMOUREU LORETTA JONATHA
OLD SALT ROAD
OCEAN BROOK CONDOS
OCEAN BROOK CONDO ASSOC
DESROBERTS GERARD R & SUSAN M
PERRAULT THOMAS E
OLD ORCHARD ROAD
5′
4′
11′
11′
1′
1′
11′
5′
6′
5.5′
5′
5′
11′
1′
9′
1′
11′
11′
5′
5′
5′
11′
11′
1′
1′
11′
4′
4′
5′
5′
11′
11′
11′
1′
5′

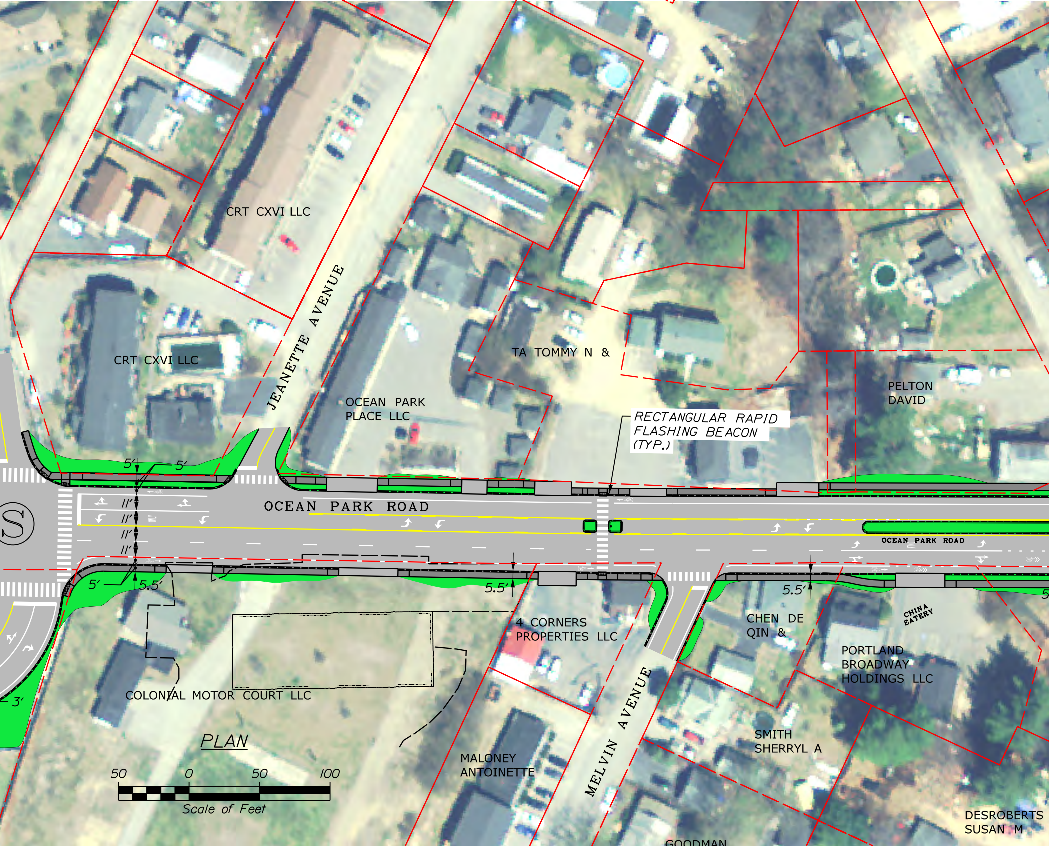

4'
24'
11'
INTERSTATE 195
EAST BOUND
INTERSTATE 195
WEST BOUND
12'
12'
12'
5'
12'
4'
8'
WEISS ROBERT A
WEISS PATRICIA B
90 OCEAL PARK LLC
CENTRAL ME POWER
CO C/O AVANGRID
MANAGEMENT
COMPANY


LEGEND
ROADWAY AND ENTRANCE PAVEMENT
SIDEWALK PAVEMENT
LOAMED AREA (GRASS)
LANDSCAPED MEDIAN
RAISED CONCRETE ISLAND
S SIGNALIZED INTERSECTION
OCEAN PARK ROAD
AMW LLC
COTE DEAN J
PINGREE MICHAEL
POOL LIANA M
VIRE THOMAS

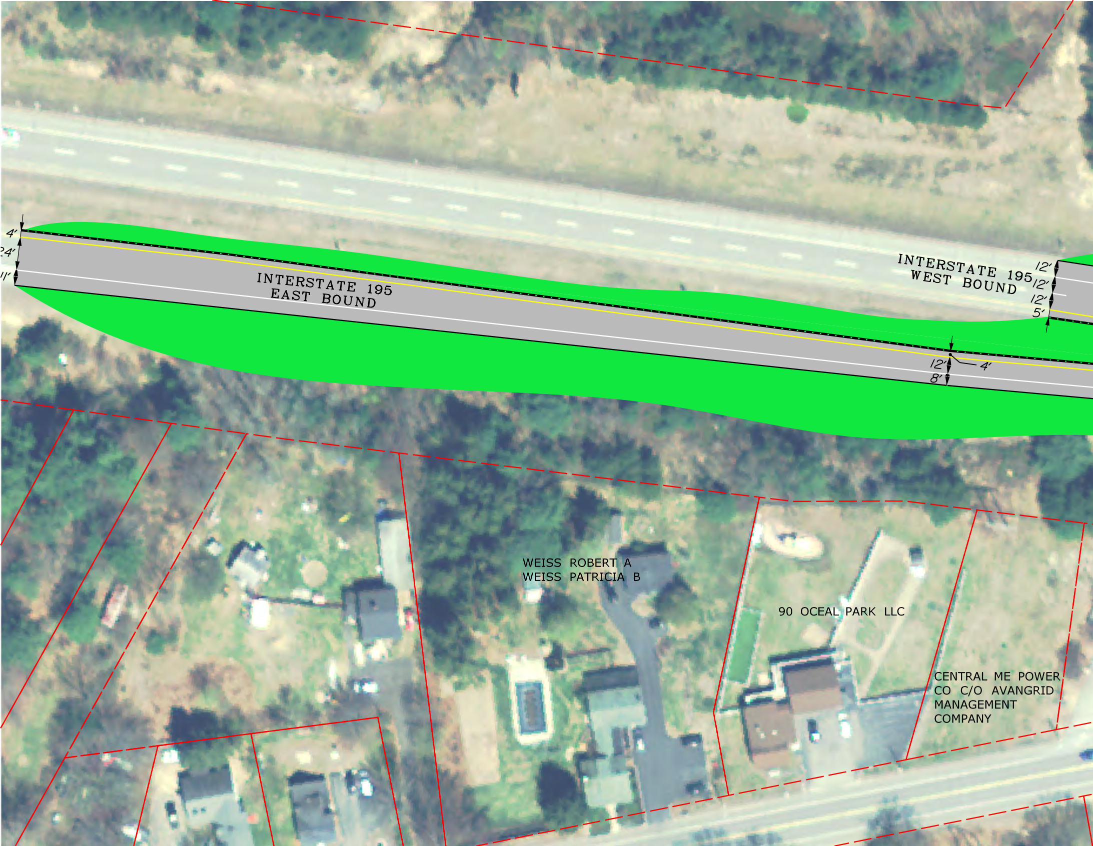
I-195 & OCEAN PARK ROAD TRANSITION, PPI STUDY
CONCEPT WITH SIGNAL
OPTION 2

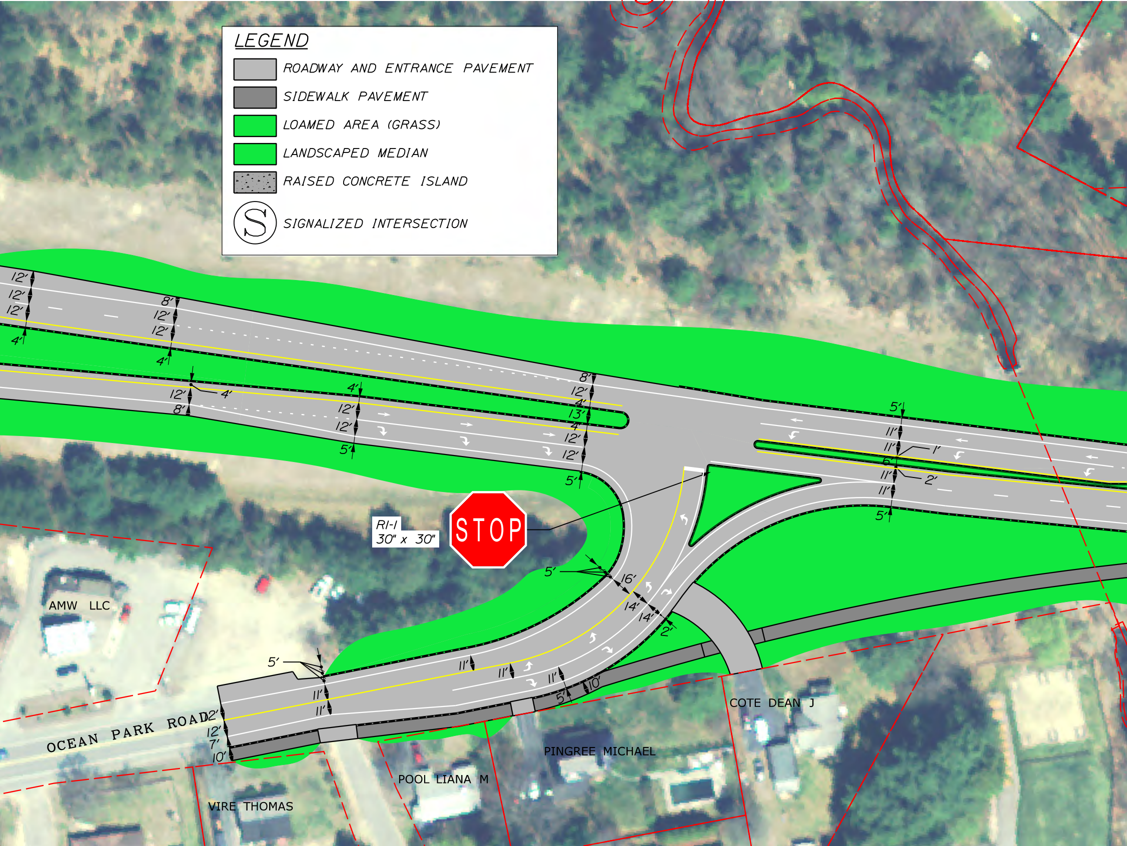
05/21/2024


SMITH BRIAN
BOUTHOT ROBERT E & MICHELLE M
RESERVE STREET
CRT CXVI LLC
SMITHWHEEL ROAD
BLIER INVESTMENT GROUP PROP
GOLARZ PAMELA J
ZONFRILLI ALFRED P & DEBORAH A
OCEAN PARK ROAD
RBD INC
RBD INC
5'
5'
11'
1'
12'
11'
11'
5'
10'
5'
5'
11'
1'
8'
11'
2'
11'
5'
10'
5'
5'
11'
11'
11'
11'
5'
11'
2'
10'
5'
3'
15'
15'
15'


CRT CXVI LLC
CRT CXVI LLC
JEANETTE AVENUE
TA TOMMY N &
OCEAN PARK PLACE LLC
PELTON DAVID
RECTANGULAR RAPID FLASHING BEACON (TYP.)
5′
5′
11′
11′
11′
11′
OCEAN PARK ROAD
OCEAN PARK ROAD
5′
5.5′
5.5′
5.5′
5
3′
4 CORNERS PROPERTIES LLC
CHEN DE QIN &
CHINA EATERY
PORTLAND BROADWAY HOLDINGS LLC
COLONIAL MOTOR COURT LLC
MELVIN AVENUE
SMITH SHERRYL A
MALONEY ANTOINETTE
DESROBERTS SUSAN M
GOODMAN
PLAN
50
0
50
100
Scale of Feet

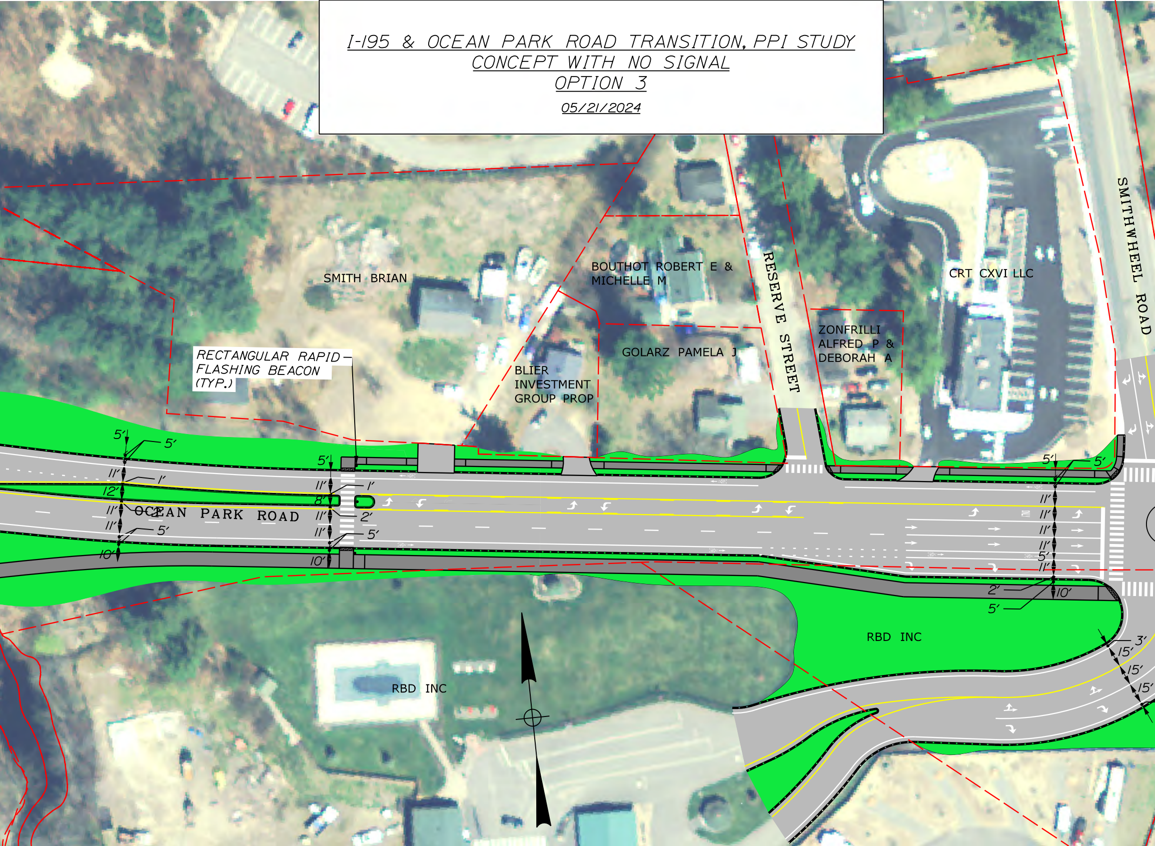
JAY AMBE LLC
WILLETTE GERALD &
OREGON AVENUE
DIMITRI INC
5′
4′
1′
11′
11′
1′
11′
5′
6′
5.5′
OLD ORHCARD BEACH SEASIDE MOTEL LLC
SEASIDE MOTEL
SACO AVENUE
LYONNAIS REAL O & LISETTE
OLYMPIA AVENUE
CANTARA PHILIP G
GOLDEN NOZZLE CAR WASH
CIERRA INVESTMENTS LLC
LAPLANTE JAMES & RENEE
DEWEY AVENUE
CAPTAIN MCSALTY LLC % CARON RON G JR
SEVEN ELEVEN
NOURIA DURHAM LLC
PHAN HAI T
PYLER ROBERT & SULLIVAN STEPHEN E
5′
5′
11′
1′
9′
1′
11′
11′
5′
S
5′
11′
11′
1′
1′
11′
4′
4′
5′
TEMPLE AVENUE
GOOD/EVIL TATTOOS & BEACH BUMS BEAUTY SALON
ULDBJERG DONALD L & CHARLENE
DUHAMEL MOTORS
STASHAWAY STORAGE
TA TOMMY & NGYEN CINDY H
LEE SPA NAIL
PMF INC
PERRAULT JACQUELINE
LAMOUREU LORETTA JONATHAN
5′
11′
11′
11′
1′
5′
OLD SALT ROAD
OCEAN BROOK CONDOS
OCEAN BROOK CONDO ASSOC
GERARD R &
LD ORCHARD ROAD
PERRAULT THOMAS E

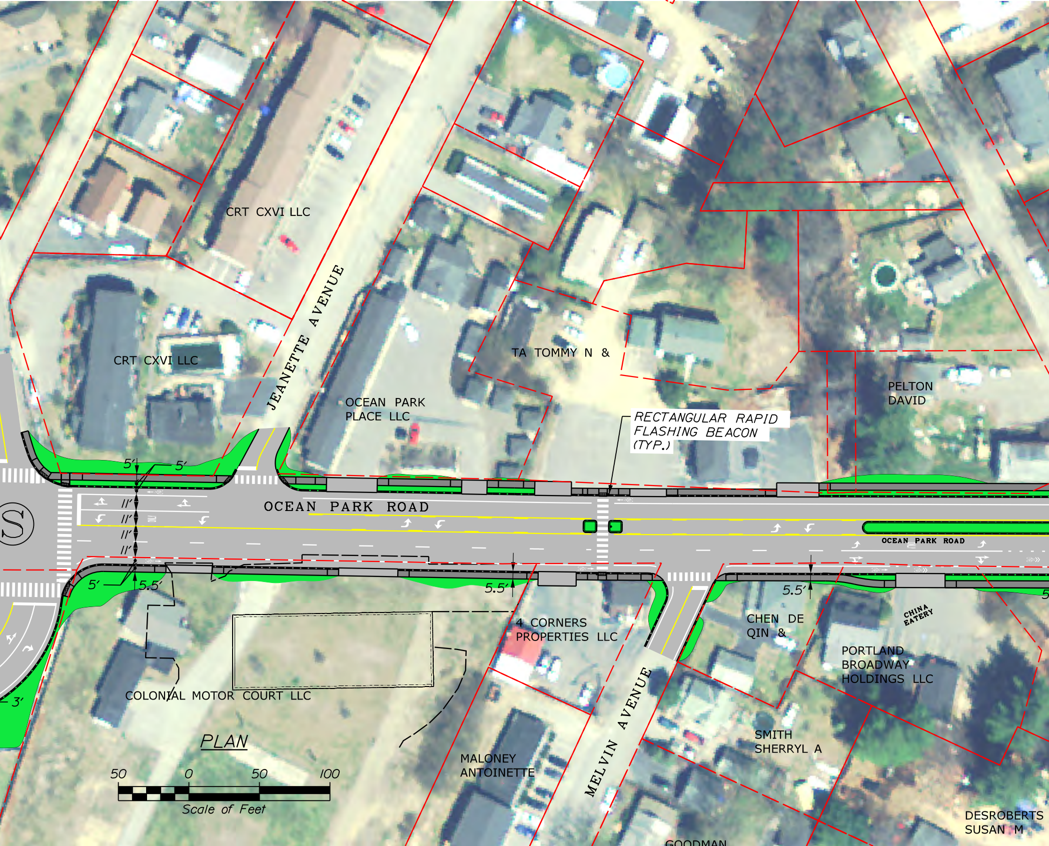

4'
24'
11'
INTERSTATE 195
EAST BOUND
INTERSTATE 195
WEST BOUND
12'
12'
12'
5'
12'
4'
8'
WEISS ROBERT A
WEISS PATRICIA B
90 OCEAL PARK LLC
CENTRAL ME POWER
CO C/O AVANGRID
MANAGEMENT
COMPANY


LEGEND
ROADWAY AND ENTRANCE PAVEMENT
SIDEWALK PAVEMENT
LOAMED AREA (GRASS)
LANDSCAPED MEDIAN
RAISED CONCRETE ISLAND
S
SIGNALIZED INTERSECTION
STOP
R1-1
30" x 30"
AMW LLC
OCEAN PARK ROAD
COTE DEAN J
PINGREE MICHAEL
POOL LIANA M
VIRE THOMAS
12'
12'
12'
4'
8'
12'
12'
4'
12'
4'
8'
4'
12'
12'
5'
8'
12'
4'
13'
4'
12'
12'
5'
5'
11'
11'
1'
6'
11'
2'
11'
5'
5'
16'
14'
14'
2'
5'
11'
11'
11'
11'
11'
10'
5'
2'
12'
7'
10'

I-195 & OCEAN PARK ROAD TRANSITION, PPI STUDY
CONCEPT WITH NO SIGNAL
OPTION 3

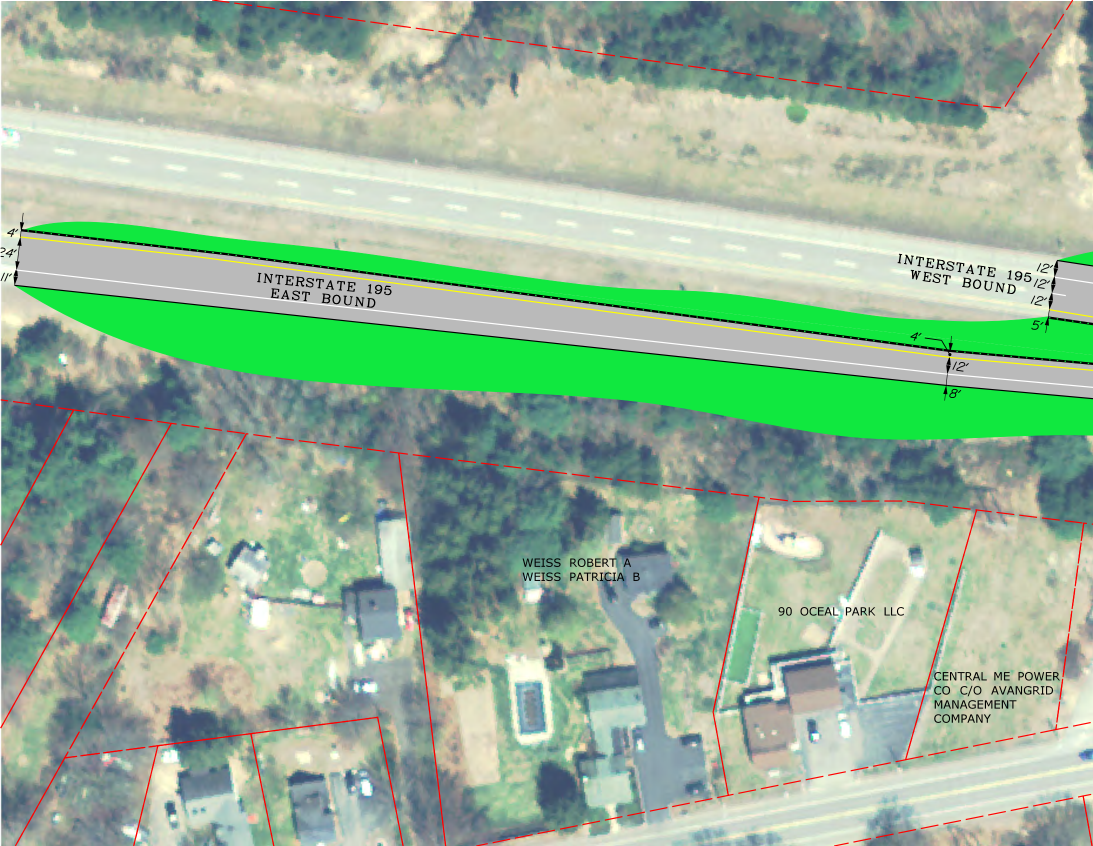
05/21/2024


SMITH BRIAN
BOUTHOT ROBERT E &
MICHELLE M
RESERVE STREET
CRT CXVI LLC
SMITHWHEEL ROAD
ZONFRILLI
ALFRED P &
DEBORAH A
GOLARZ PAMELA J
BLIER
INVESTMENT
GROUP PROP
RECTANGULAR RAPID
FLASHING BEACON
(TYP.)
OCEAN PARK ROAD
RBD INC
RBD INC
5'
5'
11'
1'
12'
11'
11'
5'
10'
5'
11'
1'
8'
11'
2'
11'
5'
10'
5'
5'
11'
11'
11'
11'
5'
11'
2'
10'
5'
3'
15'
15'
15'


CRT CXVI LLC
CRT CXVI LLC
JEANETTE AVENUE
OCEAN PARK PLACE LLC
TA TOMMY N &
PELTON DAVID
RECTANGULAR RAPID FLASHING BEACON (TYP.)
5'
5'
11'
11'
11'
11'
OCEAN PARK ROAD
OCEAN PARK ROAD
5'
5.5'
5.5'
5.5'
5
3'
4 CORNERS PROPERTIES LLC
CHEN DE QIN &
CHINA EATERY
PORTLAND BROADWAY HOLDINGS LLC
COLONIAL MOTOR COURT LLC
MELVIN AVENUE
SMITH SHERRYL A
MALONEY ANTOINETTE
DESROBERTS SUSAN M
GOODMAN
S
50
0
50
100
Scale of Feet

