Plum Creek Rezoning Proposal
Infrastructure and Community Impact Analysis

Prepared by:
Eastern Maine Development Corporation
August 2006

Eastern Maine Development Corporation
Statement of Credentials

Eastern Maine Development Corporation (EMDC) serves as one of the six (6) designated development districts in the state as defined by the U.S. Department of Commerce Economic Development Administration (EDA) and the State of Maine. Under the guidelines established by EDA, EMDC is responsible for conducting the Comprehensive Economic Development Strategy for the region.

The Corporation is divided into three distinct divisions:

-Administrative Services – Responsible for providing administrative support to all programs at EMDC.

- Finance/Administration
- Information Services
- GIS/Data Center

-Community Services – Responsible for working with communities within the district to identify specific planning and development needs.

- Community and Economic Development
- Community Planning, including two regional planning commissions
- Bangor Area Comprehensive Transportation System (BACTS) and Transportation Services
- Greater Bangor Convention and Visitors Bureau (CVB)

-Business Services – Responsible for working with business interests to link them with market opportunities.

- Maine Small Business Development Center (Maine SBDC)
- Maine Procurement Technical Assistance Center (Maine PTAC)
- Business Development
- Lending

The Corporation has nearly four (4) decades of experience working with communities and businesses throughout the development district and the State of Maine. Regional work has been

conducted within the Moosehead Lake Region which makes the organization intimately familiar with the area.

Such studies conducted include:

- "Town of Greenville: Downtown Revitalization Action Plan"
- "Moosehead Lake Region Economic Profile"
- "Katahdin Region Economic Base Analysis"

Additional studies of regional significance include:

- "Coastal Washington County Housing Assessment"
- "Midcoast Housing Assessment"
- "Eastern Maine Economic Development Strategy"
- "Penobscot River Asset Inventory"
- "Economic Impact Study: Hancock County-Bar Harbor Airport"

EMDC has also drafted land use ordinances for the following communities:

- Corinna
- Newport
- Milford
- East Millinocket
- Greenbush

The following members of the staff at Eastern Maine Development Corporation participated in the Community Impact and Infrastructure Analysis:

Michael Bush - Director, Community Development.
Study Responsibility: Housing, Data

- Mike is a 23 year veteran of EMDC. His work focuses on community economic development issues, working with towns and community groups to facilitate change, locate resources, and implement projects. He has helped form numerous development groups, and assisted community groups to develop more than $20 million in housing,

industrial parks, downtown, and other public facility improvements. Research studies completed have included affordable housing strategies, public facility feasibility studies, economic development strategies, downtown revitalization, and market feasibility. He current serves as Chair of PenQuis CAP, and is on the board of directors of the Four Directions Development Corporation and Maine Rural Partners. He is a graduate of the University of Massachusetts and completed graduate work at the University of Maine.

Dean Bennett - Director, Planning

Study Responsibility: Land Use

- Dean received his Bachelor of Science Degree in Business Administration from the University of Maine at Machias in 1979. He has served in the capacity of Municipal Code Enforcement Officer and Town Planner in a number of communities throughout the EMDC region. Arriving at EMDC in 1990, Dean has served regional communities in the positions of Project Planner, Growth Management Planner and Senior Planner prior to being promoted to EMDC's Director of Planning in 1994. Over the past 22 years, Dean has worked closely with municipal officials, planning boards, boards of appeal and code enforcement officers in helping them deal with the day to day challenges and problems facing rural and urban communities.

Don Cooper - Transportation Planner, Bangor Area Comprehensive Transportation System

Study Responsibility: Transportation

- Don joined EMDC in 1996, to provide the Bangor Area Comprehensive Transportation System (BACTS) with transportation planning support, particularly in the fields of transit, alternative modes, public involvement, and travel demand modeling. In addition to his duties for BACTS, he also supplies transportation planning assistance outside the Greater Bangor Urbanized Area. Don holds a B.SC. in Civil Engineering from London University in the United Kingdom and a M.Eng. in Traffic Engineering and Transportation Planning from Sheffield University. He is also a Chartered Engineer, Member of the Institution of Civil Engineers in the UK.

Jonathan Daniels - President/CEO

Study Responsibility: Project Manager

- Jonathan serves as the President and CEO of Eastern Maine Development Corporation. In this role he oversees the community and economic development functions of the agency. He has over a decade of experience in domestic and international economic and transportation development. Jonathan has served as the Port Director of the Port of Eastport, Maine, and as the Managing Director of the Greater Baton Rouge Port Commission and the Port of Greater Baton Rouge, Louisiana. He is a 1991 graduate of The Citadel in Charleston, South Carolina with a degree in International Politics and Military Affairs and has completed graduate work toward a Master of Science degree from Maine Maritime Academy.