PLAN

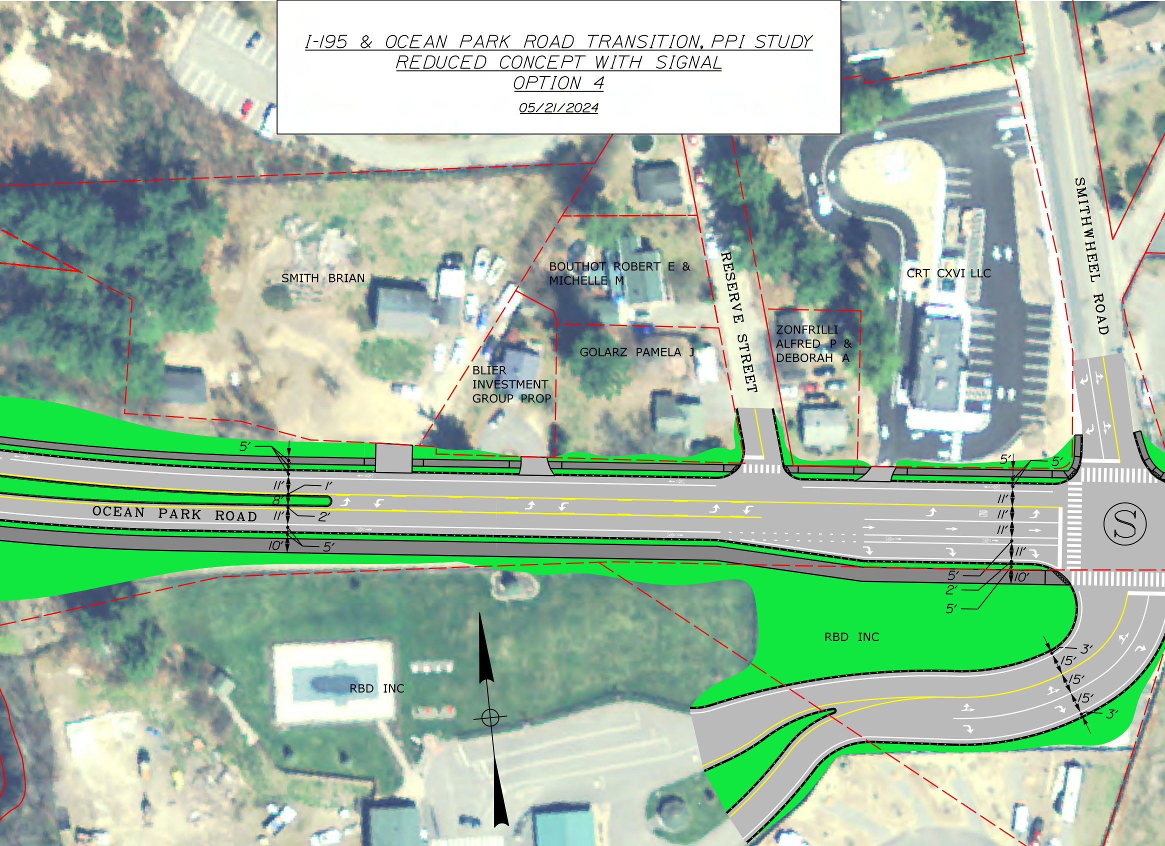
JAY AMBE LLC
WILLETTE GERALD &
OREGON AVENUE
DIMITRI INC
OLD ORHCARD BEACH SEASIDE MOTEL LLC
SEASIDE MOTEL
LYONNAIS REAL O & LISETTE
OLYMPIA AVENUE
CANTARA PHILIP G
SACO AVENUE
5′
11′
11′
4′
1′
1′
11′
5′
6′
5.5′
GOLDEN NOZZLE CAR WASH
LAPLANTE JAMES & RENEE
DEWEY AVENUE
CIERRA INVESTMENTS LLC
CAPTAIN MCSALTY LLC % CARON RON G JR
SEVEN ELEVEN
NOURIA DURHAM LLC
PHAN HAI T
PYLER ROBERT & SULLIVAN STEPHEN E
5′
5′
11′
1′
9′
1′
11′
11′
5′
S
5′
11′
11′
1′
1′
11′
4′
4′
5′
TEMPLE AVENUE
GOOD/EVIL TATTOOS & BEACH BUMS BEAUTY SALON
ULDBJERG DONALD L & CHARLENE
DUHAMEL MOTORS
STASHAWAY STORAGE
PMF INC
TA TOMMY & NGUYEN CINDY H
LEE SPA NAILS
5′
11′
11′
11′
1′
5′
PERRAULT JACQUELINE
LAMOUREU LORETTA JONATHAN
OCEAN BROOK CONDOS
OLD SALT ROAD
OLD ORCHARD ROAD
GERARD R &
OCEAN BROOK CONDO ASSOC
PERRAULT THOMAS E

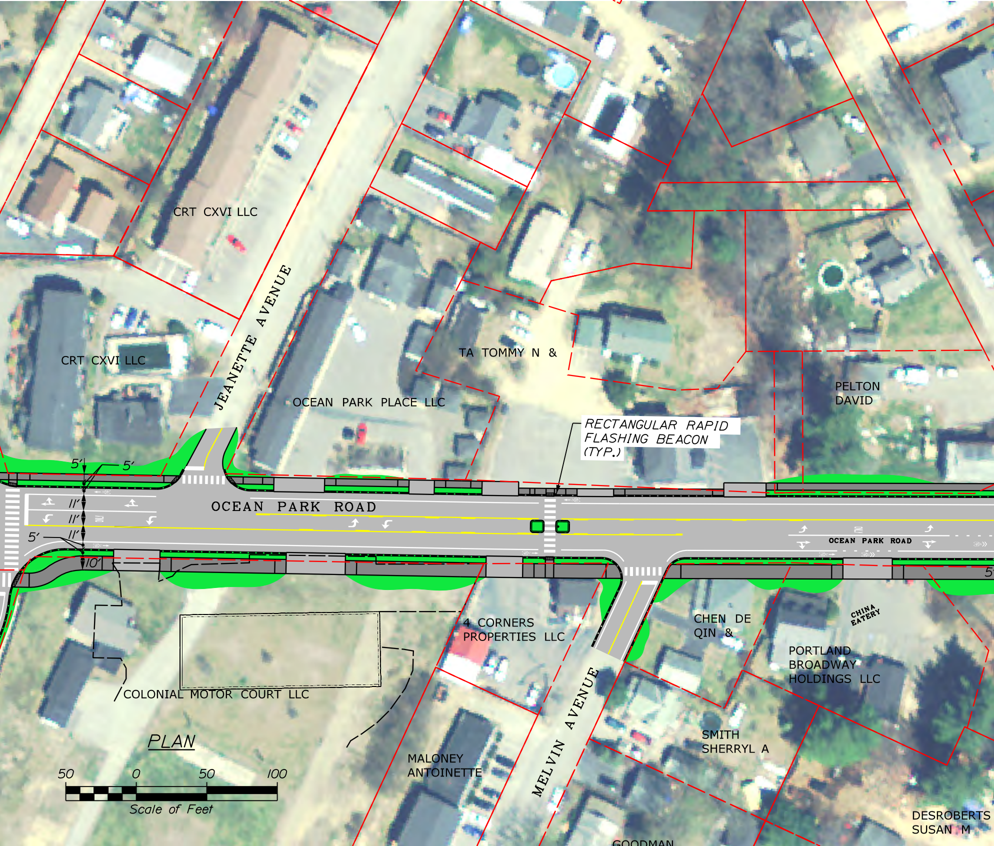

INTERSTATE 195
EAST BOUND
INTERSTATE 195
WEST BOUND
4'
24'
11'
12'
12'
12'
5'
4'
12'
8'
WEISS ROBERT A
WEISS PATRICIA B
90 OCEAL PARK LLC
CENTRAL ME POWER
CO C/O AVANGRID
MANAGEMENT
COMPANY

LEGEND
ROADWAY AND ENTRANCE PAVEMENT
SIDEWALK PAVEMENT
LOAMED AREA (GRASS)
LANDSCAPED MEDIAN
RAISED CONCRETE ISLAND
S
SIGNALIZED INTERSECTION
12′
12′
12′
4′
8′
12′
12′
4′
4′
12′
8′
4′
12′
12′
5′
8′
5′
12′
5′
13′
12′
12′
5′
S
5′
11′
11′
1′
5′
11′
2′
5′
10′
5′
11′
1′
14′
11′
2′
5′
10′
5′
16′
14′
14′
2′
10′
5′
11′
11′
11′
5′
11′
11′
12′
12′
7′
10′
OCEAN PARK ROAD
AMW LLC
COTE DEAN J
PINGREE MICHAEL
POOL LIANA M
VIRE THOMAS

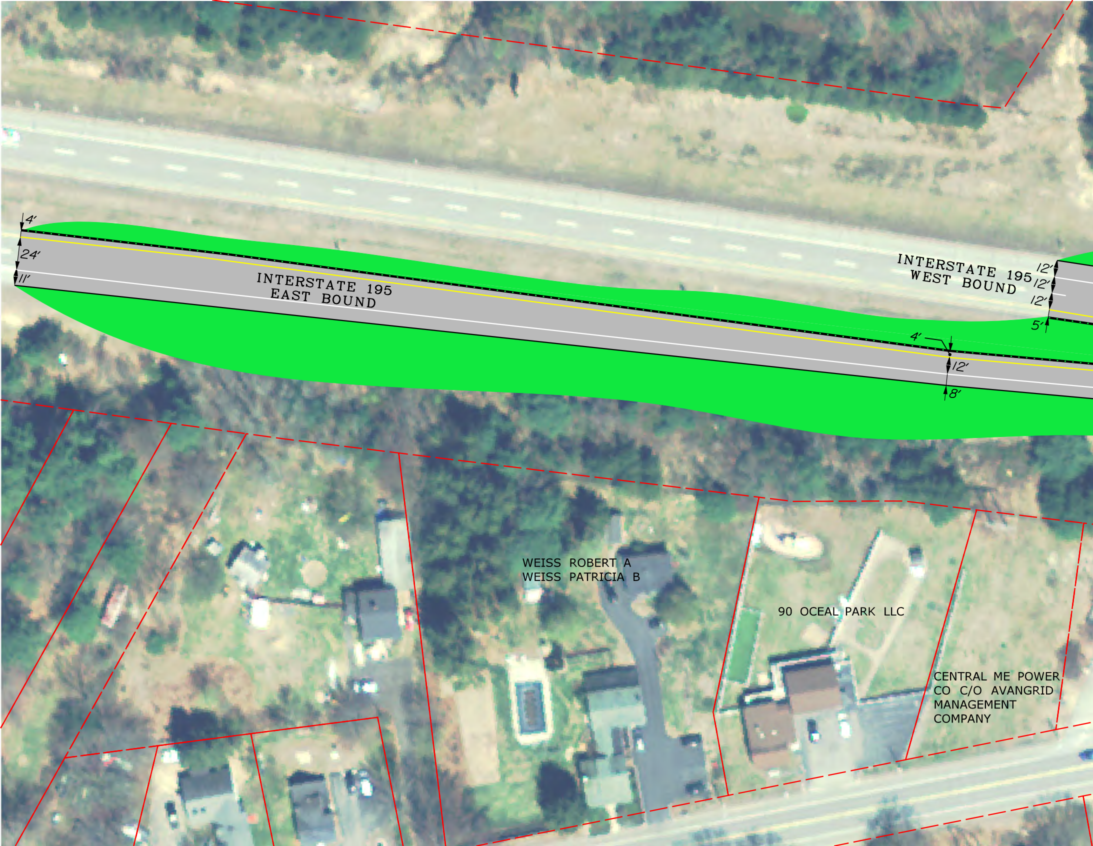
I-195 & OCEAN PARK ROAD TRANSITION, PPI STUDY
REDUCED CONCEPT WITH SIGNAL
OPTION 4

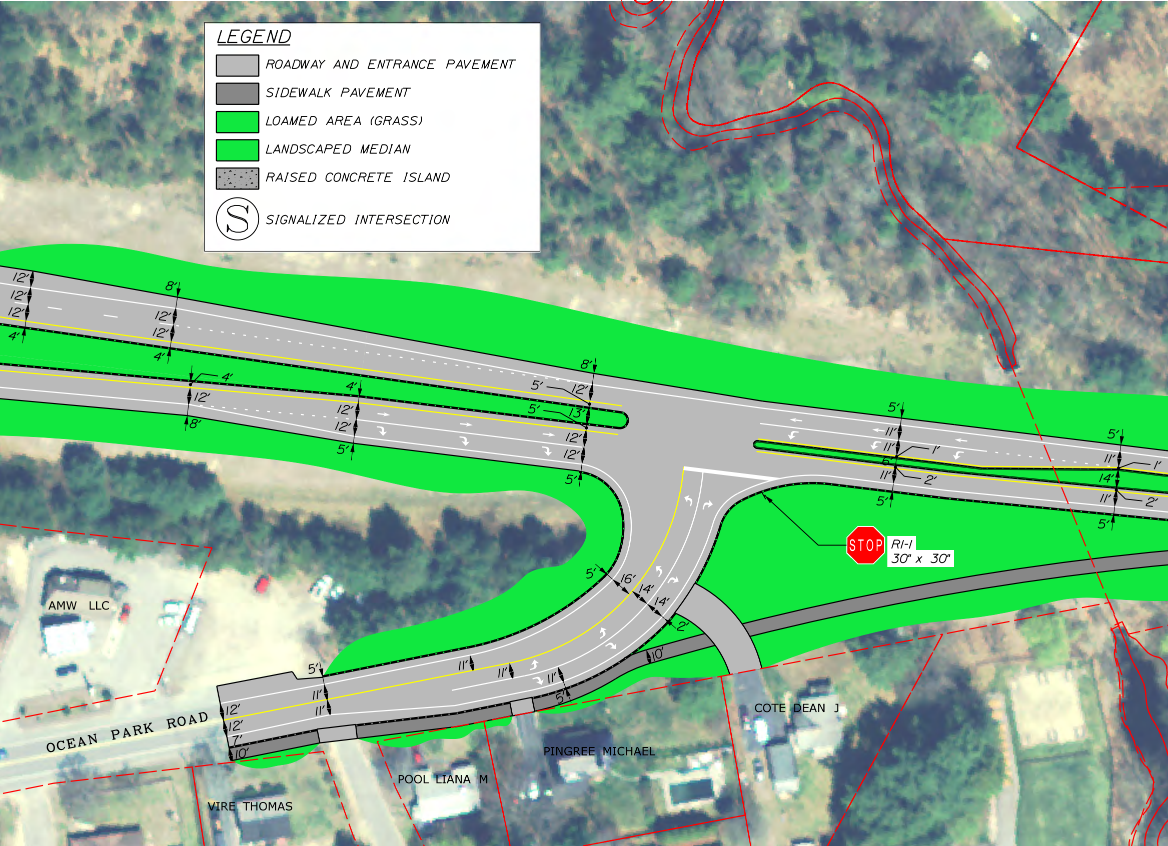
05/21/2024


SMITH BRIAN
BOUTHOT ROBERT E & MICHELLE M
BLIER INVESTMENT GROUP PROP
GOLARZ PAMELA J
RESERVE STREET
ZONFRILLI ALFRED P & DEBORAH A
CRT CXVI LLC
SMITHWHEEL ROAD
OCEAN PARK ROAD
5'
11'
1'
8'
2'
11'
10'
5'
5'
5'
11'
11'
11'
11'
5'
2'
5'
10'
S
RBD INC
RBD INC
3'
15'
15'
15'
3'


CRT CXVI LLC
CRT CXVI LLC
JEANETTE AVENUE
OCEAN PARK PLACE LLC
TA TOMMY N &
PELTON DAVID
RECTANGULAR RAPID FLASHING BEACON (TYP.)
5′
5′
11′
11′
11′
5′
10′
OCEAN PARK ROAD
OCEAN PARK ROAD
5′
4 CORNERS PROPERTIES LLC
CHEN DE QIN &
CHINA EATERY
PORTLAND BROADWAY HOLDINGS LLC
COLONIAL MOTOR COURT LLC
MELVIN AVENUE
MALONEY ANTOINETTE
SMITH SHERRYL A
DESROBERTS SUSAN M
GOODMAN
PLAN
50
0
50
100
Scale of Feet

JAY AMBE LLC
WILLETTE GERALD &
OREGON AVENUE
DIMITRI INC
OLD ORHCARD BEACH SEASIDE MOTEL LLC
SEASIDE MOTEL
LYONNAIS REAL O & LISETTE
OLYMPIA AVENUE
CANTARA PHILIP G
SACO AVENUE
5′
4′
11′
11′
1′
1′
11′
5′
6′
5.5′
GOLDEN NOZZLE CAR WASH
CIERRA INVESTMENTS LLC
DEWEY AVENUE
LAPLANTE JAMES & RENEE
CAPTAIN MCSALTY LLC % CARON RON G JR
SEVEN ELEVEN
NOURIA DURHAM LLC
PHAN HAI T
PYLER ROBERT & SULLIVAN STEPHEN E
5′
5′
11′
11′
11′
10′
S
5′
11′
11′
1′
1′
11′
4′
4′
5′
TEMPLE AVENUE
GOOD/EVIL TATTOOS & BEACH BUMS BEAUTY SALON
ULDBJERG DONALD L & CHARLENE
DUHAMEL MOTORS
STASHAWAY STORAGE
PMF INC
TA TOMMY & NGYEN CINDY H
LEE NAILS & SPA
5′
11′
11′
11′
1′
5′
PERRAULT JACQUELINE
LAMOUREU LORETTA JONATHAN
OCEAN BROOK CONDOS
OLD SALT ROAD
OLD ORCHARD ROAD
GERARD R &
OCEAN BROOK CONDO ASSOC
PERRAULT THOMAS E

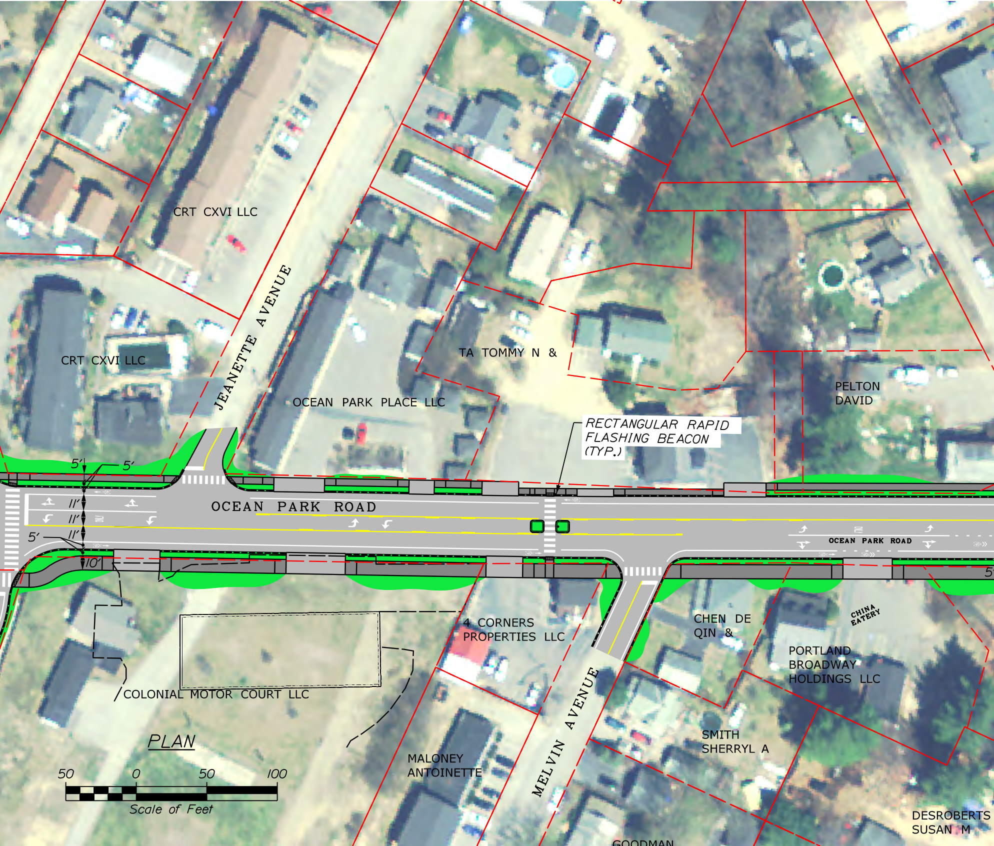

4'
24'
11'
INTERSTATE 195
EAST BOUND
INTERSTATE 195
WEST BOUND
12'
12'
12'
5'
4'
12'
8'
WEISS ROBERT A
WEISS PATRICIA B
90 OCEAL PARK LLC
CENTRAL ME POWER
CO C/O AVANGRID
MANAGEMENT
COMPANY


LEGEND
ROADWAY AND ENTRANCE PAVEMENT
SIDEWALK PAVEMENT
LOAMED AREA (GRASS)
LANDSCAPED MEDIAN
RAISED CONCRETE ISLAND
S
SIGNALIZED INTERSECTION
STOP
R1-1
30" x 30"
OCEAN PARK ROAD
AMW LLC
COTE DEAN J
PINGREE MICHAEL
POOL LIANA M
VIRE THOMAS

I-195 & OCEAN PARK ROAD TRANSITION, PPI STUDY
REDUCED CONCEPT WITH NO SIGNAL
OPTION 5

05/21/2024

SMITH BRIAN
BOUTHOT ROBERT E & MICHELLE M
BLIER INVESTMENT GROUP PROP
GOLARZ PAMELA J
RESERVE STREET
ZONFRILLI ALFRED P & DEBORAH A
CRT CXVI LLC
SMITHWHEEL ROAD
OCEAN PARK ROAD
5'
11'
1'
8'
11'
2'
5'
10'
RECTANGULAR RAPID FLASHING BEACON (TYP.)
5'
5'
11'
11'
11'
11'
5'
10'
2'
5'
S
RBD INC
3'
15'
15'
15'
3'
RBD INC


CRT CXVI LLC
CRT CXVI LLC
JEANETTE AVENUE
OCEAN PARK PLACE LLC
TA TOMMY N &
PELTON DAVID
RECTANGULAR RAPID FLASHING BEACON (TYP.)
5′
5′
11′
11′
11′
5′
10′
OCEAN PARK ROAD
OCEAN PARK ROAD
5′
4 CORNERS PROPERTIES LLC
CHEN DE QIN &
CHINA EATERY
PORTLAND BROADWAY HOLDINGS LLC
COLONIAL MOTOR COURT LLC
PLAN
50
0
50
100
Scale of Feet
MALONEY ANTOINETTE
MELVIN AVENUE
SMITH SHERRYL A
DESROBERTS SUSAN M
GOODMAN

JAY AMBE LLC
WILLETTE GERALD &
OREGON AVENUE
DIMITRI INC
OLD ORHCARD BEACH SEASIDE MOTEL LLC
SEASIDE MOTEL
5′
LYONNAIS REAL O & LISETTE
OLYMPIA AVENUE
4′
11′
11′
1′
1′
11′
SACO AVENUE
CANTARA PHILIP G
5′
6′
5.5′
GOLDEN NOZZLE CAR WASH
CIERRA INVESTMENTS LLC
LAPLANTE JAMES & RENEE
DEWEY AVENUE
CAPTAIN MCSALTY LLC % CARON RON G JR
SEVEN ELEVEN
NOURIA DURHAM LLC
5′
5′
11′
11′
11′
10′
S
PHAN HAI T
PYLER ROBERT & SULLIVAN STEPHEN E
5′
11′
11′
1′
1′
11′
4′
5′
5′
TEMPLE AVENUE
GOOD/EVIL TATTOOS & BEACH BUMS BEAUTY SALON
DUHAMEL MOTORS
ULDBJERG DONALD L & CHARLENE
STASHAWAY STORAGE
TA TOMMY & NGYEN CINDY H
NAIL LEE SPA
5′
11′
11′
11′
1′
5′
PMF INC
PERRAULT JACQUELINE
LAMOUREU
LORETTA
JONATHAN
OCEAN BROOK CONDOS
OLD SALT ROAD
OCEAN BROOK CONDO ASSOC
GERARD R &
LD ORCHARD ROAD
PERRAULT THOMAS E

Attachment B
Computer Printouts

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3006	3005	3054	3060	3091	3043
Vehs Exited	2996	3003	3016	3065	3094	3036
Starting Vehs	134	111	110	132	111	117
Ending Vehs	144	113	148	127	108	128
Travel Distance (mi)	2737	2736	2791	2765	2841	2774
Travel Time (hr)	131.0	132.2	137.2	134.4	138.0	134.6
Total Delay (hr)	33.9	35.1	38.5	36.6	37.2	36.3
Total Stops	3111	3025	3310	3064	3127	3126
Fuel Used (gal)	97.0	98.0	100.4	99.3	101.2	99.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	3006	3005	3054	3060	3091	3043
Vehs Exited	2996	3003	3016	3065	3094	3036
Starting Vehs	134	111	110	132	111	117
Ending Vehs	144	113	148	127	108	128
Travel Distance (mi)	2737	2736	2791	2765	2841	2774
Travel Time (hr)	131.0	132.2	137.2	134.4	138.0	134.6
Total Delay (hr)	33.9	35.1	38.5	36.6	37.2	36.3
Total Stops	3111	3025	3310	3064	3127	3126
Fuel Used (gal)	97.0	98.0	100.4	99.3	101.2	99.2

2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.6	1.5	0.0	0.2
Total Del/Veh (s)	15.9	56.0	70.5	14.2	22.0

7: Ocean Park Rd & Reserve St Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.0
Total Del/Veh (s)	2.5	2.1	19.3	2.4

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.5	2.1	3.1	0.4
Total Del/Veh (s)	7.0	11.2	26.3	19.9	9.6

16: Ocean Park Rd & Jeanette Ave Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	1.1	5.4	81.0	3.0

28: Melvin Ave & Ocean Park Rd Performance by approach

Approach	EB	WB	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	2.1	2.0	2.1

4040: 195 EB/Ocean Park Rd Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.2	0.0	3.2	0.8
Total Del/Veh (s)	7.5	6.6	13.8	8.6

Total Network Performance

Denied Del/Veh (s)	1.3
Total Del/Veh (s)	40.0

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	LT	R
Maximum Queue (ft)	380	266	98	228	122	220	97	314
Average Queue (ft)	262	113	17	109	55	66	33	121
95th Queue (ft)	415	226	57	195	121	168	77	247
Link Distance (ft)	352	352		1273		973	2082	
Upstream Blk Time (%)	3	0						
Queuing Penalty (veh)	22	0						
Storage Bay Dist (ft)			130		100			300
Storage Blk Time (%)				11	14	4		0
Queuing Penalty (veh)				2	16	2		0

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	172	86	10	43
Average Queue (ft)	17	5	0	7
95th Queue (ft)	103	53	7	28
Link Distance (ft)	721	721	198	253
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	197	268	203	109	95	194	80	41	66	111
Average Queue (ft)	92	110	78	10	30	161	26	14	17	48
95th Queue (ft)	167	220	168	50	78	213	62	32	47	93
Link Distance (ft)		198	198			96	407		950	
Upstream Blk Time (%)	0	1	0		0	21				
Queuing Penalty (veh)	0	8	2		0	181				
Storage Bay Dist (ft)	210			140	160			180		200
Storage Blk Time (%)	0	1	1	0	0	21				
Queuing Penalty (veh)	2	2	1	0	1	11				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	34	42	290	44
Average Queue (ft)	7	1	85	6
95th Queue (ft)	28	14	237	28
Link Distance (ft)		96	248	550
Upstream Blk Time (%)			1	
Queuing Penalty (veh)			12	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	4	0		
Queuing Penalty (veh)	27	0		

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB	EB	WB
Directions Served	T	TR	LT
Maximum Queue (ft)	286	216	144
Average Queue (ft)	36	11	8
95th Queue (ft)	159	89	70
Link Distance (ft)	248	248	352
Upstream Blk Time (%)	1	0	0
Queuing Penalty (veh)	4	1	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4040: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	TR	L	T	L	R
Maximum Queue (ft)	152	112	74	65	122	240
Average Queue (ft)	70	14	28	6	21	108
95th Queue (ft)	125	66	65	36	79	210
Link Distance (ft)	2011	2011		721	915	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			150			250
Storage Blk Time (%)				0		1
Queuing Penalty (veh)				0		0

Network Summary

Network wide Queuing Penalty: 294

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Phase	2	4	5	6	8
Movement(s) Served	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	77.0	21.0	55.0	16.0	21.0
Minimum Green (s)	4.0	4.0	5.0	4.0	4.0
Recall	C-Min	None	None	None	None
Avg. Green (s)	79.8	22.7	55.4	16.1	21.4
g/C Ratio	NA	-0.01	NA	NA	NA
Cycles Skipped (%)	0	13	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	100	59	66	53	63
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	5.0	69.0	18.0	13.0	61.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None	None	None
Avg. Green (s)	6.3	77.8	9.1	11.0	46.4	9.1
g/C Ratio	-0.01	-0.01	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	65	5	11	7	0	11
Cycles @ Minimum (%)	13	0	3	9	0	3
Cycles Maxed Out (%)	3	95	0	7	17	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2956	3031	3059	3061	3100	3040
Vehs Exited	2949	3026	3028	3046	3069	3024
Starting Vehs	129	123	117	129	117	125
Ending Vehs	136	128	148	144	148	137
Travel Distance (mi)	2695	2761	2768	2772	2801	2760
Travel Time (hr)	141.3	145.7	149.5	146.8	151.5	147.0
Total Delay (hr)	46.3	48.7	52.1	49.3	52.6	49.8
Total Stops	3774	3853	3991	3948	4155	3943
Fuel Used (gal)	98.1	101.1	102.4	102.0	103.5	101.4

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2956	3031	3059	3061	3100	3040
Vehs Exited	2949	3026	3028	3046	3069	3024
Starting Vehs	129	123	117	129	117	125
Ending Vehs	136	128	148	144	148	137
Travel Distance (mi)	2695	2761	2768	2772	2801	2760
Travel Time (hr)	141.3	145.7	149.5	146.8	151.5	147.0
Total Delay (hr)	46.3	48.7	52.1	49.3	52.6	49.8
Total Stops	3774	3853	3991	3948	4155	3943
Fuel Used (gal)	98.1	101.1	102.4	102.0	103.5	101.4

2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.6	1.4	0.0	0.2
Total Del/Veh (s)	15.4	60.9	56.8	14.2	21.1

7: Ocean Park Rd & Reserve St Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	4.5	2.1	19.1	3.6

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.5	1.9	3.1	0.4
Total Del/Veh (s)	7.0	10.8	24.1	19.9	9.4

16: Ocean Park Rd & Jeanette Ave Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	1.2	4.9	52.2	2.8

28: Melvin Ave & Ocean Park Rd Performance by approach

Approach	EB	WB	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	2.5	1.9	2.3

4040: 195 EB/Ocean Park Rd Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.2	0.0	3.2	0.8
Total Del/Veh (s)	36.4	20.3	22.4	27.1

Total Network Performance

Denied Del/Veh (s)	1.4
Total Del/Veh (s)	55.4

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	LT	R
Maximum Queue (ft)	377	249	49	240	122	191	101	315
Average Queue (ft)	241	90	12	116	43	65	36	125
95th Queue (ft)	408	196	36	210	99	159	80	256
Link Distance (ft)	352	352		1273		973	2082	
Upstream Blk Time (%)	4	0						
Queuing Penalty (veh)	23	1						
Storage Bay Dist (ft)			130		100			300
Storage Blk Time (%)				12	5	5		0
Queuing Penalty (veh)				3	5	3		0

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	WB	SB
Directions Served	LT	T	TR	LR
Maximum Queue (ft)	262	130	26	39
Average Queue (ft)	24	6	1	5
95th Queue (ft)	132	57	19	25
Link Distance (ft)	780	780	198	252
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	197	265	225	88	95	185	66	45	57	132
Average Queue (ft)	93	118	79	8	25	156	25	13	15	46
95th Queue (ft)	168	241	189	42	67	214	56	33	43	92
Link Distance (ft)		198	198			96	407		950	
Upstream Blk Time (%)	0	2	1		0	20				
Queuing Penalty (veh)	0	13	4		0	175				
Storage Bay Dist (ft)	210			140	160			180		200
Storage Blk Time (%)	0	2	1	0	0	20				
Queuing Penalty (veh)	2	4	1	0	0	10				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	EB	WB	SB
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	34	78	35	279	27
Average Queue (ft)	6	5	1	76	5
95th Queue (ft)	26	48	18	221	19
Link Distance (ft)		96	96	248	550
Upstream Blk Time (%)		0	0	1	
Queuing Penalty (veh)		2	0	12	
Storage Bay Dist (ft)	25				
Storage Blk Time (%)	3	0			
Queuing Penalty (veh)	20	0			

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB	EB	WB
Directions Served	T	TR	LT
Maximum Queue (ft)	266	117	162
Average Queue (ft)	42	11	8
95th Queue (ft)	173	78	77
Link Distance (ft)	248	248	352
Upstream Blk Time (%)	1	0	0
Queuing Penalty (veh)	6	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4040: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	TR	L	T	L	R
Maximum Queue (ft)	418	407	274	469	319	323
Average Queue (ft)	267	265	159	190	50	212
95th Queue (ft)	387	385	267	376	183	329
Link Distance (ft)	2073	2073		780	962	
Upstream Blk Time (%)				0		
Queuing Penalty (veh)				2		
Storage Bay Dist (ft)			250			300
Storage Blk Time (%)			1	3		2
Queuing Penalty (veh)			6	11		1

Network Summary

Network wide Queuing Penalty: 304

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Phase	2	4	5	6	8
Movement(s) Served	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	77.0	21.0	55.0	16.0	21.0
Minimum Green (s)	4.0	4.0	5.0	4.0	4.0
Recall	C-Min	None	None	None	None
Avg. Green (s)	76.7	23.4	55.6	15.5	21.6
g/C Ratio	NA	-0.01	NA	NA	NA
Cycles Skipped (%)	0	13	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	100	55	69	53	53
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	5.0	69.0	18.0	13.0	61.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None	None	None
Avg. Green (s)	6.2	79.9	8.6	10.9	47.0	8.6
g/C Ratio	-0.01	-0.01	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	72	8	14	5	0	14
Cycles @ Minimum (%)	6	0	0	10	0	0
Cycles Maxed Out (%)	0	92	3	7	20	3
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 4040: 195 EB/Ocean Park Rd

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	NBL
Maximum Green (s)	23.0	41.0	70.0	28.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None
Avg. Green (s)	22.5	39.6	67.6	30.7
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	59	100	56	72
Cycles with Peds (%)	0	0	0	0

Controller Summary
Average Cycle Length (s): NA

Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	3039	3083	3171	2987	3044	3065
Vehs Exited	2999	3048	3140	3016	3026	3044
Starting Vehs	116	105	118	134	102	113
Ending Vehs	156	140	149	105	120	135
Travel Distance (mi)	2722	2784	2859	2713	2745	2765
Travel Time (hr)	137.8	139.0	141.7	130.5	136.1	137.0
Total Delay (hr)	41.8	41.5	41.3	35.0	39.4	39.8
Total Stops	2873	2912	3031	2741	2852	2879
Fuel Used (gal)	97.2	98.9	101.4	95.1	97.5	98.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	3039	3083	3171	2987	3044	3065
Vehs Exited	2999	3048	3140	3016	3026	3044
Starting Vehs	116	105	118	134	102	113
Ending Vehs	156	140	149	105	120	135
Travel Distance (mi)	2722	2784	2859	2713	2745	2765
Travel Time (hr)	137.8	139.0	141.7	130.5	136.1	137.0
Total Delay (hr)	41.8	41.5	41.3	35.0	39.4	39.8
Total Stops	2873	2912	3031	2741	2852	2879
Fuel Used (gal)	97.2	98.9	101.4	95.1	97.5	98.0

2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.7	1.3	0.0	0.1
Total Del/Veh (s)	16.4	53.0	52.5	15.6	21.2

7: Ocean Park Rd & Reserve St Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.0
Total Del/Veh (s)	4.2	2.1	26.7	3.5

13: OOB Campground/Smithwheel Rd & Ocean Park Rd Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.7	2.0	3.1	0.5
Total Del/Veh (s)	7.1	11.3	26.3	20.8	9.7

16: Ocean Park Rd & Jeanette Ave Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	1.2	5.9	86.5	3.3

28: Melvin Ave & Ocean Park Rd Performance by approach

Approach	EB	WB	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	2.2	2.3	2.2

4040: 195 EB/Ocean Park Rd Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	1.1	0.0	0.3	0.5
Total Del/Veh (s)	4.9	9.2	29.2	12.2

Total Network Performance

Denied Del/Veh (s)	1.1
Total Del/Veh (s)	44.0

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	LT	R
Maximum Queue (ft)	375	311	78	200	114	155	190	331
Average Queue (ft)	268	124	17	106	39	57	45	127
95th Queue (ft)	417	242	49	181	90	118	150	278
Link Distance (ft)	352	352		1273		973	2082	
Upstream Blk Time (%)	4	0						
Queuing Penalty (veh)	24	1						
Storage Bay Dist (ft)			130		100			300
Storage Blk Time (%)				8	3	3		1
Queuing Penalty (veh)				2	4	1		1

Intersection: 7: Ocean Park Rd & Reserve St

Movement	EB	EB	SB
Directions Served	LT	T	LR
Maximum Queue (ft)	278	208	46
Average Queue (ft)	22	8	8
95th Queue (ft)	154	115	32
Link Distance (ft)	792	792	252
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Movement	EB	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	TR	LT	R	LT	R
Maximum Queue (ft)	191	263	195	114	89	184	72	48	54	114
Average Queue (ft)	87	115	89	9	25	161	27	13	19	46
95th Queue (ft)	157	220	177	50	67	214	62	34	48	88
Link Distance (ft)		198	198			96	407		950	
Upstream Blk Time (%)	0	1	0		0	21				
Queuing Penalty (veh)	0	9	2		0	182				
Storage Bay Dist (ft)	210			140	160			180		200
Storage Blk Time (%)	0	1	1	0	0	21				
Queuing Penalty (veh)	1	2	1	0	0	11				

Intersection: 16: Ocean Park Rd & Jeanette Ave

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	32	27	295	36
Average Queue (ft)	7	1	90	6
95th Queue (ft)	27	14	249	27
Link Distance (ft)		96	248	550
Upstream Blk Time (%)		0	3	
Queuing Penalty (veh)		0	22	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	7	0		
Queuing Penalty (veh)	42	0		

Intersection: 28: Melvin Ave & Ocean Park Rd

Movement	EB	EB	WB
Directions Served	T	TR	LT
Maximum Queue (ft)	263	132	156
Average Queue (ft)	41	9	13
95th Queue (ft)	163	67	87
Link Distance (ft)	248	248	352
Upstream Blk Time (%)	1	0	
Queuing Penalty (veh)	5	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4040: 195 EB/Ocean Park Rd

Movement	EB	EB	WB	WB	NB
Directions Served	T	R	L	T	L
Maximum Queue (ft)	6	26	243	171	248
Average Queue (ft)	0	5	119	6	106
95th Queue (ft)	4	21	210	76	235
Link Distance (ft)	2073			792	888
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		160	250		
Storage Blk Time (%)			1		
Queuing Penalty (veh)			6		

Network Summary

Network wide Queuing Penalty: 316

Intersection: 2: Orchard Road/Saco Ave & Ocean Ave/Temple Ave

Phase	2	4	5	6	8
Movement(s) Served	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	77.0	21.0	55.0	16.0	21.0
Minimum Green (s)	4.0	4.0	5.0	4.0	4.0
Recall	C-Min	None	None	None	None
Avg. Green (s)	76.9	22.2	55.2	16.3	21.6
g/C Ratio	NA	-0.01	NA	NA	-0.01
Cycles Skipped (%)	0	13	0	0	3
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	100	50	59	47	50
Cycles with Peds (%)	0	0	0	0	0

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

Intersection: 13: OOB Campground/Smithwheel Rd & Ocean Park Rd

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	SBTL	EBL	WBTL	NBTL
Maximum Green (s)	5.0	69.0	18.0	13.0	61.0	18.0
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0	5.0
Recall	None	C-Min	None	None	None	None
Avg. Green (s)	6.0	71.9	8.4	10.2	47.9	8.4
g/C Ratio	-0.01	-0.01	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	63	5	5	7	0	5
Cycles @ Minimum (%)	9	0	5	5	0	5
Cycles Maxed Out (%)	0	95	0	5	18	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

From:	Randy Dunton
To:	Donald Ettinger
Cc:	Kyle Brennan
Subject:	OOB - Evaluation Of Eastbound Right Turn Lane at Campground Access
Date:	Wednesday, September 4, 2024 10:59:18 AM
Importance:	High

Good morning Don,

Per your request, we have evaluated the traffic impacts of removing the right turn lane on Ocean Park Road for eastbound vehicles turning into the Campground at the proposed signalized intersection with Smithwheel Road.

The evaluation focused on the year 2045 in the PM peak hour condition.

We reviewed the eastbound delay / LOS and the queue for Option 1 with the only difference the removal of the right turn lane. This results in an approach with a left, thru, thru/right lanes.

The results are as follows:

Delay/LOS: With right turn 9.5 sec/A
Without right turn 9.9 sec/A

Queue: The approach had an approximate 95th percentile queue of 13 vehicles regardless of the right turn. This is significantly shorter than the approximate distance to the potential roundabout (total distance approximately 1,000 feet).

Do not hesitate to contact me if you need additional information or want to discuss in more detail.

Thank you.

Randy Dunton, P.E., PTOE, IMSA II | Project Manager

GORRILL PALMER
An LJB Engineering Company

300 Southborough Drive, Suite 200 | South Portland, ME 04106
207.800.3169 (office) | 207.239.7430 (mobile)
GorrillPalmer.com

Appendix D

Crash Data

Maine Department Of Transportation - Office of Safety, Crash Records Section

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ **Crash Summary I** ☐ **Section Detail** ☑ **Crash Summary II** ☐ **1320 Public** ☐ **1320 Private** ☐ **1320 Summary**

REPORT DESCRIPTION

Saco
Main St (Rt 1) from I-195 On/Off ramps to Hutchins St/Smith Lane including approaches.

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: **0001X**	Start Node: **56664**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **56668**	End Offset: **0**	☑ **Exclude Last Node**
Route: **0001S**	Start Node: **56668**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **56667**	End Offset: **0**	☑ **Exclude Last Node**
Route: **0001S**	Start Node: **56667**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **53976**	End Offset: **0**	☑ **Exclude Last Node**
Route: **0001S**	Start Node: **53976**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **56666**	End Offset: **0**	☑ **Exclude Last Node**
Route: **0005X**	Start Node: **57531**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **64963**	End Offset: **0**	☑ **Exclude Last Node**
Route: **31F0136**	Start Node: **57524**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **57538**	End Offset: **0**	☑ **Exclude Last Node**
Route: **31D0136**	Start Node: **57537**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **57529**	End Offset: **0**	☑ **Exclude Last Node**
Route: **3150051**	Start Node: **56665**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **55357**	End Offset: **0**	☑ **Exclude Last Node**
Route: **3200223**	Start Node: **59694**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **59695**	End Offset: **0**	☑ **Exclude Last Node**
Route: **31A0136**	Start Node: **64962**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **57532**	End Offset: **0**	☑ **Exclude Last Node**
Route: **31B0136**	Start Node: **57528**	Start Offset: **0**	☑ **Exclude First Node**

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ **Crash Summary I** ☐ **Section Detail** ☑ **Crash Summary II** ☐ **1320 Public** ☐ **1320 Private** ☐ **1320 Summary**

REPORT DESCRIPTION

Saco
Main St (Rt 1) from I-195 On/Off ramps to Hutchins St/Smith Lane including approaches.

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

	End Node: **57536**	End Offset: **0**	☑ **Exclude Last Node**
Route: **31Q0136**	Start Node: **56667**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **57523**	End Offset: **0**	☑ **Exclude Last Node**
Route: **3209679**	Start Node: **66728**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **66729**	End Offset: **0**	☑ **Exclude Last Node**
Route: **3202095**	Start Node: **65676**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **56667**	End Offset: **0**	☑ **Exclude Last Node**
Route: **0005S**	Start Node: **56667**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **56886**	End Offset: **0**	☑ **Exclude Last Node**

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
56666	0001X - 35.70	Int of MAIN ST STOCKMAN AV	2	4	0	0	0	1	3	25.0	8.815	0.15	0.29	0.00
												Statewide Crash Rate:	0.13	
57536	0001X - 35.99	Int of MAIN ST RAMP B	2	5	0	0	0	0	5	0.0	4.091	0.41	0.37	1.09
												Statewide Crash Rate:	0.14	
P56665	0001X - 35.56	Int of HUTCHINS ST MAIN ST	9	26	0	1	1	4	20	23.1	9.343	0.93	1.02	0.91
												Statewide Crash Rate:	0.65	
57538	0001X - 35.86	Int of MAIN ST RAMP F	2	19	0	0	4	4	11	42.1	5.345	1.18	0.27	4.35
												Statewide Crash Rate:	0.10	
53976	0001X - 35.77	Int of ENT SHOP SAVE MAIN ST Z TO CONVENIENCE STC	9	15	0	0	0	3	12	20.0	11.496	0.43	0.99	0.44
												Statewide Crash Rate:	0.65	
P56667	0001X - 35.82	Int of MAIN ST OCEAN PARK RD RAMP E OFF TO MAIN ST	9	52	0	1	1	16	34	34.6	11.365	1.53	0.99	1.54
												Statewide Crash Rate:	0.65	
57537	0001X - 35.91	Int of MAIN ST RAMP D	2	1	0	0	0	0	1	0.0	5.363	0.06	0.27	0.00
												Statewide Crash Rate:	0.10	
A59694	0001X - 35.57	Int of MAIN ST SMITH LN	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
												Statewide Crash Rate:	0.13	
64962	0001S - 23.60	Int of MAIN ST RAMP A ON FROM MAIN ST	2	0	0	0	0	0	0	0.0	3.715	0.00	0.30	0.00
												Statewide Crash Rate:	0.10	
64963	0001S - 23.66	Int of MAIN ST RAMP OFF ROUTE 5 TO MAIN ST	2	0	0	0	0	0	0	0.0	3.187	0.00	0.31	0.00
												Statewide Crash Rate:	0.10	
A66729	0001S - 23.78	Int of MAIN ST RD INV 3209679	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
												Statewide Crash Rate:	0.10	
A66728	31Q0136 - 0.02	Int of RAMP E OFF TO MAIN ST RD INV 3209679	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
												Statewide Crash Rate:	0.10	
65676	0005S - 0.43	Non Int OCEAN PARK RD	2	0	0	0	0	0	0	0.0	2.597	0.00	0.40	0.00
												Statewide Crash Rate:	0.13	
Study Years:	3.00	**NODE TOTALS:**		122	0	2	6	28	86	29.5	65.317	0.62	0.49	1.27

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
56664	56665	3114292	0 - 0.14	0001X - 35.42	0.14	2	22	0	0	3	3	16	27.3	0.01214	603.89	361.33	1.67
Int of ACADEMY AV MAIN ST				US 1											Statewide Crash Rate: 189.34		
56665	59694	3118793	0 - 0.01	0001X - 35.56	0.01	2	0	0	0	0	0	0	0.0	0.00087	0.00	692.40	0.00
Int of HUTCHINS ST MAIN ST				US 1											Statewide Crash Rate: 189.34		
59694	56666	3115060	0 - 0.13	0001X - 35.57	0.13	2	51	0	0	3	4	44	13.7	0.01128	1507.43	367.27	4.10
Int of MAIN ST SMITH LN				US 1											Statewide Crash Rate: 189.34		
53976	56666	3123598	0 - 0.07	0001X - 35.70	0.07	2	1	0	0	0	0	1	0.0	0.00287	116.25	513.39	0.00
Int of ENT SHOP SAVE MAIN ST Z TO CONVENIENCE STORE				US 1											Statewide Crash Rate: 189.34		
53976	56667	3117318	0 - 0.05	0001X - 35.77	0.05	2	0	0	0	0	0	0	0.0	0.00260	0.00	526.51	0.00
Int of ENT SHOP SAVE MAIN ST Z TO CONVENIENCE STORE				US 1											Statewide Crash Rate: 189.34		
56667	57538	3117354	0 - 0.04	0001X - 35.82	0.04	2	1	0	0	0	0	1	0.0	0.00189	176.53	572.03	0.00
Int of MAIN ST OCEAN PARK RD RAMP E OFF TO MAIN ST				US 1											Statewide Crash Rate: 189.34		
57537	57538	3938160	0 - 0.05	0001X - 35.86	0.05	2	0	0	0	0	0	0	0.0	0.00268	0.00	522.38	0.00
Int of MAIN ST RAMP D				US 1											Statewide Crash Rate: 189.34		
57536	57537	3117355	0 - 0.08	0001X - 35.91	0.08	2	1	0	0	0	0	1	0.0	0.00301	110.59	506.81	0.00
Int of MAIN ST RAMP B				US 1											Statewide Crash Rate: 189.34		
56668	57536	3068120	0 - 0.03	0001X - 35.99	0.03	2	0	0	0	0	0	0	0.0	0.00123	0.00	637.06	0.00
Int of MAIN ST MOODY ST				US 1											Statewide Crash Rate: 189.34		
56668	64962	3123108	0 - 0.04	0001S - 23.56	0.04	2	0	0	0	0	0	0	0.0	0.00149	0.00	608.05	0.00
Int of MAIN ST MOODY ST				US 1 SB											Statewide Crash Rate: 189.34		
64962	64963	3129755	0 - 0.06	0001S - 23.60	0.06	2	0	0	0	0	0	0	0.0	0.00179	0.00	579.96	0.00
Int of MAIN ST RAMP A ON FROM MAIN ST				US 1 SB											Statewide Crash Rate: 189.34		
64963	56667	3116386	0 - 0.10	0001S - 23.66	0.10	2	0	0	0	0	0	0	0.0	0.00320	0.00	499.20	0.00
Int of MAIN ST RAMP OFF ROUTE 5 TO MAIN ST				US 1 SB											Statewide Crash Rate: 189.34		
56667	66729	3153098	0 - 0.02	0001S - 23.76	0.02	2	0	0	0	0	0	0	0.0	0.00079	0.00	705.81	0.00
Int of MAIN ST OCEAN PARK RD RAMP E OFF TO MAIN ST				US 1 SB											Statewide Crash Rate: 189.34		
66729	53976	3153099	0 - 0.04	0001S - 23.78	0.04	2	1	0	0	0	0	1	0.0	0.00216	154.62	552.79	0.00
Int of MAIN ST RD INV 3209679				US 1 SB											Statewide Crash Rate: 189.34		
53976	56666	3139705	0 - 0.07	0001S - 23.82	0.07	2	4	0	0	0	2	2	50.0	0.00304	438.38	505.62	0.00
Int of ENT SHOP SAVE MAIN ST Z TO CONVENIENCE STORE				US 1 SB											Statewide Crash Rate: 189.34		
57531	64963	3116422	0 - 0.21	0005X - 3.27	0.21	2	1	0	0	0	0	1	0.0	0.00043	776.57	326.69	2.38
Int of I 195 WB RAMP OFF ROUTE 5 TO MAIN ST				ST RTE 5											Statewide Crash Rate: 78.59		
57524	57538	3114489	0 - 0.18	31F0136 - 0	0.18	2	4	0	0	1	0	3	25.0	0.00112	1186.80	323.60	3.67
Int of FAP 91 RAMP F				RD INV 31 F0136											Statewide Crash Rate: 78.59		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
57529	57537	3114494	0 - 0.19	31D0136 - 0	0.19	2	2	0	0	0	0	2	0.0	0.00294	226.72	265.05	0.00
Int of FAP 9 1 SPUR NB RAMP D				RD INV 31 D0136											Statewide Crash Rate: 78.59		
55357	56665	5084586	0 - 0.05	3150051 - 0	0.05	2	0	0	0	0	0	0	0.0	0.00028	0.00	1424.56	0.00
Int of HORTON AV HUTCHINS ST				RD INV 31 50051											Statewide Crash Rate: 351.28		
59694	59695	2038692	0 - 0.09	3200223 - 0	0.09	2	1	0	0	0	0	1	0.0	0.00071	472.40	1164.45	0.00
Int of MAIN ST SMITH LN				RD INV 3200223											Statewide Crash Rate: 351.28		
57532	64962	3116385	0 - 0.32	31A0136 - 0	0.32	2	0	0	0	0	0	0	0.0	0.00225	0.00	282.35	0.00
Int of I 195 WB RAMP A ON FROM MAIN ST				RD INV 31 A0136											Statewide Crash Rate: 78.59		
57528	57536	3114493	0 - 0.20	31B0136 - 0	0.20	2	0	0	0	0	0	0	0.0	0.00065	0.00	472.32	0.00
Int of FAP 9 1 SPUR NB RAMP B				RD INV 31 B0136											Statewide Crash Rate: 111.78		
56667	66728	3153096	0 - 0.02	31Q0136 - 0	0.02	2	0	0	0	0	0	0	0.0	0.00006	0.00	-1122.50	0.00
Int of MAIN ST OCEAN PARK RD RAMP E OFF TO MAIN ST				RD INV 31Q0136											Statewide Crash Rate: 78.59		
66728	57523	3153097	0 - 0.16	31Q0136 - 0.02	0.16	2	2	0	0	0	0	2	0.0	0.00267	249.79	271.36	0.00
Int of RAMP E OFF TO MAIN ST RD INV 3209679				RD INV 31Q0136											Statewide Crash Rate: 78.59		
66728	66729	3413564	0 - 0.02	3209679 - 0	0.02	2	0	0	0	0	0	0	0.0	0.00028	0.00	269.28	0.00
Int of RAMP E OFF TO MAIN ST RD INV 3209679				RD INV 3209679											Statewide Crash Rate: 78.59		
65676	56667	3118596	0 - 0.04	3202095 - 0	0.04	2	0	0	0	0	0	0	0.0	0.00052	0.00	658.32	0.00
Non Int OCEAN PARK RD				RD INV 3202095											Statewide Crash Rate: 158.26		
56667	65676	3139847	0 - 0.03	0005S - 0.40	0.03	2	0	0	0	0	0	0	0.0	0.00039	0.00	678.37	0.00
Int of MAIN ST OCEAN PARK RD RAMP E OFF TO MAIN ST				ST RTE 5S											Statewide Crash Rate: 158.26		
65676	56886	3139846	0 - 0.06	0005S - 0.43	0.06	2	1	0	0	0	0	1	0.0	0.00156	213.89	525.26	0.00
Non Int OCEAN PARK RD				ST RTE 5S											Statewide Crash Rate: 158.26		
Study Years: 3.00				**Section Totals:**	2.50		92	0	0	7	9	76	17.4	0.06488	472.66	247.47	1.91
				Grand Totals:	2.50		214	0	2	13	37	162	24.3	0.06488	1099.45	351.16	3.13

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
56664	56665	3114292	0 - 0.14	0001X - 35.42	22	0	0	3	3	16	2019-63167	08/24/2019	35.45	C
											2019-61436	08/06/2019	35.46	PD
											2019-49482	04/18/2019	35.47	PD
											2020-17158	07/18/2020	35.48	B
											2019-57775	07/08/2019	35.48	B
											2020-23311	09/30/2020	35.48	C
											2019-57505	06/29/2019	35.48	PD
											2019-42329	02/13/2019	35.48	PD
											2020-24569	10/02/2020	35.48	PD
											2019-63756	08/31/2019	35.49	C
											2021-36674	12/21/2021	35.50	B
											2020-22287	09/17/2020	35.50	PD
											2021-7159	03/16/2021	35.51	PD
											2019-76480	12/18/2019	35.52	PD
											2020-14294	06/13/2020	35.52	PD
											2021-6993	03/17/2021	35.52	PD
											2021-25420	09/22/2021	35.53	PD
											2020-6062	02/14/2020	35.54	PD
											2020-7364	02/28/2020	35.55	PD
											2021-19734	07/28/2021	35.55	PD
											2021-7716	03/23/2021	35.55	PD
											2019-49302	04/10/2019	35.55	PD
56665	59694	3118793	0 - 0.01	0001X - 35.56	0	0	0	0	0	0				

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
59694	56666	3115060	0 - 0.13	0001X - 35.57	51	0	0	3	4	44	2021-5033	02/22/2021	35.58	PD
											2019-73793	11/26/2019	35.58	PD
											2019-63140	08/23/2019	35.58	PD
											2021-29434	10/29/2021	35.59	C
											2019-64302	09/09/2019	35.59	PD
											2021-32154	11/18/2021	35.59	PD
											2019-1909	01/13/2019	35.60	PD
											2020-33776	12/09/2020	35.60	PD
											2019-48725	04/05/2019	35.61	PD
											2021-18597	07/21/2021	35.61	PD
											2021-25459	09/18/2021	35.61	PD
											2019-4230	02/05/2019	35.62	C
											2021-25434	09/21/2021	35.62	C
											2019-69744	10/29/2019	35.62	PD
											2019-52667	05/19/2019	35.62	PD
											2021-4212	02/12/2021	35.62	PD
											2020-18864	08/09/2020	35.62	PD
											2020-6584	02/24/2020	35.62	PD
											2021-20645	08/07/2021	35.62	PD
											2021-25433	09/21/2021	35.62	PD
											2019-57764	07/10/2019	35.63	B
											2021-5782	03/04/2021	35.63	PD
											2020-22251	09/13/2020	35.63	PD
											2019-68590	10/21/2019	35.63	PD
											2019-44371	03/01/2019	35.63	PD
											2019-58809	07/20/2019	35.63	PD
											2021-24330	09/14/2021	35.64	B
											2021-30444	11/03/2021	35.64	C
											2019-50254	04/26/2019	35.64	PD
											2021-21107	08/08/2021	35.64	PD
											2021-32148	11/17/2021	35.64	PD
											2021-15653	06/19/2021	35.64	PD
											2020-16813	07/16/2020	35.64	PD
											2021-1547	01/20/2021	35.64	PD

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
											2019-58291	07/15/2019	35.65	B
											2019-78236	12/15/2019	35.65	PD
											2020-33133	12/20/2020	35.65	PD
											2019-57839	07/11/2019	35.65	PD
											2019-65092	09/14/2019	35.65	PD
											2019-54329	05/24/2019	35.65	PD
											2021-15120	06/12/2021	35.66	PD
											2020-18869	08/09/2020	35.67	PD
											2020-23157	09/22/2020	35.67	PD
											2021-16908	07/01/2021	35.67	PD
											2019-48728	04/05/2019	35.67	PD
											2020-23732	10/03/2020	35.68	PD
											2020-31788	12/15/2020	35.68	PD
											2020-22875	09/23/2020	35.68	PD
											2019-73777	11/08/2019	35.69	PD
											2020-13016	06/02/2020	35.69	PD
											2021-35917	12/17/2021	35.69	PD
53976	56666	3123598	0 - 0.07	0001X - 35.70	1	0	0	0	0	1	2020-11751	05/14/2020	35.74	PD
53976	56667	3117318	0 - 0.05	0001X - 35.77	0	0	0	0	0	0				
56667	57538	3117354	0 - 0.04	0001X - 35.82	1	0	0	0	0	1	2021-30383	11/04/2021	35.84	PD
57537	57538	3938160	0 - 0.05	0001X - 35.86	0	0	0	0	0	0				
57536	57537	3117355	0 - 0.08	0001X - 35.91	1	0	0	0	0	1	2021-9685	04/18/2021	35.98	PD
56668	57536	3068120	0 - 0.03	0001X - 35.99	0	0	0	0	0	0				
56668	64962	3123108	0 - 0.04	0001S - 23.56	0	0	0	0	0	0				
64962	64963	3129755	0 - 0.06	0001S - 23.60	0	0	0	0	0	0				
64963	56667	3116386	0 - 0.10	0001S - 23.66	0	0	0	0	0	0				
56667	66729	3153098	0 - 0.02	0001S - 23.76	0	0	0	0	0	0				
66729	53976	3153099	0 - 0.04	0001S - 23.78	1	0	0	0	0	1	2021-21105	08/10/2021	23.79	PD
53976	56666	3139705	0 - 0.07	0001S - 23.82	4	0	0	0	2	2	2020-29083	11/24/2020	23.84	C
											2020-19065	08/11/2020	23.86	PD
											2021-29433	10/26/2021	23.88	C
											2019-47527	03/20/2019	23.88	PD
57531	64963	3116422	0 - 0.21	0005X - 3.27	1	0	0	0	0	1	2019-58091	07/03/2019	3.34	PD

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
57524	57538	3114489	0 - 0.18	31F0136 - 0	4	0	0	1	0	3	2021-6263	03/06/2021	0.01	B
											2021-18120	07/10/2021	0.04	PD
											2021-29767	11/01/2021	0.05	PD
											2020-5190	02/14/2020	0.06	PD
57529	57537	3114494	0 - 0.19	31D0136 - 0	2	0	0	0	0	2	2021-6259	03/06/2021	0.09	PD
											2020-4159	01/24/2020	0.11	PD
55357	56665	5084586	0 - 0.05	3150051 - 0	0	0	0	0	0	0				
59694	59695	2038692	0 - 0.09	3200223 - 0	1	0	0	0	0	1	2019-63654	08/25/2019	0.05	PD
57532	64962	3116385	0 - 0.32	31A0136 - 0	0	0	0	0	0	0				
57528	57536	3114493	0 - 0.20	31B0136 - 0	0	0	0	0	0	0				
56667	66728	3153096	0 - 0.02	31Q0136 - 0	0	0	0	0	0	0				
66728	57523	3153097	0 - 0.16	31Q0136 - 0.02	2	0	0	0	0	2	2019-64275	09/04/2019	0.06	PD
											2019-3395	01/23/2019	0.09	PD
66728	66729	3413564	0 - 0.02	3209679 - 0	0	0	0	0	0	0				
65676	56667	3118596	0 - 0.04	3202095 - 0	0	0	0	0	0	0				
56667	65676	3139847	0 - 0.03	0005S - 0.40	0	0	0	0	0	0				
65676	56886	3139846	0 - 0.06	0005S - 0.43	1	0	0	0	0	1	2019-64221	08/29/2019	0.44	PD
				Totals:	92	0	0	7	9	76				

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												Hour of Day PM													
Day Of Week	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**Un**	**Tot**
SUNDAY	1	0	0	0	0	0	0	0	0	3	4	3	1	2	0	1	0	0	2	0	0	0	0	0	0	17
MONDAY	1	0	0	0	0	0	0	1	0	2	2	2	0	1	1	3	2	1	0	0	0	0	0	0	0	16
TUESDAY	1	0	0	0	0	0	0	0	3	2	2	4	4	3	2	2	6	0	3	1	1	1	0	0	0	35
WEDNESDAY	0	0	0	0	1	0	0	3	5	4	3	1	3	5	2	2	6	4	3	1	1	1	0	0	0	45
THURSDAY	0	1	0	0	0	0	1	2	5	0	2	1	3	1	3	4	6	2	4	0	1	0	2	0	0	38
FRIDAY	0	0	0	0	0	0	0	2	1	1	2	3	2	3	4	3	4	4	0	1	0	0	0	0	0	30
SATURDAY	0	0	1	0	0	1	0	0	0	3	5	5	3	5	3	2	1	3	0	0	0	0	0	1	0	33
Totals	3	1	1	0	1	1	1	8	14	15	20	19	16	20	15	17	25	14	12	3	3	2	2	1	0	**214**

Vehicle Counts by Type

Unit Type	Total
1-Passenger Car	218
2-(Sport) Utility Vehicle	137
3-Passenger Van	0
4-Cargo Van (10K lbs or Less)	8
5-Pickup	54
6-Motor Home	0
7-School Bus	1
8-Transit Bus	0
9-Motor Coach	0
10-Other Bus	0
11-Motorcycle	1
12-Moped	0
13-Low Speed Vehicle	0
14-Autocycle	0
15-Experimental	0
16-Other Light Trucks (10,000 lbs or Less)	1
17-Medium/Heavy Trucks (More than 10,000 lbs)	3
18-ATV - (4 wheel)	0
20-ATV - (2 wheel)	0
21-Snowmobile	0
22-Pedestrian	0
23-Bicyclist	2
24-Witness	13
25-Other	0
26-Construction	0
27-Farm Vehicle	0
Total	**438**

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	84	112	7	2	0	0	205
Ran Off Roadway	4	0	0	0	0	0	4
Failed to Yield Right-of-Way	26	28	0	0	0	0	54
Ran Red Light	3	1	0	0	0	0	4
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	2	0	0	0	0	0	2
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	2	1	0	0	0	0	3
Drove Too Fast For Conditions	4	1	0	0	0	0	5
Improper Turn	6	1	0	0	0	0	7
Improper Backing	0	2	0	0	0	0	2
Improper Passing	2	2	0	0	0	0	4
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	51	40	5	1	0	0	97
Failed to Keep in Proper Lane	19	5	0	0	0	0	24
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	5	0	0	0	0	0	5
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	1	0	0	0	0	0	1
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	4	0	0	0	0	0	4
Unknown	1	0	0	0	0	0	1
Total	**214**	**193**	**12**	**3**	**0**	**0**	**422**

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	206	194	12	3	0	0	415
Physically Impaired	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	1	0	0	0	0	1
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	1	0	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	6	0	0	0	0	0	6
Other	1	0	0	0	0	0	1
Total	**214**	**195**	**12**	**3**	**0**	**0**	**424**

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	40	0	0	0	0	40
20-24	51	0	0	0	0	51
25-29	42	0	0	0	0	42
30-39	88	0	0	0	0	88
40-49	60	0	0	0	0	60
50-59	58	0	0	0	0	58
60-69	49	0	0	0	0	49
70-79	21	0	0	0	0	21
80-Over	13	0	0	0	0	13
Unknown	1	2	0	0	0	3
Total	**423**	**2**	**0**	**0**	**0**	**425**

Crash Summary II - Characteristics

Most Harmful Event

Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	0
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	**Total**	**422**
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	1		
8-Other Non-Collision	1		
9-Pedestrian	0		
10-Pedalcycle	1		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	404		
14-Parked Motor Vehicle	3		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	1		
26-Embankment	0		
27-Guardrail Face	4		
28-Guardrail End	1		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	1		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	2		
33-Traffic Sign Support	1		
34-Traffic Signal Support	1		
35-Fence	0		
36-Mailbox	0		
37-Other Post, Pole, or Support	1		

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	2	2
B	13	14
C	37	44
PD	162	0
Total	**214**	**60**

Road Character

Road Grade	Total
1-Level	187
2-On Grade	23
3-Top of Hill	2
4-Bottom of Hill	2
5-Other	0
Total	**214**

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	97
2-Traffic Signals (Flashing)	0
3-Advisory/Warning Sign	2
4-Stop Signs - All Approaches	0
5-Stop Signs - Other	2
6-Yield Sign	29
7-Curve Warning Sign	2
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	80
14-Other	2
Total	**214**

Light

Light Condition	Total
1-Daylight	185
2-Dawn	0
3-Dusk	2
4-Dark - Lighted	26
5-Dark - Not Lighted	1
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	**214**

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	5	4	3	12
FEBRUARY	3	9	8	20
MARCH	5	2	8	15
APRIL	5	1	4	10
MAY	7	1	2	10
JUNE	4	6	3	13
JULY	8	5	15	28
AUGUST	9	4	6	19
SEPTEMBER	12	6	10	28
OCTOBER	5	7	8	20
NOVEMBER	7	5	12	24
DECEMBER	5	5	5	15
Total	**75**	**55**	**84**	**214**

Report is limited to the last 10 years of data.

Maine Department Of Transportation - Office of Safety, Crash Records Section

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End - Sideswipe	54	0	52	28	0	4	0	2	0	0	0	0	0	0	140
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	12	23	0	22	0	0	0	0	0	0	0	0	57
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	2	0	4	2	0	0	0	7	0	0	0	0	0	0	15
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**56**	**0**	**69**	**53**	**0**	**27**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**214**

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	20	0	0	0	0	0	1	1	0	0	1	23
Dark - Not Lighted	0	0	0	0	0	0	1	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	154	0	0	0	0	0	0	1	0	0	4	159
Dusk	2	0	0	0	0	0	0	0	0	0	0	2
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	6	0	0	0	0	0	0	0	0	0	8	14
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	3	3
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	7	7
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	2	0	0	2	5
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**182**	**1**	**0**	**0**	**0**	**0**	**2**	**4**	**0**	**0**	**25**	**214**

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☐ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

(No description).

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: 0005X	Start Node: 54899	Start Offset: 0	☑ Exclude First Node
	End Node: 63354	End Offset: 0	☐ Exclude Last Node
Route: 0005S	Start Node: 56891	Start Offset: 0	☑ Exclude First Node
	End Node: 57526	End Offset: 0	☑ Exclude Last Node
Route: 0005S	Start Node: 54897	Start Offset: 0	☑ Exclude First Node
	End Node: 66307	End Offset: 0	☑ Exclude Last Node
Route: 0005S	Start Node: 66307	Start Offset: 0	☑ Exclude First Node
	End Node: 54898	End Offset: 0	☐ Exclude Last Node
Route: 0005S	Start Node: 54898	Start Offset: 0	☑ Exclude First Node
	End Node: 66308	End Offset: 0	☑ Exclude Last Node
Route: 0005S	Start Node: 66308	Start Offset: 0	☑ Exclude First Node
	End Node: 56896	End Offset: 0	☑ Exclude Last Node
Route: 5195S	Start Node: 63354	Start Offset: 0	☑ Exclude First Node
	End Node: 57525	End Offset: 0	☐ Exclude Last Node
Route: 4195S	Start Node: 57525	Start Offset: 0	☑ Exclude First Node
	End Node: 57526	End Offset: 0	☑ Exclude Last Node
Route: 3140022	Start Node: 55267	Start Offset: 0	☑ Exclude First Node
	End Node: 54898	End Offset: 0	☑ Exclude Last Node
Route: 3209477	Start Node: 54898	Start Offset: 0	☑ Exclude First Node
	End Node: 66306	End Offset: 0	☑ Exclude Last Node
Route: 3201513	Start Node: 63354	Start Offset: 0	☑ Exclude First Node

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☐ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

(No description).

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

	End Node: 63357	End Offset: 0	☑ Exclude Last Node
Route: 3201514	Start Node: 63358	Start Offset: 0	☑ Exclude First Node
	End Node: 63356	End Offset: 0	☑ Exclude Last Node
Route: 3140014	Start Node: 54898	Start Offset: 0	☑ Exclude First Node
	End Node: 55274	End Offset: 0	☑ Exclude Last Node
Route: 3140015	Start Node: 66306	Start Offset: 0	☑ Exclude First Node
	End Node: 55271	End Offset: 0	☑ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
56894	0005X - 2.14	Int of JEANNETTE AV OCEAN PARK RD	2	0	0	0	0	0	0	0.0	6.013	0.00	0.32	0.00
												Statewide Crash Rate:	0.13	
54897	0005X - 2.01	Int of DEWEY AV OCEAN PARK RD	2	1	0	0	0	0	1	0.0	5.948	0.06	0.32	0.00
												Statewide Crash Rate:	0.13	
57526	0005X - 2.26	Int of FAP 9 1 SPUR NB FAP 9 1 W B OCEAN PARK RD	2	2	0	0	0	0	2	0.0	7.098	0.09	0.33	0.00
												Statewide Crash Rate:	0.14	
56895	0005X - 2.07	Int of MELVIN AV OCEAN PARK RD	2	1	0	0	0	0	1	0.0	5.984	0.06	0.32	0.00
												Statewide Crash Rate:	0.13	
56896	0005X - 1.96	Int of OLYMPIA AV SACO AV	2	0	0	0	0	0	0	0.0	4.707	0.00	0.34	0.00
												Statewide Crash Rate:	0.13	
57527	0005X - 2.32	TL Old Orchard Beach Saco	2	0	0	0	0	0	0	0.0	3.469	0.00	0.39	0.00
												Statewide Crash Rate:	0.14	
63354	0005X - 2.37	Int of FAP 9 1 SPUR NB FAP 91 RD INV 3201513	2	3	0	0	0	2	1	66.7	5.295	0.19	0.35	0.00
												Statewide Crash Rate:	0.14	
P66308	0005X - 1.98	Int of OCEAN PARK RD SACO AV	2	27	1	0	1	4	21	22.2	6.952	1.29	0.31	4.18
												Statewide Crash Rate:	0.13	
56893	0005X - 2.17	Int of OCEAN PARK RD SMITH WHEEL RD	2	5	0	0	0	2	3	40.0	6.973	0.24	0.31	0.00
												Statewide Crash Rate:	0.13	
A66307	0005X - 1.99	Non Int OCEAN PARK RD	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
												Statewide Crash Rate:	0.13	
69072	0005X - 2.22	Int of OCEAN PARK RD RESERVE AV	2	3	0	0	1	0	2	33.3	7.081	0.14	0.31	0.00
												Statewide Crash Rate:	0.13	
56892	0005X - 2.20	Non Int OCEAN PARK RD	2	0	0	0	0	0	0	0.0	6.825	0.00	0.31	0.00
												Statewide Crash Rate:	0.13	
58288	0005S - 1.37	TL Old Orchard Beach Saco	2	0	0	0	0	0	0	0.0	1.863	0.00	0.43	0.00
												Statewide Crash Rate:	0.13	
63357	0005S - 1.28	Int of OCEAN PARK RD RD INV 3201513	2	0	0	0	0	0	0	0.0	2.802	0.00	0.39	0.00
												Statewide Crash Rate:	0.13	
63356	0005S - 1.31	Int of OCEAN PARK RD RD INV 3201514	2	0	0	0	0	0	0	0.0	1.863	0.00	0.43	0.00
												Statewide Crash Rate:	0.13	
A54898	0005S - 1.45	Int of OCEAN PARK RD, OLD ORCHARD RD, SACO AV, TEM	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
												Statewide Crash Rate:	0.13	
57525	5195S - 0.87	TL Old Orchard Beach Saco	2	0	0	0	0	0	0	0.0	1.673	0.00	0.47	0.00
												Statewide Crash Rate:	0.14	
66306	3140022 - 1.38	Int of OLD SALT RD TEMPLE AV TEMPLE AVE	2	0	0	0	0	0	0	0.0	1.670	0.00	0.45	0.00
												Statewide Crash Rate:	0.13	
63358	3201513 - 0.02	Int of RD INV 3201513 RD INV 3201514	2	0	0	0	0	0	0	0.0	1.289	0.00	0.47	0.00
												Statewide Crash Rate:	0.13	
Study Years:	3.00	NODE TOTALS:		42	1	0	2	8	31	26.2	77.505	0.18	0.19	0.94

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
54899	56896	3117169	0 - 0.05	0005X - 1.91	0.05	2	8	0	0	1	1	6	25.0	0.00231	1156.83	475.65	2.43
Int of OREGON ST, SACO AV				ST RTE 5											Statewide Crash Rate: 158.26		
66308	56896	3117173	0 - 0.02	0005X - 1.96	0.02	2	0	0	0	0	0	0	0.0	0.00048	0.00	665.47	0.00
Int of OCEAN PARK RD SACO AV				ST RTE 5											Statewide Crash Rate: 158.26		
66308	66307	3130360	0 - 0.01	0005X - 1.98	0.01	2	0	0	0	0	0	0	0.0	0.00028	0.00	681.72	0.00
Int of OCEAN PARK RD SACO AV				ST RTE 5											Statewide Crash Rate: 158.26		
54897	66307	3117174	0 - 0.02	0005X - 1.99	0.02	2	1	0	0	0	0	1	0.0	0.00059	561.37	645.39	0.00
Int of DEWEY AV OCEAN PARK RD				ST RTE 5											Statewide Crash Rate: 158.26		
54897	56895	3117171	0 - 0.06	0005X - 2.01	0.06	2	6	0	0	1	0	5	16.7	0.00356	561.44	424.95	1.32
Int of DEWEY AV OCEAN PARK RD				ST RTE 5											Statewide Crash Rate: 158.26		
56894	56895	3114397	0 - 0.07	0005X - 2.07	0.07	2	4	0	0	0	0	4	0.0	0.00418	319.16	407.84	0.00
Int of JEANNETTE AV OCEAN PARK RD				ST RTE 5											Statewide Crash Rate: 158.26		
56893	56894	3114396	0 - 0.03	0005X - 2.14	0.03	2	0	0	0	0	0	0	0.0	0.00179	0.00	507.06	0.00
Int of OCEAN PARK RD SMITH WHEEL RD				ST RTE 5											Statewide Crash Rate: 158.26		
56892	56893	3114394	0 - 0.03	0005X - 2.17	0.03	2	2	0	0	0	0	2	0.0	0.00201	331.39	492.56	0.00
Non Int OCEAN PARK RD				ST RTE 5											Statewide Crash Rate: 158.26		
56892	69072	3505850	0 - 0.02	0005X - 2.20	0.02	2	0	0	0	0	0	0	0.0	0.00139	0.00	540.29	0.00
Non Int OCEAN PARK RD				ST RTE 5											Statewide Crash Rate: 158.26		
69072	57526	3505851	0 - 0.04	0005X - 2.22	0.04	2	3	0	0	0	2	1	66.7	0.00285	350.85	450.24	0.00
Int of OCEAN PARK RD RESERVE AV				ST RTE 5											Statewide Crash Rate: 158.26		
57526	57527	3114490	0 - 0.06	0005X - 2.26	0.06	2	0	0	0	0	0	0	0.0	0.00208	0.00	376.37	0.00
Int of FAP 9 1 SPUR NB FAP 9 1 W B OCEAN PARK RD				ST RTE 5											Statewide Crash Rate: 111.78		
57527	63354	3123029	0 - 0.05	0005X - 2.32	0.05	2	0	0	0	0	0	0	0.0	0.00173	0.00	393.25	0.00
TL Old Orchard Beach Saco				ST RTE 5											Statewide Crash Rate: 111.78		
56891	63357	3116022	0 - 0.30	0005S - 0.98	0.30	2	4	0	0	0	1	3	25.0	0.00927	143.90	334.64	0.00
Int of CUMBERLAND AV OCEAN PARK RD				ST RTE 5S											Statewide Crash Rate: 158.26		
63357	63356	3116023	0 - 0.03	0005S - 1.28	0.03	2	0	0	0	0	0	0	0.0	0.00055	0.00	653.13	0.00
Int of OCEAN PARK RD RD INV 3201513				ST RTE 5S											Statewide Crash Rate: 158.26		
63356	58288	3139439	0 - 0.06	0005S - 1.31	0.06	2	0	0	0	0	0	0	0.0	0.00112	0.00	568.80	0.00
Int of OCEAN PARK RD RD INV 3201514				ST RTE 5S											Statewide Crash Rate: 158.26		
57526	58288	3114491	0 - 0.05	0005S - 1.37	0.05	2	0	0	0	0	0	0	0.0	0.00093	0.00	592.39	0.00
Int of FAP 9 1 SPUR NB FAP 9 1 W B OCEAN PARK RD				ST RTE 5S											Statewide Crash Rate: 158.26		
54897	66307	3140071	0 - 0.02	0005S - 1.42	0.02	2	0	0	0	0	0	0	0.0	0.00059	0.00	645.39	0.00
Int of DEWEY AV OCEAN PARK RD				ST RTE 5S											Statewide Crash Rate: 158.26		
66307	54898	3068185	0 - 0.01	0005S - 1.44	0.01	2	0	0	0	0	0	0	0.0	0.00028	0.00	681.72	0.00
Non Int OCEAN PARK RD				ST RTE 5S											Statewide Crash Rate: 158.26		
54898	66308	3117380	0 - 0.01	0005S - 1.45	0.01	2	0	0	0	0	0	0	0.0	0.00028	0.00	681.72	0.00
Int of OCEAN PARK RD, OLD ORCHARD RD, SACO AV, TEMPLE AV, TEMPLE AVE				ST RTE 5S											Statewide Crash Rate: 158.26		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
66308	56896	3140072	0 - 0.02	0005S - 1.46	0.02	2	1	0	0	0	0	1	0.0	0.00048	698.41	665.47	1.05
Int of OCEAN PARK RD SACO AV				ST RTE 5S											Statewide Crash Rate: 158.26		
63354	57525	3118957	0 - 0.06	5195S - 0.81	0.06	2	0	0	0	0	0	0	0.0	0.00100	0.00	442.05	0.00
Int of FAP 9 1 SPUR NB FAP 91 RD INV 3201513				RD INV 5195S											Statewide Crash Rate: 111.78		
57525	57526	3123681	0 - 0.05	4195S - 0	0.05	2	2	0	1	0	0	1	50.0	0.00084	797.07	456.21	1.75
TL Old Orchard Beach Saco				RD INV 4195S											Statewide Crash Rate: 111.78		
66306	55267	3117172	0 - 0.17	3140022 - 1.21	0.17	2	2	0	0	1	0	1	50.0	0.00284	234.94	450.76	0.00
Int of OLD SALT RD TEMPLE AV TEMPLE AVE				RD INV 31 40022											Statewide Crash Rate: 158.26		
54898	66306	3120272	0 - 0.02	3140022 - 1.38	0.02	2	0	0	0	0	0	0	0.0	0.00016	0.00	592.55	0.00
Int of OCEAN PARK RD, OLD ORCHARD RD, SACO AV, TEMPLE AV, TEMPLE AVE				RD INV 31 40022											Statewide Crash Rate: 158.26		
54898	66306	3123222	0 - 0.02	3209477 - 0	0.02	2	1	0	0	0	1	0	100.0	0.00016	2105.21	592.55	3.55
Int of OCEAN PARK RD, OLD ORCHARD RD, SACO AV, TEMPLE AV, TEMPLE AVE				RD INV 3209477											Statewide Crash Rate: 158.26		
63354	63358	3118815	0 - 0.02	3201513 - 0	0.02	2	0	0	0	0	0	0	0.0	0.00026	0.00	677.03	0.00
Int of FAP 9 1 SPUR NB FAP 91 RD INV 3201513				RD INV 3201513											Statewide Crash Rate: 158.26		
63358	63357	3116024	0 - 0.03	3201513 - 0.02	0.03	2	0	0	0	0	0	0	0.0	0.00038	0.00	679.76	0.00
Int of RD INV 3201513 RD INV 3201514				RD INV 3201513											Statewide Crash Rate: 158.26		
63358	63356	3129065	0 - 0.01	3201514 - 0	0.01	2	0	0	0	0	0	0	0.0	0.00000	0.00	-	0.00
Int of RD INV 3201513 RD INV 3201514				RD INV 3201514											Statewide Crash Rate: 158.26	42376.93	
54898	55274	3117170	0 - 0.09	3140014 - 0	0.09	2	0	0	0	0	0	0	0.0	0.00145	0.00	534.81	0.00
Int of OCEAN PARK RD, OLD ORCHARD RD, SACO AV, TEMPLE AV, TEMPLE AVE				RD INV 31 40014											Statewide Crash Rate: 158.26		
66306	55271	5084559	0 - 0.28	3140015 - 0	0.28	2	0	0	0	0	0	0	0.0	0.00024	0.00	1454.25	0.00
Int of OLD SALT RD TEMPLE AV TEMPLE AVE				RD INV 31 40015											Statewide Crash Rate: 351.28		
Study Years: 3.00				Section Totals:	1.71		34	0	1	3	5	25	26.5	0.04409	257.05	237.29	1.08
				Grand Totals:	1.71		76	1	1	5	13	56	26.3	0.04409	574.58	358.58	1.60

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
54899	56896	3117169	0 - 0.05	0005X - 1.91	8	0	0	1	1	6	2019-62703	08/24/2019	1.92	C
											2021-22349	08/21/2021	1.93	PD
											2021-20684	08/09/2021	1.93	PD
											2021-20683	08/07/2021	1.93	PD
											2021-26735	10/05/2021	1.94	PD
											2020-14468	05/30/2020	1.95	B
											2021-15547	06/20/2021	1.95	PD
											2021-31429	11/15/2021	1.95	PD
66308	56896	3117173	0 - 0.02	0005X - 1.96	0	0	0	0	0	0				
66308	66307	3130360	0 - 0.01	0005X - 1.98	0	0	0	0	0	0				
54897	66307	3117174	0 - 0.02	0005X - 1.99	1	0	0	0	0	1	2021-7216	03/21/2021	2	PD
54897	56895	3117171	0 - 0.06	0005X - 2.01	6	0	0	1	0	5	2021-23650	09/04/2021	2.04	B
											2020-22599	09/22/2020	2.04	PD
											2019-49401	04/15/2019	2.04	PD
											2021-7676	03/26/2021	2.04	PD
											2021-15164	06/19/2021	2.06	PD
											2019-59312	07/22/2019	2.06	PD
56894	56895	3114397	0 - 0.07	0005X - 2.07	4	0	0	0	0	4	2020-10492	04/21/2020	2.08	PD
											2019-57188	07/03/2019	2.08	PD
											2021-20534	08/07/2021	2.09	PD
											2021-26903	10/01/2021	2.12	PD
56893	56894	3114396	0 - 0.03	0005X - 2.14	0	0	0	0	0	0				
56892	56893	3114394	0 - 0.03	0005X - 2.17	2	0	0	0	0	2	2019-78187	12/30/2019	2.18	PD
											2019-55508	06/17/2019	2.19	PD
56892	69072	3505850	0 - 0.02	0005X - 2.20	0	0	0	0	0	0				
69072	57526	3505851	0 - 0.04	0005X - 2.22	3	0	0	0	2	1	2021-20347	08/06/2021	2.23	PD
											2020-31271	12/13/2020	2.25	C
											2019-67612	10/10/2019	2.25	C
57526	57527	3114490	0 - 0.06	0005X - 2.26	0	0	0	0	0	0				
57527	63354	3123029	0 - 0.05	0005X - 2.32	0	0	0	0	0	0				
56891	63357	3116022	0 - 0.30	0005S - 0.98	4	0	0	0	1	3	2020-27411	11/08/2020	1.04	PD
											2021-15117	06/12/2021	1.13	PD
											2019-67465	09/30/2019	1.21	C
											2019-4906	02/09/2019	1.24	PD

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
63357	63356	3116023	0 - 0.03	0005S - 1.28	0	0	0	0	0	0				
63356	58288	3139439	0 - 0.06	0005S - 1.31	0	0	0	0	0	0				
57526	58288	3114491	0 - 0.05	0005S - 1.37	0	0	0	0	0	0				
54897	66307	3140071	0 - 0.02	0005S - 1.42	0	0	0	0	0	0				
66307	54898	3068185	0 - 0.01	0005S - 1.44	0	0	0	0	0	0				
54898	66308	3117380	0 - 0.01	0005S - 1.45	0	0	0	0	0	0				
66308	56896	3140072	0 - 0.02	0005S - 1.46	1	0	0	0	0	1	2019-52087	05/09/2019	1.47	PD
63354	57525	3118957	0 - 0.06	5195S - 0.81	0	0	0	0	0	0				
57525	57526	3123681	0 - 0.05	4195S - 0	2	0	1	0	0	1	2020-32192	11/08/2020	0.02	A
											2020-25111	10/19/2020	0.04	PD
66306	55267	3117172	0 - 0.17	3140022 - 1.21	2	0	0	1	0	1	2019-49400	04/15/2019	1.23	B
											2020-20362	08/27/2020	1.37	PD
54898	66306	3120272	0 - 0.02	3140022 - 1.38	0	0	0	0	0	0				
54898	66306	3123222	0 - 0.02	3209477 - 0	1	0	0	0	1	0	2020-21706	09/13/2020	0.01	C
63354	63358	3118815	0 - 0.02	3201513 - 0	0	0	0	0	0	0				
63358	63357	3116024	0 - 0.03	3201513 - 0.02	0	0	0	0	0	0				
63358	63356	3129065	0 - 0.01	3201514 - 0	0	0	0	0	0	0				
54898	55274	3117170	0 - 0.09	3140014 - 0	0	0	0	0	0	0				
66306	55271	5084559	0 - 0.28	3140015 - 0	0	0	0	0	0	0				
				Totals:	34	0	1	3	5	25				

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												PM												
	Hour of Day																								
Day Of Week	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot
SUNDAY	0	0	0	0	0	0	0	0	1	0	1	1	1	3	4	0	1	0	0	0	1	0	0	0	0	13
MONDAY	0	0	0	0	0	0	0	0	2	1	0	3	1	2	2	0	2	0	0	0	1	1	0	0	0	15
TUESDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	1	0	0	0	0	0	0	0	7
WEDNESDAY	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	5
THURSDAY	0	0	0	0	0	0	0	1	2	0	1	1	0	2	1	0	1	1	0	0	0	0	0	0	0	10
FRIDAY	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	1	2	2	1	0	0	0	0	1	0	10
SATURDAY	1	2	0	0	0	0	0	0	1	0	1	1	2	0	1	1	2	1	0	2	1	0	0	0	0	16
Totals	1	2	0	0	0	0	0	3	6	1	3	6	5	9	9	7	10	6	1	2	3	1	0	1	0	76

Vehicle Counts by Type

Unit Type	Total
1-Passenger Car	75
2-(Sport) Utility Vehicle	49
3-Passenger Van	0
4-Cargo Van (10K lbs or Less)	1
5-Pickup	15
6-Motor Home	2
7-School Bus	0
8-Transit Bus	1
9-Motor Coach	0
10-Other Bus	0
11-Motorcycle	4
12-Moped	0
13-Low Speed Vehicle	0
14-Autocycle	0
15-Experimental	0
16-Other Light Trucks (10,000 lbs or Less)	0
17-Medium/Heavy Trucks (More than 10,000 lbs)	2
18-ATV - (4 wheel)	0
20-ATV - (2 wheel)	0
21-Snowmobile	0
22-Pedestrian	0
23-Bicyclist	0
24-Witness	15
25-Other	1
26-Construction	0
27-Farm Vehicle	0
Total	165

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	38	35	4	0	0	0	77
Ran Off Roadway	4	0	0	0	0	0	4
Failed to Yield Right-of-Way	6	18	0	0	0	0	24
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	2	0	0	0	0	0	2
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	2	0	0	0	0	0	2
Drove Too Fast For Conditions	1	1	0	0	0	0	2
Improper Turn	5	1	0	0	0	0	6
Improper Backing	0	1	0	0	0	0	1
Improper Passing	1	1	0	0	0	0	2
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	5	4	0	1	0	0	10
Failed to Keep in Proper Lane	3	3	0	0	0	0	6
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	1	0	0	0	0	0	1
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	5	0	0	0	0	0	5
Unknown	2	3	0	0	0	0	5
Total	75	67	4	1	0	0	147

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	73	63	4	1	0	0	141
Physically Impaired	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	2	0	0	0	0	2
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	2	1	0	0	0	0	3
Other	0	0	0	0	0	0	0
Total	75	66	4	1	0	0	146

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	14	0	0	0	0	14
20-24	17	0	0	0	0	17
25-29	17	0	0	0	0	17
30-39	21	0	0	0	0	21
40-49	23	0	0	0	0	23
50-59	20	0	0	0	0	20
60-69	17	0	0	0	0	17
70-79	17	0	0	0	0	17
80-Over	3	0	0	0	0	3
Unknown	1	0	0	0	0	1
Total	150	0	0	0	0	150

Crash Summary II - Characteristics

Most Harmful Event

Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	3	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	2	39-Unknown	22
3-Immersion	2	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	2	Total	150
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	0		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	1		
13-Motor Vehicle in Transport	108		
14-Parked Motor Vehicle	7		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	1		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	2		
32-Utility Pole / Light Support	0		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post, Pole, or Support	0		

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	1	1
A	1	1
B	5	6
C	13	16
PD	56	0
Total	76	24

Road Character

Road Grade	Total
1-Level	73
2-On Grade	2
3-Top of Hill	0
4-Bottom of Hill	1
5-Other	0
Total	76

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	0
2-Traffic Signals (Flashing)	1
3-Advisory/Warning Sign	1
4-Stop Signs - All Approaches	2
5-Stop Signs - Other	16
6-Yield Sign	13
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	37
14-Other	6
Total	76

Light

Light Condition	Total
1-Daylight	61
2-Dawn	0
3-Dusk	2
4-Dark - Lighted	13
5-Dark - Not Lighted	0
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	76

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	0	0	1	1
FEBRUARY	1	2	1	4
MARCH	0	0	3	3
APRIL	2	2	0	4
MAY	1	2	5	8
JUNE	3	1	3	7
JULY	6	2	3	11
AUGUST	4	3	7	14
SEPTEMBER	2	3	2	7
OCTOBER	1	1	4	6
NOVEMBER	1	4	2	7
DECEMBER	2	1	1	4
Total	23	21	32	76

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End - Sideswipe	14	1	5	5	0	6	0	0	0	0	0	0	0	0	31
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	10	16	2	6	0	0	0	0	0	0	0	0	34
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	2	2	3	0	0	0	0	0	0	0	0	0	0	0	7
All Other Animal	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	19	4	18	21	2	12	0	0	0	0	0	0	0	0	76

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	11	0	0	0	0	0	0	0	0	0	0	11
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	49	0	0	0	0	0	0	0	0	0	1	50
Dusk	1	0	0	0	0	0	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	5	0	0	0	0	0	0	0	0	0	1	6
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	3	3
Dusk	0	0	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	1	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	1	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	67	0	0	0	0	0	0	1	0	0	8	76

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☐ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Saco/OOB - additional segments requested
Main St & Ocean Park Rd areas

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: 3150106	Start Node: 55356	Start Offset: 0	☑ Exclude First Node
	End Node: 56666	End Offset: 0	☑ Exclude Last Node
Route: 5195S	Start Node: 71285	Start Offset: 0	☑ Exclude First Node
	End Node: 63354	End Offset: 0	☑ Exclude Last Node
Route: 0005X	Start Node: 63354	Start Offset: 0	☑ Exclude First Node
	End Node: 71286	End Offset: 0	☑ Exclude Last Node
Route: 3140018	Start Node: 55249	Start Offset: 0	☑ Exclude First Node
	End Node: 69072	End Offset: 0	☑ Exclude Last Node
Route: 3140017	Start Node: 55252	Start Offset: 0	☑ Exclude First Node
	End Node: 56896	End Offset: 0	☑ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
Study Years:		NODE TOTALS:		0	888	888	888	888	888	100.0	000.000	0000.00	0.00	000.00

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
55356	56666	5084583	0 - 0.10	3150106 - 0.38	0.10	2	2	0	0	0	0	2	0.0	0.00026	2515.82	1434.69	1.75
Int of LOUISE ST STOCKMAN AV				RD INV 31 50106											Statewide Crash Rate: 351.28		
71285	63354	3967990	0 - 0.57	5195S - 0.24	0.57	2	2	0	0	0	0	1	0.0	0.01041	64.06	249.90	0.00
Int of CROSSOVER RD FAP 91				RD INV 5195S											Statewide Crash Rate: 111.78		
63354	71286	3967991	0 - 0.57	0005X - 2.37	0.57	2	1	0	0	0	0	1	0.0	0.01347	24.75	234.89	0.00
Int of FAP 9 1 SPUR NB FAP 91 RD INV 3201513				ST RTE 5											Statewide Crash Rate: 111.78		
55249	69072	5084578	0 - 0.06	3140018 - 0	0.06	2	3	0	0	0	0	2	0.0	0.00005	18338.19	1069.68	17.14
End of RESERVE AV				RD INV 31 40018											Statewide Crash Rate: 351.28		
55252	56896	236423	0 - 0.12	3140017 - 0	0.12	2	1	0	0	0	0	1	0.0	0.00004	9059.94	416.84	21.74
3105587 OOB,OAK AVE,OLYMPIA AVE				RD INV 31 40017											Statewide Crash Rate: 351.28		
Study Years: 3.00				Section Totals:	1.42		9	0	0	0	0	7	0.0	0.02423	123.80	211.01	0.59
				Grand Totals:	1.42		9	0	0	0	0	7	0.0	0.02423	123.80	318.81	0.39

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
55356	56666	5084583	0 - 0.10	3150106 - 0.38	2	0	0	0	0	2	2019-55205	06/14/2019	0.46	PD
											2021-8240	03/30/2021	0.46	PD
71285	63354	3967990	0 - 0.57	5195S - 0.24	2	0	0	0	0	1	2021-21066	08/13/2021	0.77	
											2021-37794	12/26/2021	0.77	PD
63354	71286	3967991	0 - 0.57	0005X - 2.37	1	0	0	0	0	1	2021-19892	07/31/2021	2.47	PD
55249	69072	5084578	0 - 0.06	3140018 - 0	3	0	0	0	0	2	2019-131	01/01/2019	0.03	PD
											2019-4848	02/10/2019	0.05	
											2019-78707	12/31/2019	0.05	PD
55252	56896	236423	0 - 0.12	3140017 - 0	1	0	0	0	0	1	2019-43147	02/21/2019	0.02	PD
				Totals:	9	0	0	0	0	7				

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												Hour of Day	PM											
Day Of Week	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2
MONDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TUESDAY	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3
WEDNESDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
THURSDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
FRIDAY	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
SATURDAY	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Totals	1	1	0	0	0	0	0	1	0	0	1	0	1	0	0	0	2	0	0	0	0	2	0	0	0	9

Vehicle Counts by Type

Unit Type	Total
1-Passenger Car	7
2-(Sport) Utility Vehicle	3
3-Passenger Van	0
4-Cargo Van (10K lbs or Less)	0
5-Pickup	4
6-Motor Home	0
7-School Bus	0
8-Transit Bus	0
9-Motor Coach	0
10-Other Bus	0
11-Motorcycle	0
12-Moped	0
13-Low Speed Vehicle	0
14-Autocycle	0
15-Experimental	0
16-Other Light Trucks (10,000 lbs or Less)	0
17-Medium/Heavy Trucks (More than 10,000 lbs)	0
18-ATV - (4 wheel)	0
20-ATV - (2 wheel)	0
21-Snowmobile	0
22-Pedestrian	0

Unit Type	Total
23-Bicyclist	0
24-Witness	0
25-Other	1
26-Construction	0
27-Farm Vehicle	0
Total	15

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	1	3	0	0	0	0	4
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	1	0	0	0	0	0	1
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	0	0	0	0	0	0	0
Improper Turn	0	0	0	0	0	0	0
Improper Backing	1	1	0	0	0	0	2
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	1	0	0	0	0	0	1
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	0	0	0	0	0	0
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	1	0	0	0	0	0	1
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	1	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0
Total	6	4	0	0	0	0	10

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	4	4	0	0	0	0	8
Physically Impaired	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	1	0	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	1	0	0	0	0	0	1
Other	0	0	0	0	0	0	0
Total	6	4	0	0	0	0	10

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	1	0	0	0	0	1
20-24	1	0	0	0	0	1
25-29	0	0	0	0	0	0
30-39	1	0	0	0	0	1
40-49	5	0	0	0	0	5
50-59	2	0	0	0	0	2
60-69	3	0	0	0	0	3
70-79	0	0	0	0	0	0
80-Over	0	0	0	0	0	0
Unknown	2	0	0	0	0	2
Total	15	0	0	0	0	15

Crash Summary II - Characteristics

Most Harmful Event

Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
2-Fire / Explosion	0	39-Unknown	0
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	Total	14
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	0		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	9		
14-Parked Motor Vehicle	3		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	2		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	0		
33-Traffic Sign Support	0		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post, Pole, or Support	0		

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	0	0
C	0	0
PD	7	0
Total	7	0

Road Character

Road Grade	Total
1-Level	8
2-On Grade	0
3-Top of Hill	0
4-Bottom of Hill	1
5-Other	0
Total	9

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	0
2-Traffic Signals (Flashing)	1
3-Advisory/Warning Sign	0
4-Stop Signs - All Approaches	0
5-Stop Signs - Other	0
6-Yield Sign	0
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	8
14-Other	0
Total	9

Light

Light Condition	Total
1-Daylight	4
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	2
5-Dark - Not Lighted	3
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	9

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	1	0	0	1
FEBRUARY	2	0	0	2
MARCH	0	0	1	1
APRIL	0	0	0	0
MAY	0	0	0	0
JUNE	1	0	0	1
JULY	0	0	1	1
AUGUST	0	0	1	1
SEPTEMBER	0	0	0	0
OCTOBER	0	0	0	0
NOVEMBER	0	0	0	0
DECEMBER	1	0	1	2
Total	5	0	4	9

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End - Sideswipe	2	0	0	0	0	3	0	0	0	0	0	0	0	0	5
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	0	0	0	0	4	0	0	0	0	0	0	0	0	9

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	1	1	0	0	0	0	0	0	0	0	0	2
Dark - Not Lighted	3	0	0	0	0	0	0	0	0	0	0	3
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	3	0	0	0	0	0	0	0	0	0	0	3
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	1	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	7	1	0	0	0	0	1	0	0	0	0	9

H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **OLD ORCHARD BEACH**

LOW NODE: **66308** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

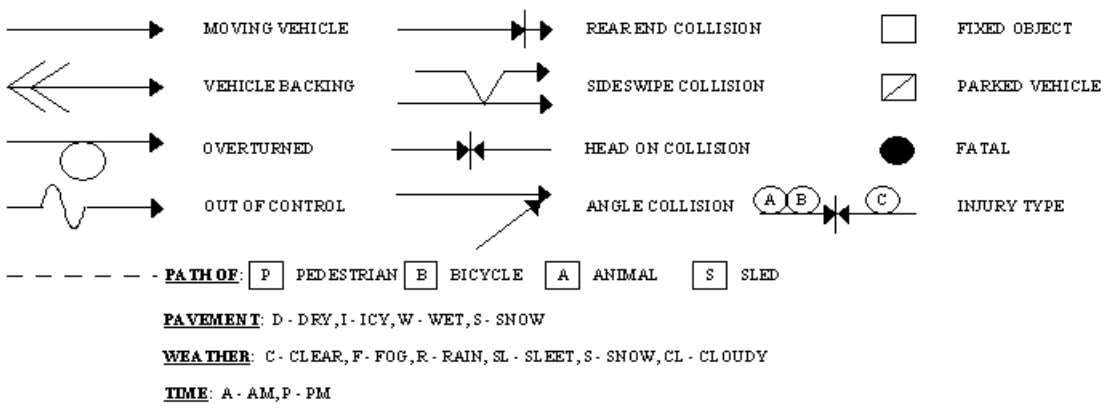
DESCRIPTION: **Jct Ocean Park/OOB Rd/Saco & Temple Ave**

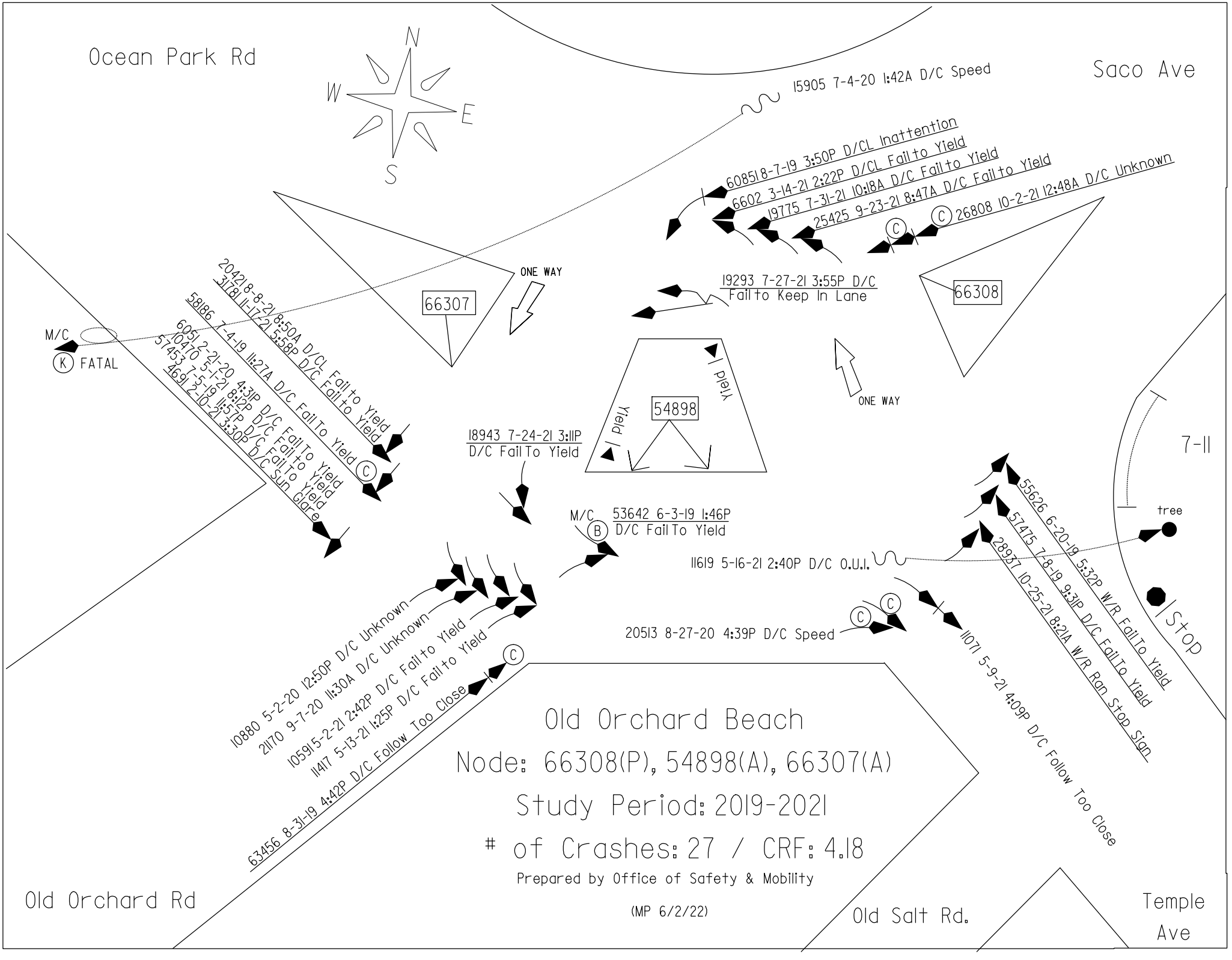
RTE # / RD #: **0005S** DATE DRAWN: **6/2/2022** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2019** STUDY TO: **12/31/2021**

CRASH RATE: **1.29** CRF: **4.18** % INJURY: **22.2** TOTAL CRASHES: **27**

LEGEND




Ocean Park Rd
Saco Ave
Old Orchard Rd
Old Salt Rd.
Temple Ave
N
W
E
S
15905 7-4-20 1:42A D/C Speed
60851 8-7-19 3:50P D/CL Inattention
6602 3-14-21 2:22P D/CL Fail to Yield
19775 7-31-21 10:18A D/C Fail to Yield
25425 9-23-21 8:47A D/C Fail to Yield
C 26808 10-2-21 12:48A D/C Unknown
66308
19293 7-27-21 3:55P D/C
Fail to Keep In Lane
ONE WAY
66307
20421 8-8-21 8:50A D/CL Fail to Yield
31781 11-17-21 5:58P D/C Fail to Yield
58186 7-4-19 11:27A D/C Fail To Yield C
60512-21-20 4:31P D/C Fail To Yield
10470 5-1-21 8:12P D/C Fail To Yield
57453 7-5-19 11:57P D/C Fail To Yield
46912-10-21 3:30P D/C Sun Glare
M/C
K FATAL
54898
Yield
Yield
ONE WAY
18943 7-24-21 3:11P
D/C Fail To Yield
M/C 53642 6-3-19 1:46P
B D/C Fail To Yield
7-11
tree
55626 6-20-19 5:32P W/R Fail To Yield
57475 7-8-19 9:3P D/C Fail To Yield
28937 10-25-21 8:21A W/R Ran Stop Sign
Stop
11619 5-16-21 2:40P D/C O.U.I.
20513 8-27-20 4:39P D/C Speed
11071 5-9-21 4:09P D/C Follow Too Close
10880 5-2-20 12:50P D/C Unknown
21170 9-7-20 11:30A D/C Unknown
10591 5-2-21 2:42P D/C Fail to Yield
11417 5-13-21 1:25P D/C Fail to Yield
C
63456 8-31-19 4:42P D/C Follow Too Close
Old Orchard Beach
Node: 66308(P), 54898(A), 66307(A)
Study Period: 2019-2021
# of Crashes: 27 / CRF: 4.18
Prepared by Office of Safety & Mobility
(MP 6/2/22)

H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **SACO**

LOW NODE: **56667** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

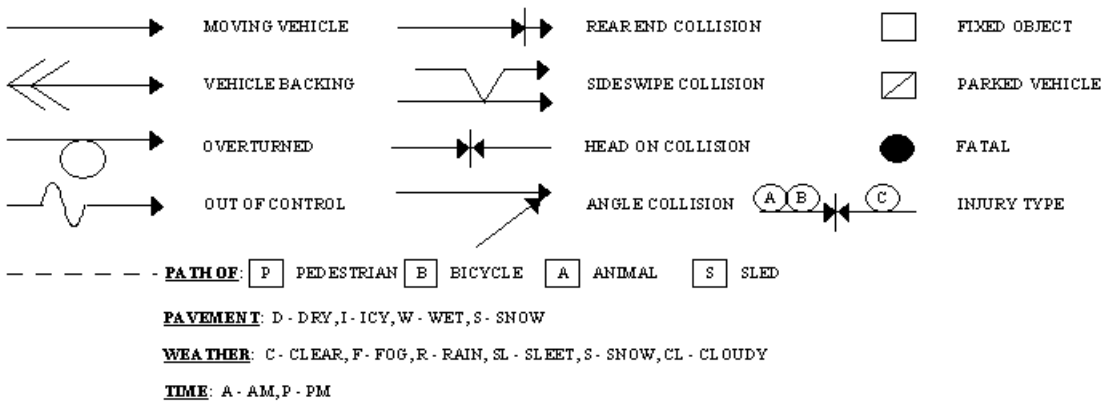
DESCRIPTION: **Jct Main St & Ocean Pk Rd/I-195 EB Off Ramp**

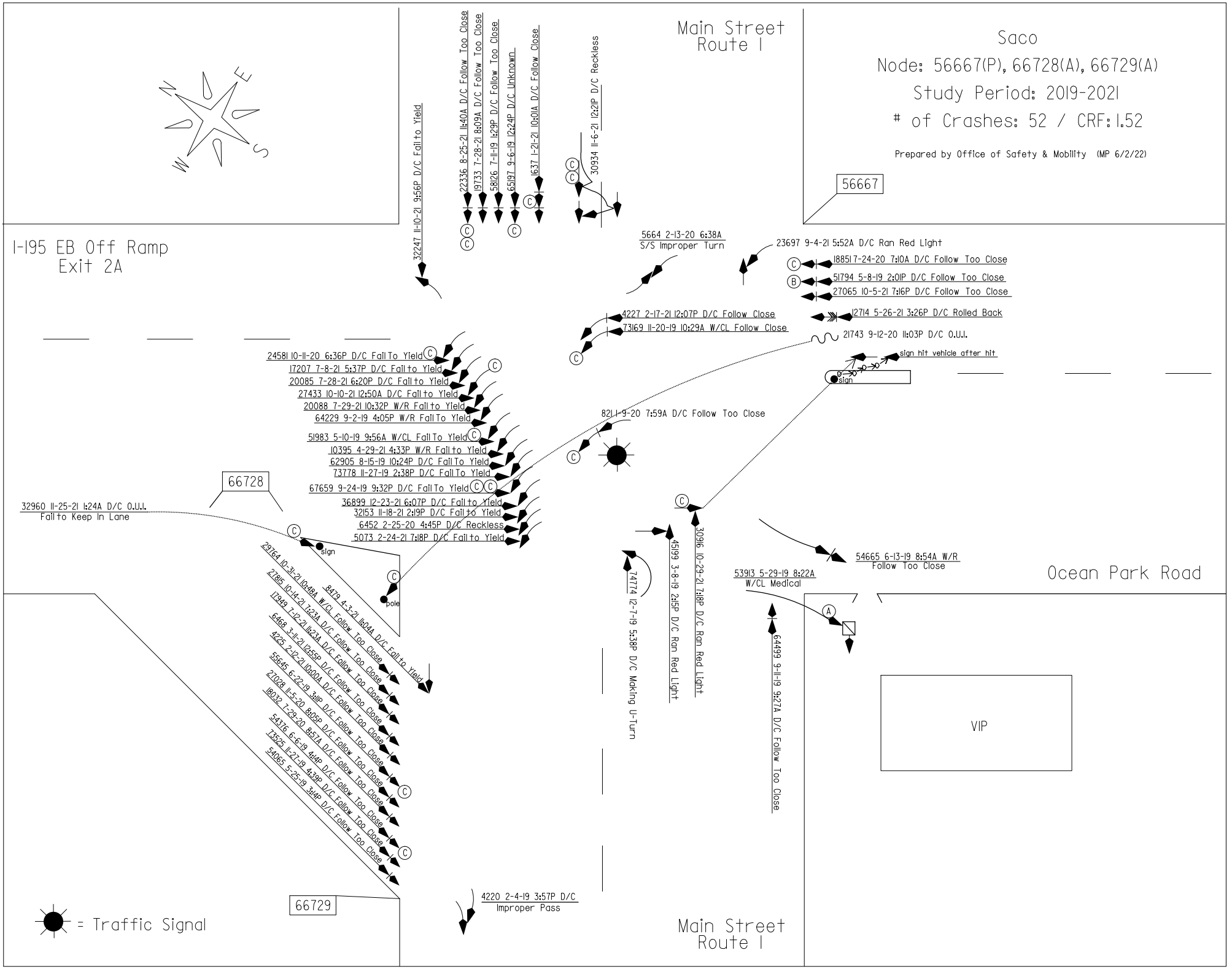
RTE # / RD #: **0001S** DATE DRAWN: **6/2/2022** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2019** STUDY TO: **12/31/2021**

CRASH RATE: **1.53** CRF: **1.52** % INJURY: **34.6** TOTAL CRASHES: **52**

LEGEND




Main Street
Route 1
Saco
Node: 56667(P), 66728(A), 66729(A)
Study Period: 2019-2021
# of Crashes: 52 / CRF: 1.52
Prepared by Office of Safety & Mobility (MP 6/2/22)
56667
I-195 EB Off Ramp
Exit 2A
32247 11-10-21 9:56P D/C Fail to Yield
22336 8-25-21 11:40A D/C Follow Too Close
19733 7-28-21 8:09A D/C Follow Too Close
58126 7-11-19 1:29P D/C Follow Too Close
65197 9-6-19 12:24P D/C Unknown
1637 1-21-21 10:01A D/C Follow Close
30934 11-6-21 12:21P D/C Reckless
5664 2-13-20 6:38A
S/S Improper Turn
23697 9-4-21 5:52A D/C Ran Red Light
18851 7-24-20 7:10A D/C Follow Too Close
51794 5-8-19 2:01P D/C Follow Too Close
27065 10-5-21 7:16P D/C Follow Too Close
12714 5-26-21 3:26P D/C Rolled Back
4227 2-17-21 12:07P D/C Follow Close
73169 11-20-19 10:29A W/CL Follow Close
21743 9-12-20 11:03P D/C O.U.I.
sign hit vehicle after hit
sign
24581 10-11-20 6:36P D/C Fail To Yield
17207 7-8-21 5:37P D/C Fail to Yield
20085 7-28-21 6:20P D/C Fail to Yield
27433 10-10-21 12:50A D/C Fail to Yield
20088 7-29-21 10:32P W/R Fail to Yield
64229 9-2-19 4:05P W/R Fail To Yield
51983 5-10-19 9:56A W/CL Fail To Yield
10395 4-29-21 4:33P W/R Fail to Yield
62905 8-15-19 10:24P D/C Fail To Yield
73778 11-27-19 2:38P D/C Fail To Yield
67659 9-24-19 9:32P D/C Fail To Yield
36899 12-23-21 6:07P D/C Fail to Yield
32153 11-18-21 2:19P D/C Fail to Yield
6452 2-25-20 4:45P D/C Reckless
5073 2-24-21 7:18P D/C Fail to Yield
8211 9-20 7:59A D/C Follow Too Close
66728
32960 11-25-21 1:24A D/C O.U.I.
Fail to Keep In Lane
sign
pole
8479 4-3-21 1:04A D/C Fail to Yield
29764 10-31-21 10:48A W/CL Follow Too Close
27815 10-14-21 7:23A D/C Follow Too Close
17949 7-12-21 11:23A D/C Follow Too Close
6468 3-11-21 12:55P D/C Follow Too Close
4225 2-12-21 10:00A D/C Follow Too Close
55645 6-22-19 3:11P D/C Follow Too Close
27028 11-5-20 8:05P D/C Follow Too Close
18032 7-29-20 8:57A D/C Follow Too Close
54376 6-6-19 4:14P D/C Follow Too Close
13525 11-27-19 4:39P D/C Follow Too Close
54065 5-25-19 3:14P D/C Follow Too Close
66729
= Traffic Signal
4220 2-4-19 3:57P D/C
Improper Pass
74774 12-7-19 5:38P D/C Making U-Turn
45199 3-8-19 2:15P D/C Ran Red Light
30996 10-29-21 7:18P D/C Ran Red Light
54665 6-13-19 8:54A W/R
Follow Too Close
53913 5-29-19 8:22A
W/CL Medical
64499 9-11-19 9:27A D/C Follow Too Close
Ocean Park Road
VIP
Main Street
Route 1

H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **YORK** TOWN: **SACO**

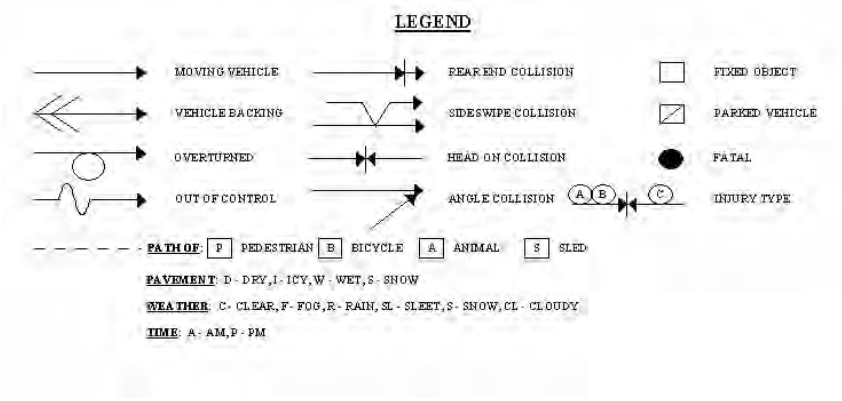
LOW NODE: **57538** HIGH NODE: **0000** REGION: **1** U/R: **URBAN**

DESCRIPTION: **Int of Main St and 195 EB Exit 2B off ramp**

RTE # / RD #: **0001X** DATE DRAWN: **7/25/2022** DRAWN BY: **BOB K**

STUDY FROM: **1/1/2019** STUDY TO: **12/31/2021**

CRASH RATE: **1.18** CRF: **4.36** % INJURY: **42.1** TOTAL CRASHES: **19**



Prepared by Office of Safety & Mobility

RFK3 7-25-22

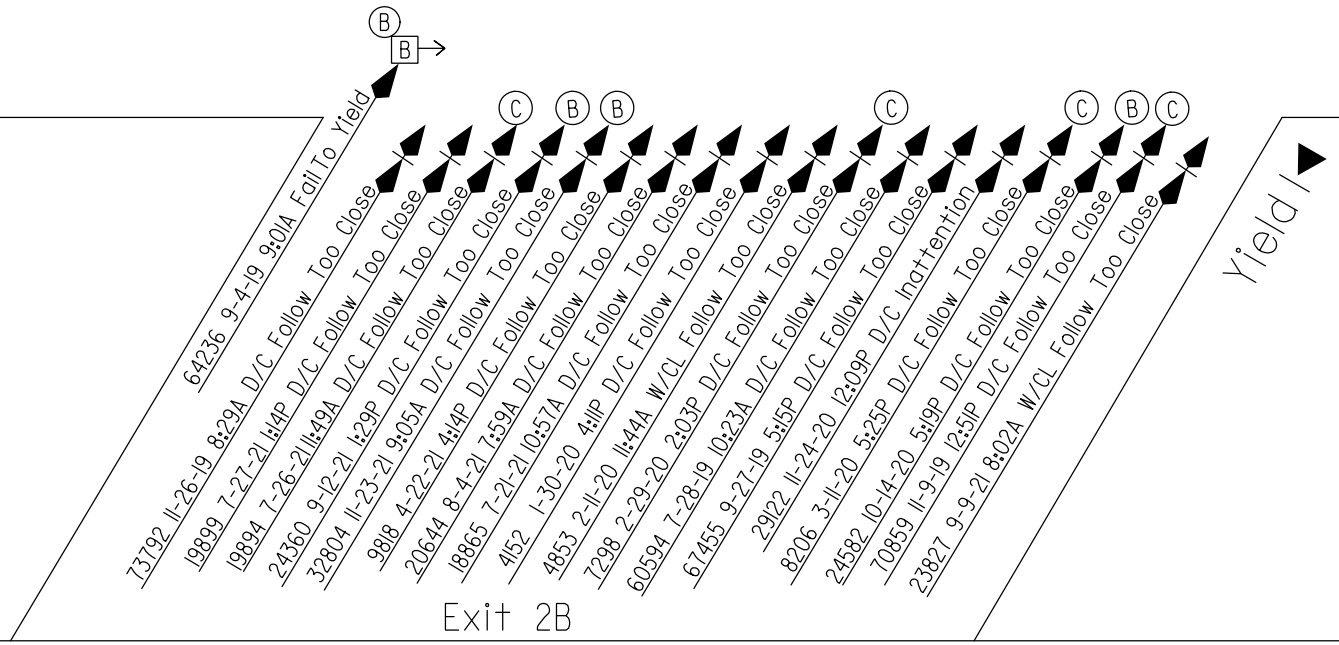
Saco

Node: 57538

Study Period: 2019-2021

of Crashes: 19 / CRF: 4.36

Rte. 1/Main St.



Appendix E

Evaluation Matrix

Old Orchard Beach / Saco, Ocean Park Road Study
WIN 26660.00
EVALUATION MATRIX

	Option 1	Option 2	Option 3	*No Build*
CRITERIA	**Roundabout at end of I-195**	**Signal at end of I-195**	**Unsignalized at end of I-195**	*Do Nothing*
Traffic Operations (LOS) (I-195/Smithwheel/Halfway)	**LOS A/A/C**	**LOS C/A/C**	**LOS A/A/C**	*LOS A/A/F*
Improves Accessibility (all Modes)	**Yes**	**Yes**	**Yes**	*No*
Addresses High Crash Locations (HCL)	**Yes**	**Yes**	**Yes**	*No*
Improves Safety (vehicles)	**Safest**	**Less than Option 1**	**Less than Option 2**	*No*
Improves Safety (pedestrians, bicycles)	**Less than Option 2**	**Safest**	**Less than Option 1**	*No*
Addresses Speed Concerns (from I-195)	**Best**	**Less than Option 1**	**No**	*No*
Improves Confusing Geometry (Halfway)	**Yes**	**Yes**	**Yes**	*No*
Improves Smithwheel Road Access	**Yes**	**Yes**	**Yes**	*No*
Improves Weave (I-195 to Smithwheel)	**Yes**	**Yes**	**Better than No Build**	*No*
Avoids Confusing Geometry (End of I-195)	**Multilane Roundabout**	**Best**	**Similar to No Build**	*No*
Property Impacts	**All Options Same**	**All Options Same**	**All Options Same**	*None*
Gateway Opportunities	**Yes**	**Less than Option 1**	**Less than Option 2**	*No*
Total Project Costs (Construction, PE, CE, ROW)	**$15.9M**	**$16.0M**	**$15.4M**	*None*
Meets Purpose & Need	**Yes**	**Yes**	**No**	*No*

RECOMMENDATION: Option 1, Roundabout at the end of Interstate 195

Appendix F

Renderings

INTERSTATE 195 AND OCEAN PARK RD | CURRENT CONDITION

ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

INTERSTATE 195 AND OCEAN PARK RD | PROPOSED ROUNDABOUT

ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

INTERSTATE 195 AND OCEAN PARK RD | PROPOSED INTERSECTION

ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

SMITHWHEEL RD AND OCEAN PARK RD | CURRENT CONDITION

ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

SMITHWHEEL RD AND OCEAN PARK RD | PROPOSED INTERSECTION

ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

OCEAN PARK RD, SACO AVE, AND TEMPLE AVE | CURRENT CONDITION

ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

OCEAN PARK RD, SACO AVE, AND TEMPLE AVE | PROPOSED INTERSECTION

ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

Appendix G

Public Outreach

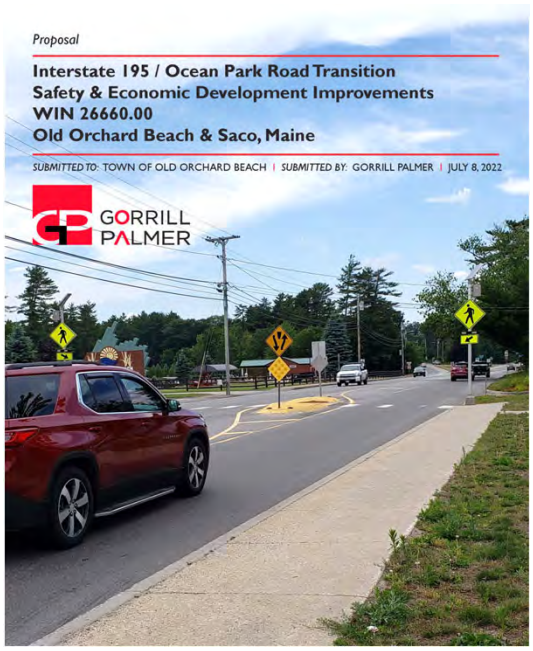
Old Orchard Beach & Saco

Safety & Economic Development Improvements Study

Public Information Meeting

August 17, 2022

GORRILL PALMER



1

Study Team

(Planning Partnership Initiative)

Consultant

- Gorrill Palmer (Don Ettinger)
- North Star Planning
- James Tasse Consulting

Municipality

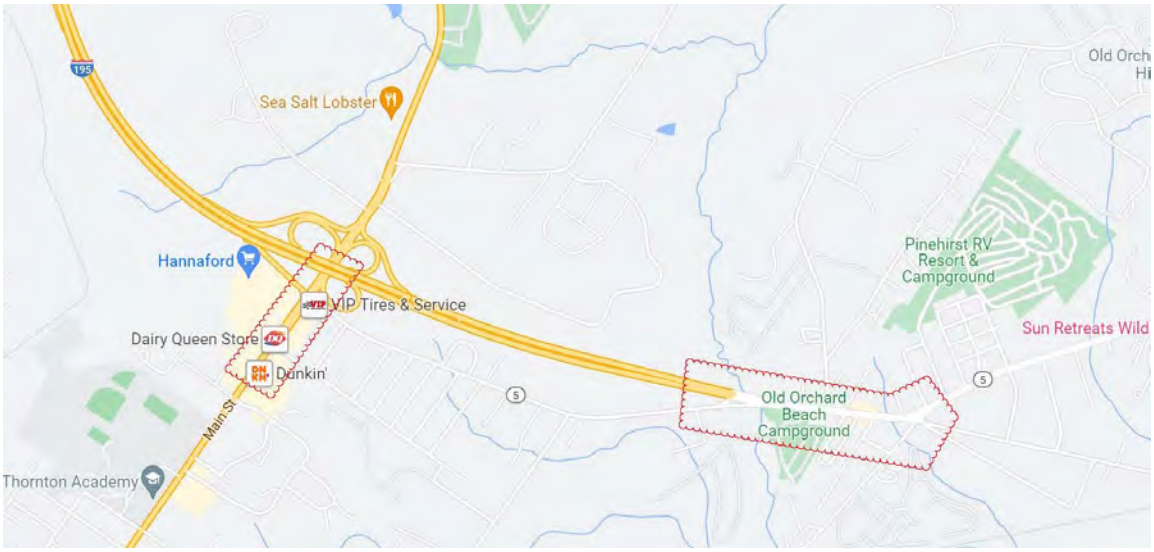
- Old Orchard Beach (Mike Foster, Diana Asanza)
- Saco (Patrick Fox, Joseph Laverriere)

MaineDOT

- Marty Rooney

GORRILL PALMER

2



GORRILL PALMER

Location Maps

Ocean Park Road (OOB) & Main Street (Saco)

3

Study Scope

(Transportation Planning Study)

- Traffic operations
- Corridor safety (HCL)
- Reduce speeds
- Improve confusing geometry
- Review access management
- Pedestrian and bicycle accommodations
- Economic development

GORRILL PALMER

4

Prior Studies

2005 Intersection Study

2019 Traffic Calming Assessment

2021 Intersection Study (PPI)

GORRILL PALMER

5

Comments from Prior Study

- Safety & operational concerns with Ocean Park Road
- Need for traffic signal at Smithwheel Road intersection
- Traffic calming and speed reduction needs
- Pedestrian and bicycle safety concerns

GORRILL PALMER

6

Focus Areas

- I-195 transition
- Roundabout
- Traffic signal
- Traffic calming
- Pedestrian and bicycles

GORRILL PALMER

7

Focus Areas

- Weave section
- Driveways
- Side roads
- Traffic calming
- Pedestrian and bicycles

GORRILL PALMER

8

Focus Areas

- Smithwheel intersection
- Traffic Signal
- Roundabout
- Restricted access
- Driveways
- Side roads
- Pedestrian and bicycles

GORRILL PALMER

9

Focus Areas

- 7-Eleven intersection
- Ocean Park Road, Saco Ave, Temple Ave, Old Orchard Road intersection
- Consider how recommendations of this project may affect the recommendations from the prior study.

GORRILL PALMER

10

Focus Areas

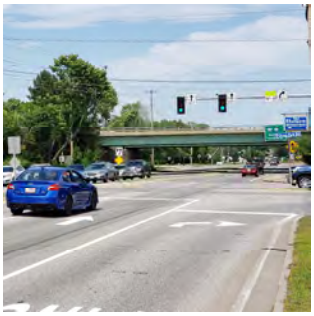
- Main Street in Saco
- Ocean Park Road, Main Street, I-195 offramp
- Traffic operations
- Pedestrians and bicycles

GORRILL PALMER

11

Schedule

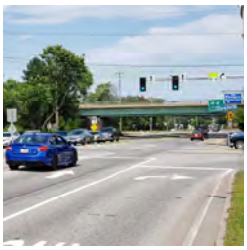
- Study Startup – Aug 2022
- Existing Conditions Memo – Oct 2022
- Public Mtg 1 – Nov 2022
- Concepts, Analysis, Findings, Team Mtgs
- Public Mtg 2 – May 2023
- Draft/Final Reports – Jun/Jul 2023



GORRILL PALMER

12

Public Input



GORRILL PALMER

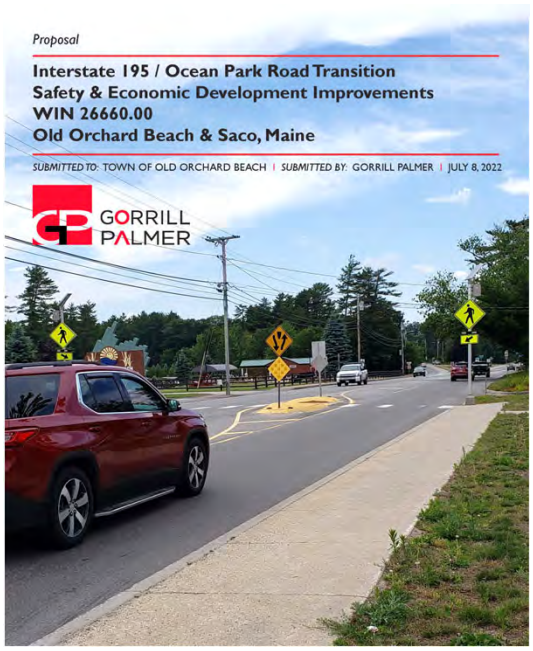
Old Orchard Beach & Saco

Safety & Economic Development Improvements Study

Public Information Meeting #2

June 17, 2024

GORRILL PALMER



1

Study Team

(Planning Partnership Initiative)

Consultant

- Gorrill Palmer (Don Ettinger)
- North Star Planning
- James Tasse Consulting
- Aceto Landscape Architects

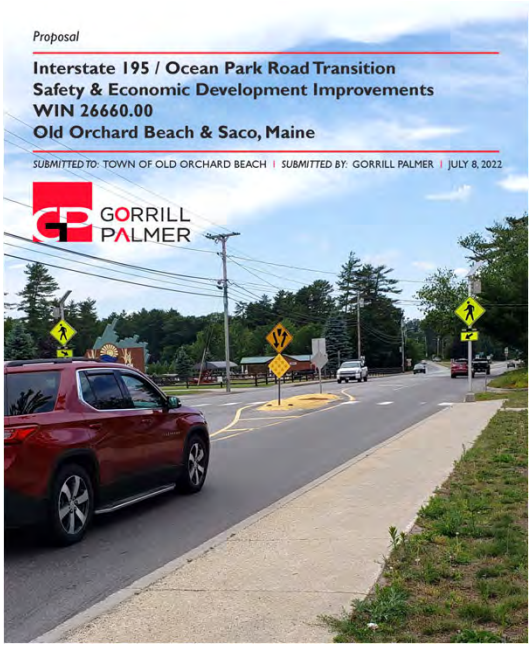
Municipality

- Old Orchard Beach (Mike Foster, Diana Asanza)
- Saco (Patrick Fox)

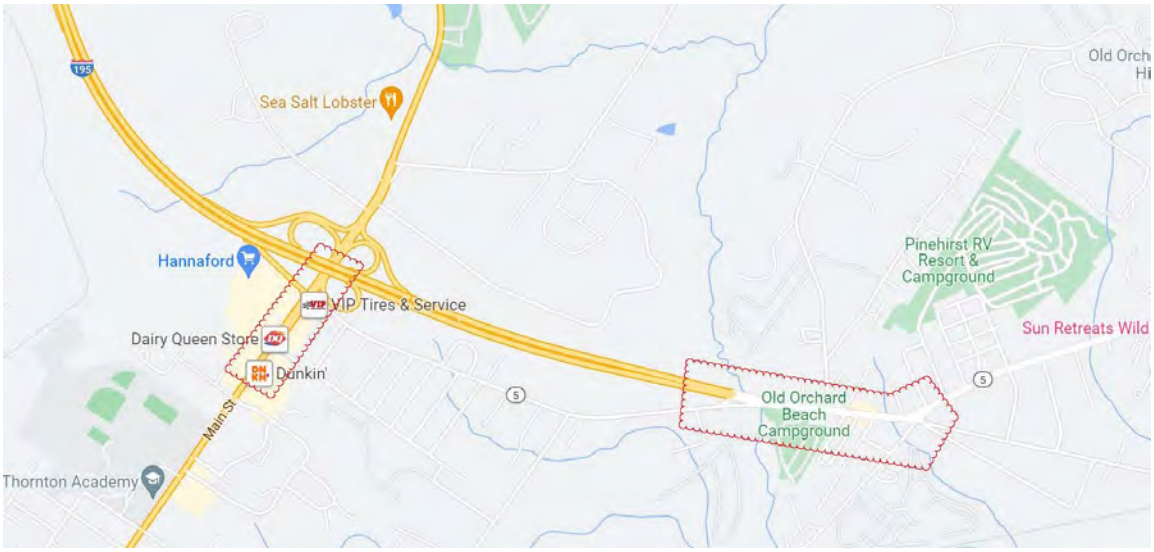
MaineDOT

- Marty Rooney

GORRILL PALMER



2



GORRILL PALMER

Location Maps

Ocean Park Road (OOB) & Main Street (Saco)

3

Prior Studies

2005 Intersection Study

2019 Traffic Calming Assessment

2021 Intersection Study (PPI)

GORRILL PALMER

4

Comments from Prior Study

- Safety & operational concerns with Ocean Park Road
- Need for traffic signal at Smithwheel Road intersection
- Traffic calming and speed reduction needs
- Pedestrian and bicycle safety concerns

GORRILL PALMER

5

Purpose/Need Statement (Ocean Park Road)

The purpose of this study along the Ocean Park Road corridor from where it transitions from a controlled access to an uncontrolled access highway to the Halfway Intersection in Old Orchard Beach is to identify a range of implementable alternatives to improve safety while maintaining reasonable mobility and accessibility for all modes of transportation both now and into the future.

The needs of this study include improving safety at high crash locations within the corridor, speed level compliance, maintaining acceptable levels of service entering the Ocean Park Road corridor from I-195, improving the geometry and weaving actions and providing for improved access management within the corridor while improving accessibility for all transportation modes including but not limited to active transportation and vehicles accessing Ocean Park Road from intersecting local roads.

GORRILL PALMER

6

Purpose/Need Statement (Main Street, Saco)

The purpose of this study at the Main Street/Route 5 Intersection in Saco is to identify a range of implementable alternatives to improve safety and operations while maintaining reasonable mobility and accessibility for all modes of transportation both now and into the future.

The needs of this study include improving safety at two high crash locations at the I-195 interchange with Main Street, improving operations at the Main Street/Route 5 intersection, maintaining acceptable levels of service while improving accessibility for all transportation modes.

GORRILL PALMER

7

Study Scope

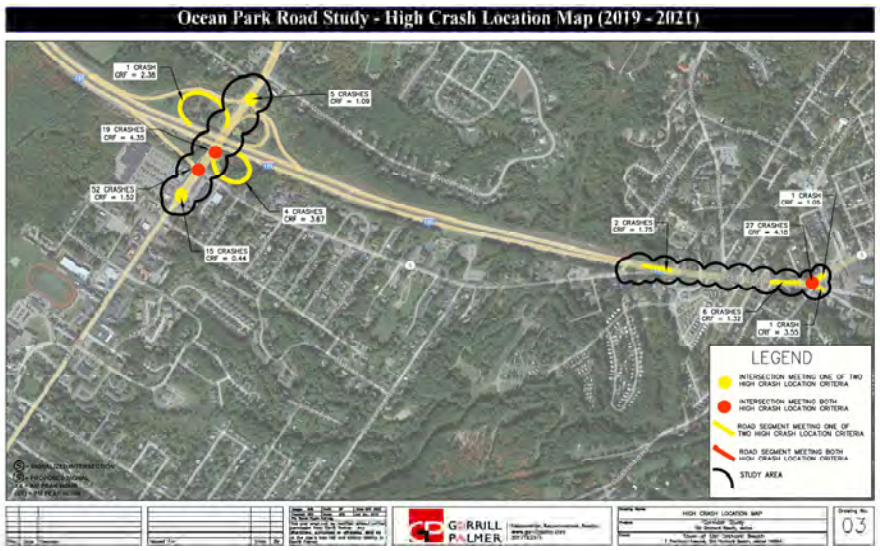
(Transportation Planning Study)

- Traffic operations
- Corridor safety (HCL)
- Reduce speeds
- Improve confusing geometry
- Review access management
- Pedestrian and bicycle accommodations
- Gateway opportunity

GORRILL PALMER

8

High Crash Locations



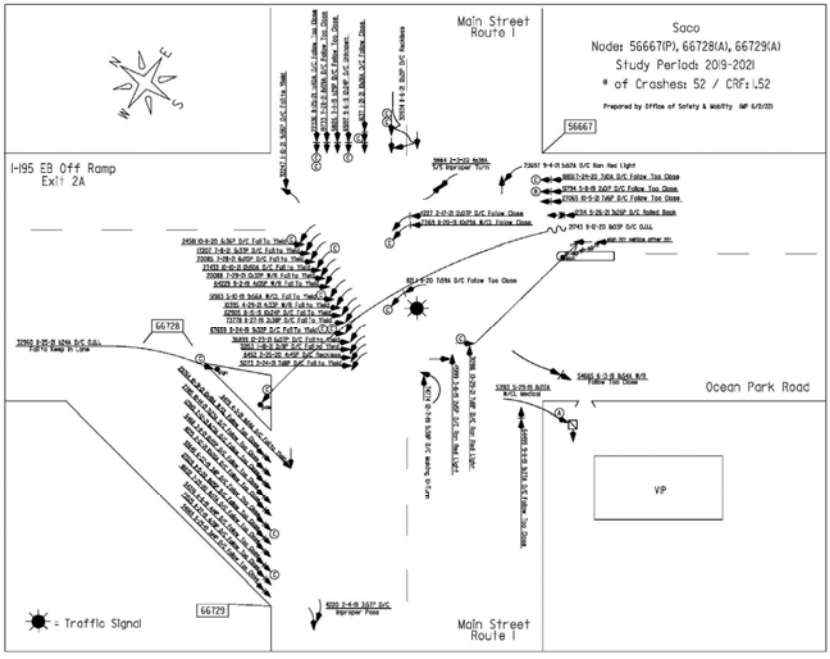
GORRILL PALMER

9

High Crash Locations

Saco
Exit 2A Offramp at Main Street

- 52 Crashes
- CRF – 1.52



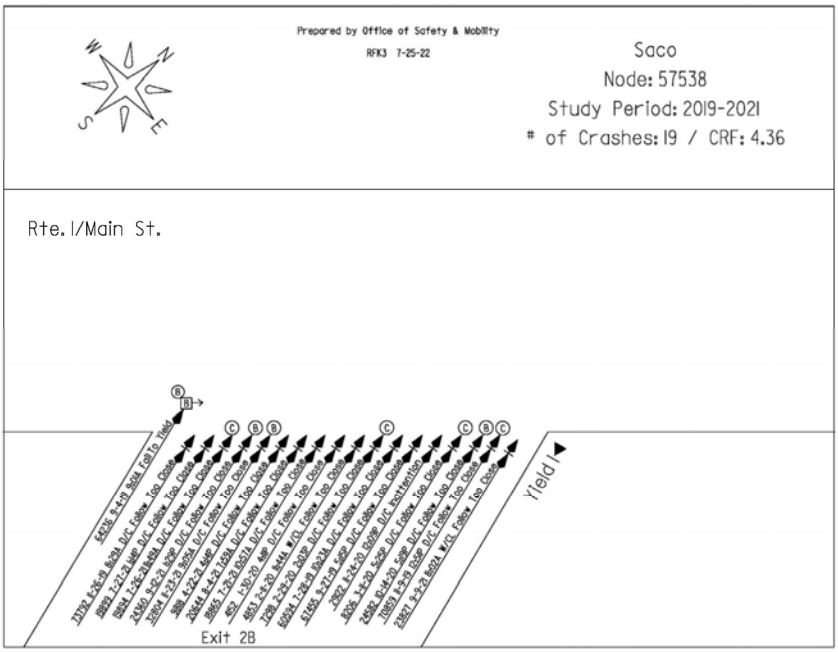
GORRILL PALMER

10

High Crash Locations

Saco
Exit 2B Offramp at Main Street

- 19 Crashes
- CRF – 4.36



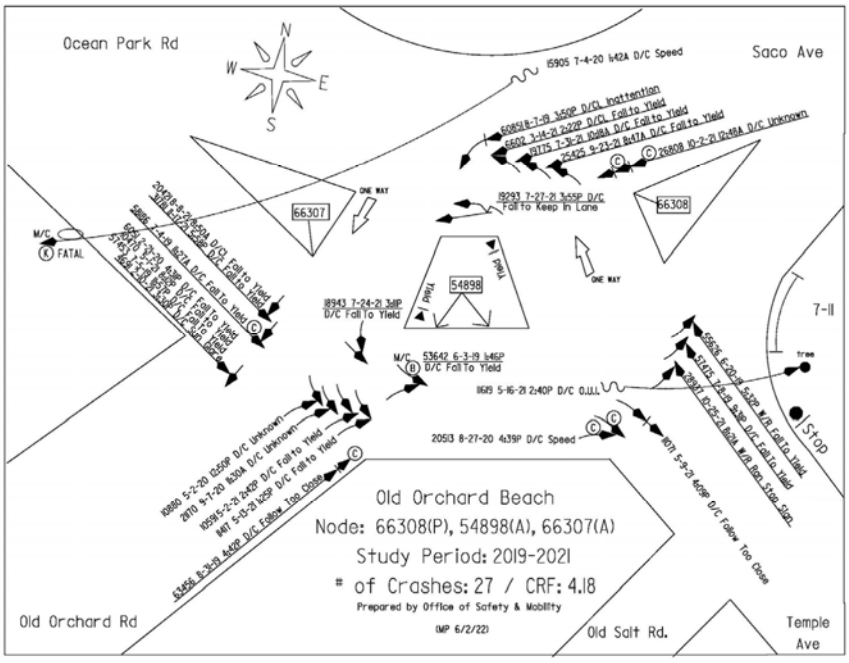
GORRILL PALMER

11

High Crash Locations

Old Orchard Beach
Halfway Intersection

- 27 Crashes
- CRF – 4.18



GORRILL PALMER

12

Focus Areas

- Main Street in Saco
- I-195 offramps
- Traffic operations
- Safety Improvements

GORRILL PALMER

13

Focus Areas

- I-195 transition
- Traffic calming
- Restricted Movements
- Pedestrian and bicycles

GORRILL PALMER

14

Focus Areas

- Weave section
- Driveways
- Side roads
- Traffic calming
- Pedestrian and bicycles

GORRILL PALMER

15

Focus Areas

- Smithwheel intersection
- Traffic operations
- Campground entrance
- Side roads
- Pedestrian and bicycles

GORRILL PALMER

16

Focus Areas

- Ocean Park Road, Saco, Temple, Old Orchard Road intersection
- Traffic operations
- Safety improvements
- Prior study recommendations updates

GORRILL PALMER

17

Schedule

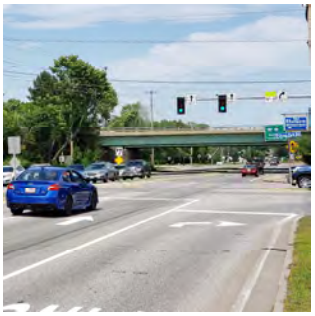
- Public Mtg – Aug 2022
- Kickoff Mtg – Sep 2022
- Site Visit – Oct 2022
- Existing Conditions – Dec 2022
- Traffic Memo (existing & no-build) - Mar 2023
- Initial Concepts – Apr 2023
- Traffic Analysis & Footprint Sizes – May 2023

GORRILL PALMER

18

Schedule

- Rev Traffic analysis – Jul 2023
- Signal Warrants – Oct 2023
- DOT Mtg – Nov 2023
- Concepts – Apr 2024
- Traffic Memo – May 2024
- Public Mtg – Jun 2024

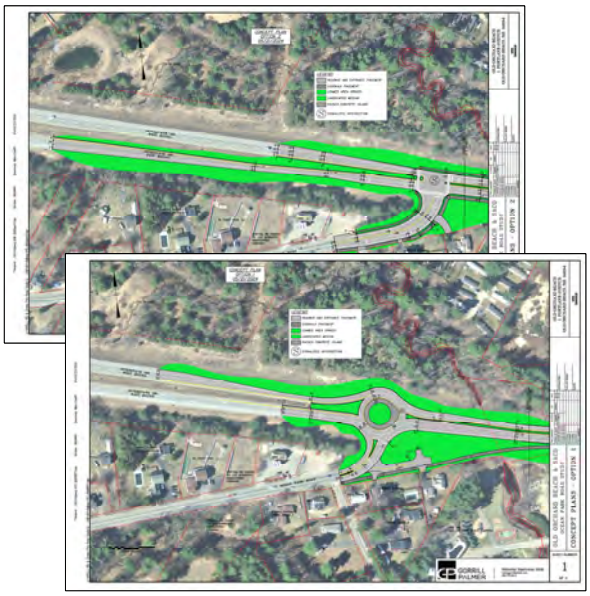


GORRILL PALMER

19

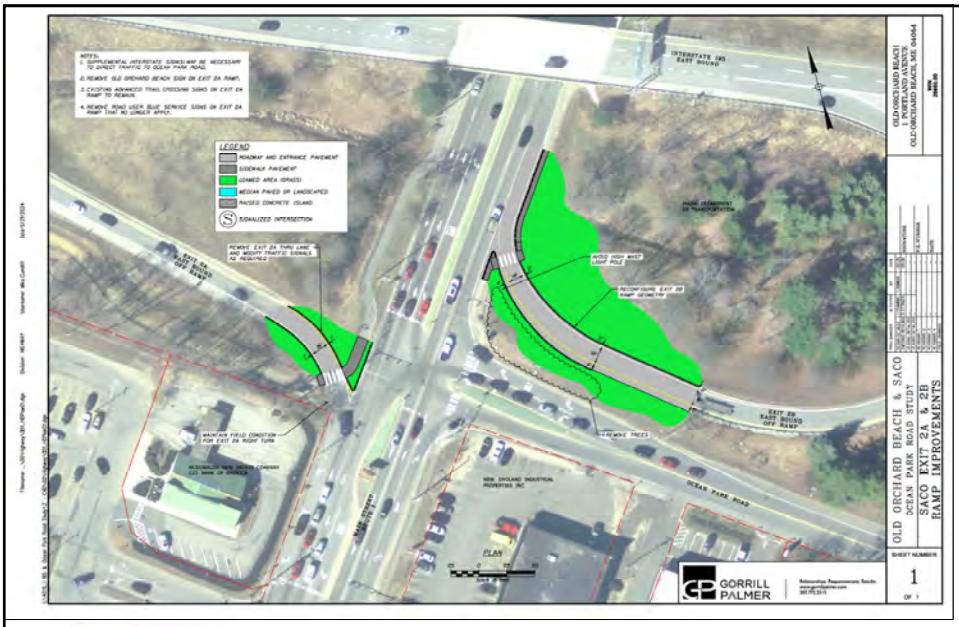
Concepts & Visioning

- Safety Improvements
- Intersection Improvements
- Confusing Geometry Improvements
- Pedestrian / Bike Accommodations
- Traffic Calming
- Access Management
- Pedestrian Connectivity
- Gateway Opportunity



GORRILL PALMER

20

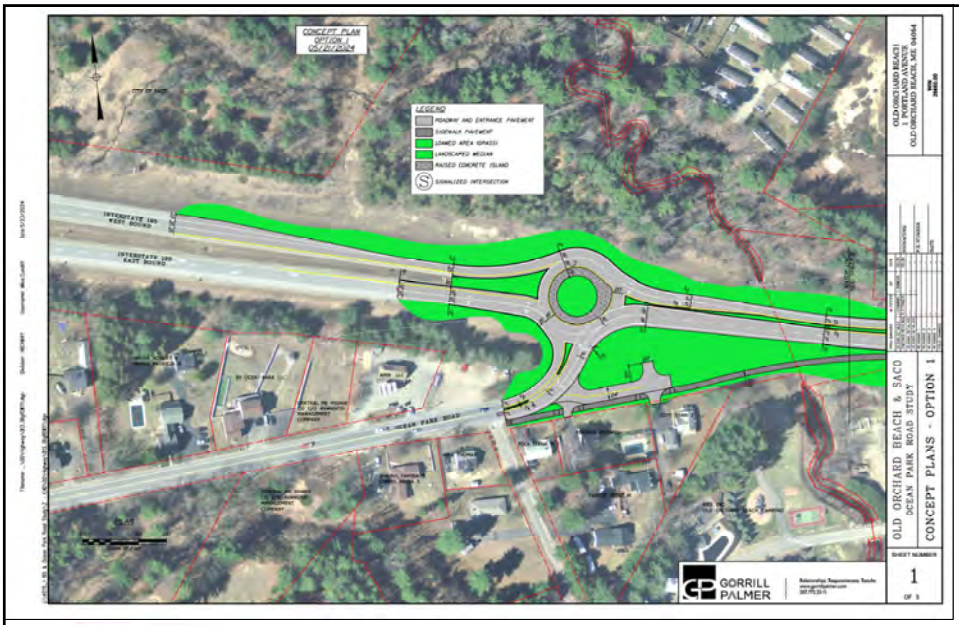


Concepts

- Safety Improvements
- Intersection Improvements
- Improve Confusing Geometry
- Pedestrian / Bike Accommodations
- Traffic Calming
- Access Management
- Pedestrian Connectivity
- Gateway Opportunity

GORRILL PALMER

21



Concepts

- Safety Improvements
- Intersection Improvements
- Improve Confusing Geometry
- Pedestrian / Bike Accommodations
- Traffic Calming
- Access Management
- Pedestrian Connectivity
- Gateway Opportunity

GORRILL PALMER

22

INTERSTATE 195 AND OCEAN PARK RD | CURRENT CONDITION

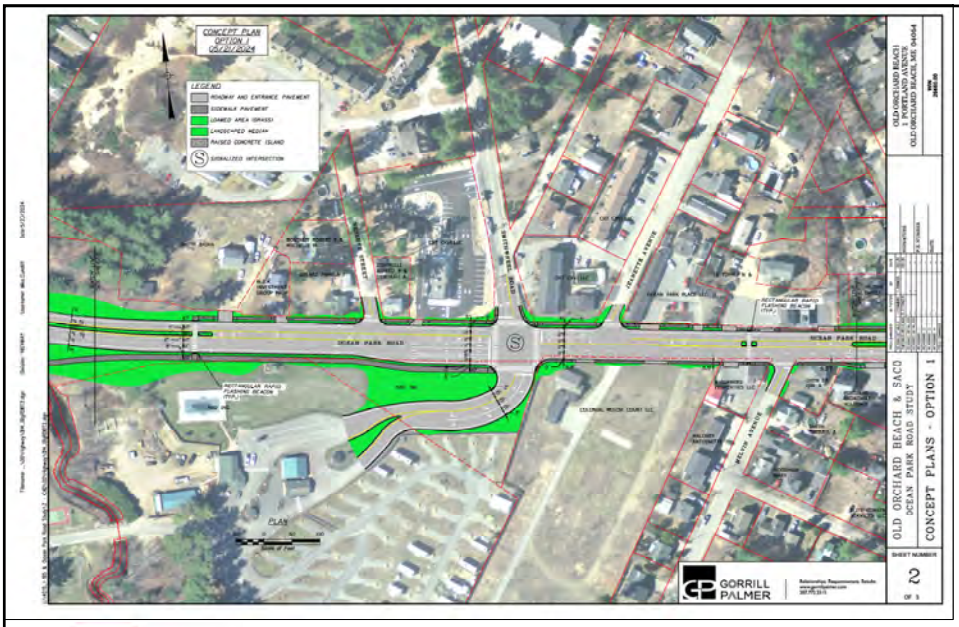
ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

23

INTERSTATE 195 AND OCEAN PARK RD | PROPOSED ROUNDABOUT

ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

24

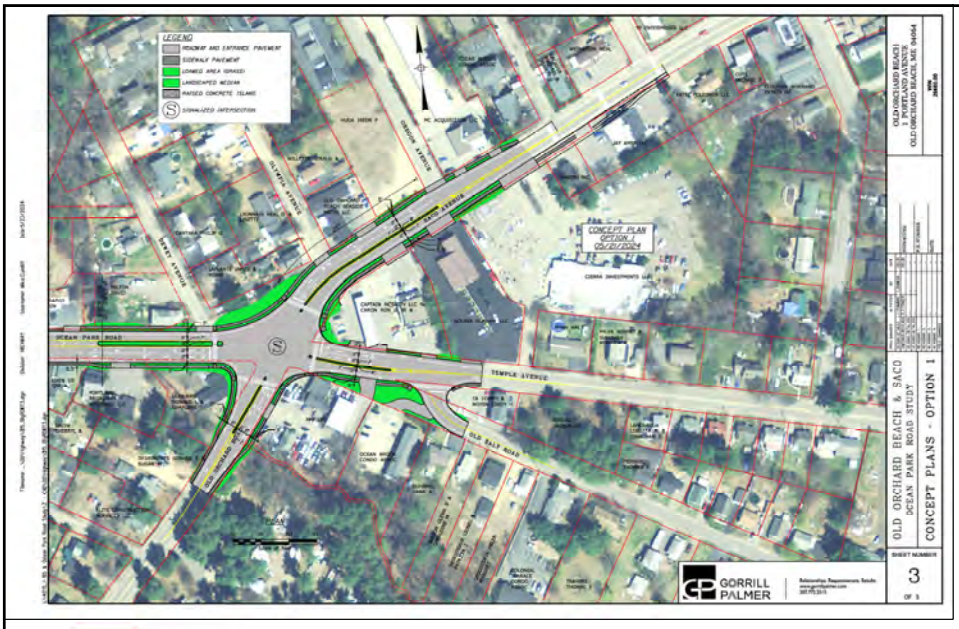


Concepts

- Safety Improvements
- Intersection Improvements
- Improve Confusing Geometry
- Pedestrian / Bike Accommodations
- Traffic Calming
- Access Management
- Pedestrian Connectivity
- Gateway Opportunity

GORRILL PALMER

25

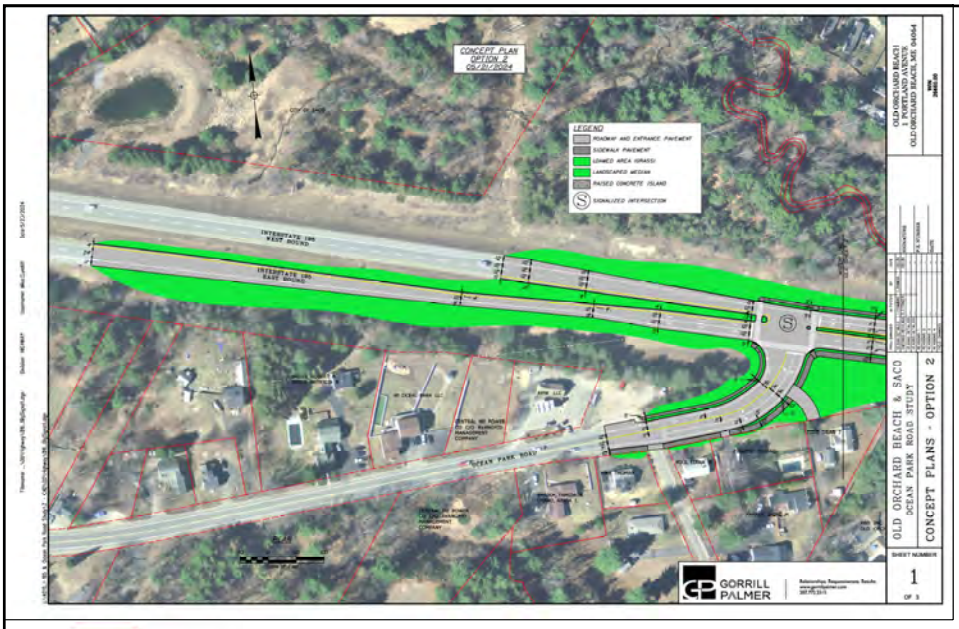


Concepts

- Safety Improvements
- Intersection Improvements
- Improve Confusing Geometry
- Pedestrian / Bike Accommodations
- Traffic Calming
- Access Management
- Pedestrian Connectivity
- Gateway Opportunity

GORRILL PALMER

26



Concepts

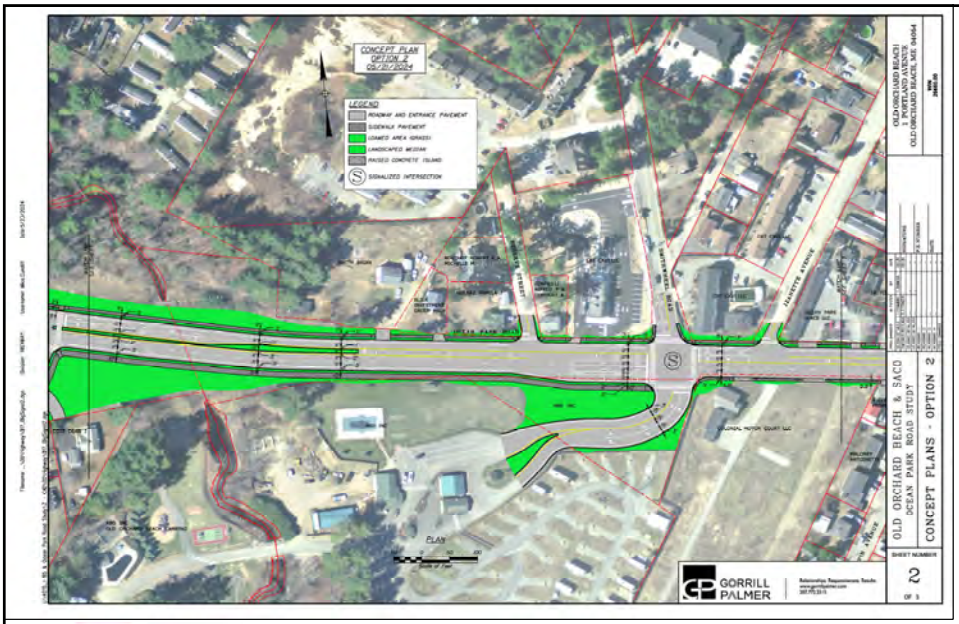
- Safety Improvements
- Intersection Improvements
- Improve Confusing Geometry
- Pedestrian / Bike Accommodations
- Traffic Calming
- Access Management
- Pedestrian Connectivity
- Gateway Opportunity

GORRILL PALMER

27

28

29



Concepts

- Safety Improvements
- Intersection Improvements
- Improve Confusing Geometry
- Pedestrian / Bike Accommodations
- Traffic Calming
- Access Management
- Pedestrian Connectivity
- Gateway Opportunity

GORRILL PALMER

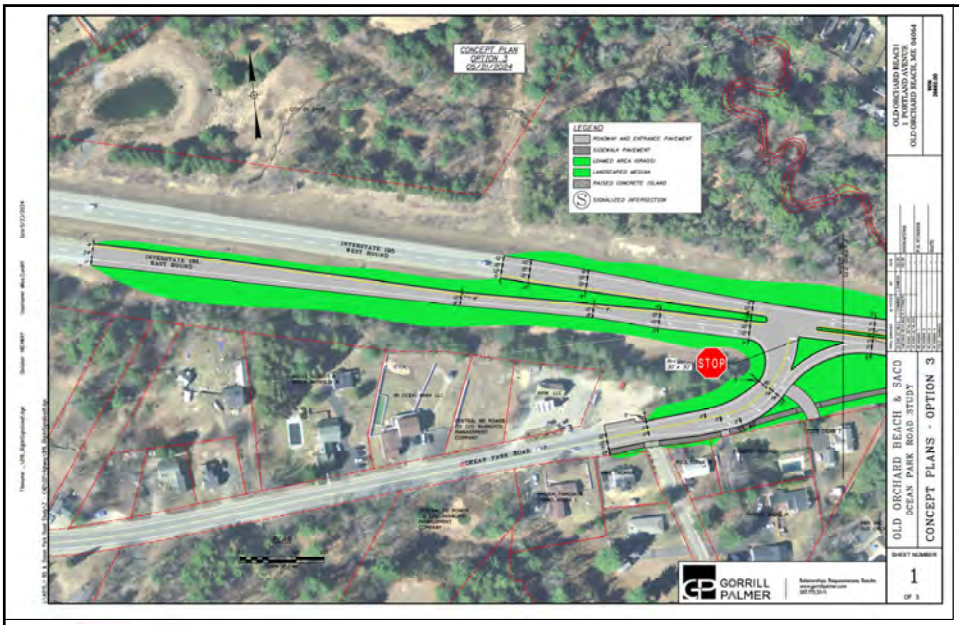
30

Concepts

- Safety Improvements
- Intersection Improvements
- Improve Confusing Geometry
- Pedestrian / Bike Accommodations
- Traffic Calming
- Access Management
- Pedestrian Connectivity
- Gateway Opportunity

GORRILL PALMER

31

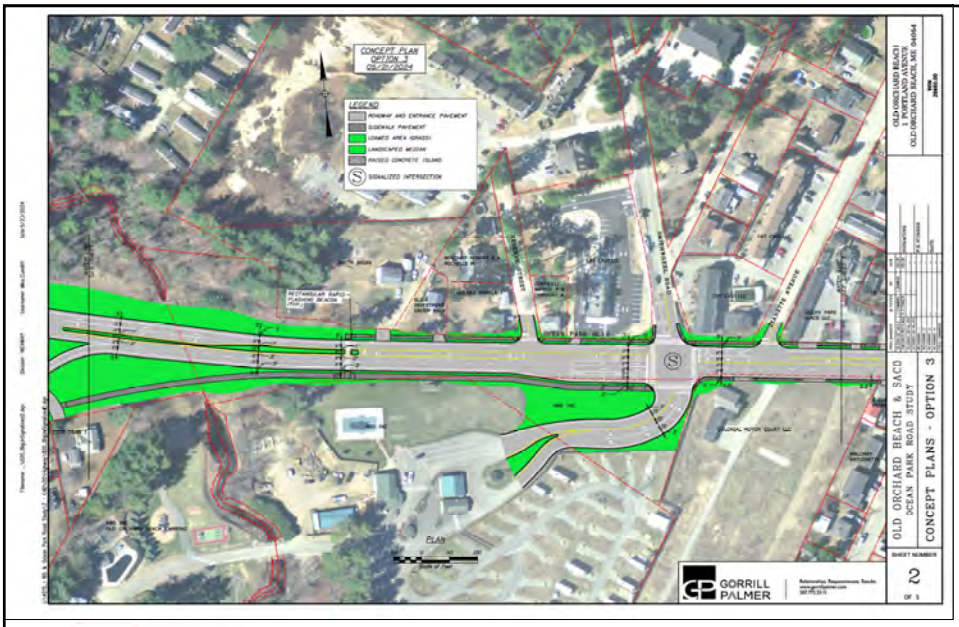


Concepts

- Safety Improvements
- Intersection Improvements
- Improve Confusing Geometry
- Pedestrian / Bike Accommodations
- Traffic Calming
- Access Management
- Pedestrian Connectivity
- Gateway Opportunity

GORRILL PALMER

32



Concepts

- Safety Improvements
- Intersection Improvements
- Improve Confusing Geometry
- Pedestrian / Bike Accommodations
- Traffic Calming
- Access Management
- Pedestrian Connectivity
- Gateway Opportunity

GORRILL PALMER

33

SMITHWHEEL RD AND OCEAN PARK RD | CURRENT CONDITION

ALA
ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

34

SMITHWHEEL RD AND OCEAN PARK RD | PROPOSED INTERSECTION

ALA
AOKI LANDSCAPE ARCHITECTURE + URBAN DESIGN

35

Concepts

- Safety Improvements
- Intersection Improvements
- Improve Confusing Geometry
- Pedestrian / Bike Accommodations
- Traffic Calming
- Access Management
- Pedestrian Connectivity
- Gateway Opportunity

GORRILL PALMER

36

OCEAN PARK RD, SACO AVE, AND TEMPLE AVE | CURRENT CONDITION

ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

37

OCEAN PARK RD, SACO AVE, AND TEMPLE AVE | PROPOSED INTERSECTION

ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN

38

Goals	Options				
	Normal Footprints			Reduced Footprints	
	1	2	3	4	5
Ped Accom. & Safety					
Provide Capacity					
Reduce Confusion & Weaving					
Smithwheel Operations					
Reduce Speeds					
Provide Left Turn Accom.					

GORRILL PALMER

39

40

OCEAN PARK ROAD
TEMPLE AVENUE
OLIVIA CONDOS
PLAN
GORRILL PALMER
OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY
DEWEY AVENUE
CONNECTION OPTIONS
SHEET NUMBER
2
OF 4

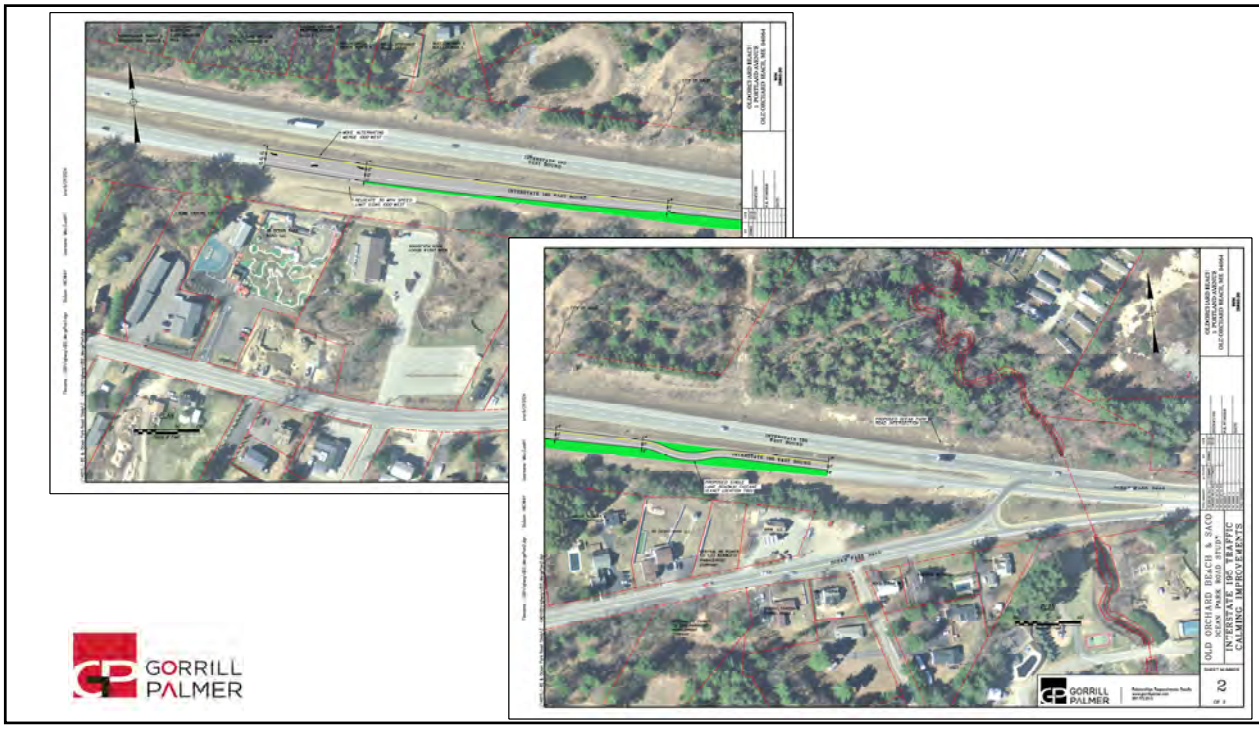
41

OCEAN PARK ROAD
TEMPLE AVENUE
OLIVIA CONDOS
PLAN
GORRILL PALMER
OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY
DEWEY AVENUE
CONNECTION OPTIONS
SHEET NUMBER
3
OF 4

42

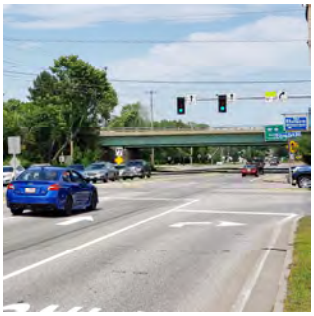
OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY
DEWEY AVENUE
CONNECTION OPTIONS
SHEET NUMBER
4
OF 4
GORRILL PALMER
OCEAN PARK ROAD
TEMPLE AVENUE
DEWEY AVENUE
OLIVIA AVENUE
JULIETTE AVENUE
OAK STREET
PLAN

43


OLD ORCHARD BEACH & SACO
OCEAN PARK ROAD STUDY
INTERSECTION
CALMING IMPROVEMENTS
GORRILL PALMER

Next Steps

- Public Comments, Edits, Revisions – Jun 2024
- Final Evaluations, Costs, ROW, Recommendations – Jul 2024
- Draft Report – Aug 2024
- Final Report – Oct 2024



GORRILL PALMER

45

Public Input

- ❑ Safety Improvements
- ❑ Intersection Improvements
- ❑ Reducing Driver Confusion
- ❑ Pedestrian / Bike Accommodations
- ❑ Traffic Calming
- ❑ Access Management
- ❑ Pedestrian Connectivity
- ❑ Gateway Opportunities
- ❑ Other Items

GORRILL PALMER

46