Donna Fichtner - Director, Bangor Convention and Visitors Bureau

Study Responsibility: Tourism

- Donna is responsible for the overall operations and functioning of the CVB that markets Greater Bangor and The Maine Highlands to attract meetings, conventions & visitors. In addition to overseeing regional marketing efforts, she personally handles many tourism development projects. A former educator, tourism business owner, and chamber of commerce executive, Donna has managed the CVB since 1995. She has developed the first hospitality training programs in Maine on both the high school and college levels. Donna has been involved in tourism since graduation from Gordon College in 1967. She later gained her M.A. in English from the University of Maine at Orono while working in management in the ski resort business.

Eric Galant - Planner

Study Responsibility: Land Use

Eric is the Planning Director of the Mid-Coast Regional Planning Commission (MCRPC). He works with coastal and rural communities on land use and transportation planning in Knox and Waldo Counties. Eric was principal planner for the Washington County Council of Governments in Machias, and before that he worked for the Bureau of Planning of the Maine Department of Transportation. He earned a B.S. degree in Urban and Regional

Planning from Cornell University and a M.Sc. in Urban and Regional Planning from the London School of Economics. Eric is a member of the Maine Association of Planners and other similar organizations.

John Holden - Director, Business Development

Study Responsibility: Tourism

- John graduated from Bowling Green State University and after working in the environmental consulting arena moved to Maine in 1989. A Master's graduate from Resource Economics and Policy, John paired his environmental and land use planning with community and regional economics. John moved back to Ohio and took a position in his home town of Columbus as the Managing Director for the Ohio Business and Expansion Program at Ohio State University Extension. Given the opportunity to return to Maine, John took a position as an Economic Development Specialist at EMDC in 1994. Since that time, John has worked on a number of local and regional programs and projects including the formation of the Piscataquis County Economic Development Council, The Maine Highlands Corporation and Guild, and the National Folk Festival in Bangor.

Rob Kenerson - Director, Bangor Area Comprehensive Transportation System

Study Responsibility: Transportation

- Rob became the BACTS Director at EMDC in 1995. He has over 25 years of transportation engineering and planning experience with both public agencies and private consulting firms in Maine. Rob has conducted numerous traffic studies and designed transportation projects throughout all the New England states and Florida. Rob received his B.S. degree in Civil Engineering from the University of Maine and has been a registered Professional Engineer in the State of Maine since 1989. He is an active member of the Institute of Transportation Engineers at both the state and national level.

Josh MacDonald – Planner

Study Responsibility: Education, Emergency Services, Health Care

- Josh is a community planner with Eastern Maine Development Corporation where his primary responsibilities are to provide comprehensive and land use planning services to the Penobscot Valley Council of Governments and its member communities. He has worked with the Maine Emergency Management Agency (MEMA) and the Federal Emergency Management Agency (FEMA), combining the efforts of 52 Maine communities in planning for natural hazards and emergency preparedness throughout eastern and central Maine. Josh is a 2002 graduate of the University of Maine with degrees in Civil and Environmental Engineering and Public Administration/Management.

Greg Lounder – Senior Planner.

Study Responsibility: Solid Waste

- Greg is responsible for the implementation of the Eastern Maine Development Corporation's Solid Waste Grant to communities within the PVCOG and EMDC region. Greg works with PVCOG communities in the delivery of solid waste technical assistance regarding demolition debris, recycling, landfill closures, hazardous waste collection, composting programs, etc. Greg also serves as Executive Director of the Municipal Review Committee and provides administrative support to the Penobscot Valley Refuse Disposal District. Prior to serving PVCOG communities, Greg was Senior Planner for the Northern Maine Development Commission and a Land Use Planner with the Hancock County Planning Commission. Greg received his Bachelor of Arts Degree in Geography and Land Use Planning from the University of Maine.

John Noll – Transportation Planner.

Study Responsibility: Land Use, Format

- John provides planning and technical assistance to the Maine Department of Transportation, municipal officials, and locally appointed boards. He has also worked on the development of municipal comprehensive plans, land use ordinances and has assisted in the delivery of solid waste technical assistance to Maine towns. Prior to joining EMDC, John worked as an environmental consultant with BCM Engineers located in

Plymouth Meeting, Pennsylvania. While at BCM, John prepared environmental clearance documents for local and state road and bridge construction projects, wetlands delineation reports, and performed environmental reviews of proposed development projects for several municipal planning boards in New Jersey and Pennsylvania. He is a graduate of West Chester University, West Chester, Pennsylvania where he received a Bachelor of Arts Degree in Geography and Planning.

Cindy Pellett – Information Systems – Mapping/GIS

Study Responsibility: Mapping/GIS/Data

- Cindy is responsible for managing EMDC's data and mapping needs with her primary duties including developing maps for publications, presentations and general in-house use and also collecting various socio-economic data from different sources. Prior to joining EMDC in 2002, Cindy, a native Pennsylvanian, worked for nearly eight years as a Geographic Information Systems (GIS) research technologist at The Pennsylvania State University. A two-time Penn State graduate, she received her B.S in Environmental Resource Management and her M.E.P.C in Environmental Pollution Control.

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Plum Creek Rezoning Proposal
Infrastructure and Community Impact Analysis

Executive Summary

Identification of Tasks

Plum Creek contracted with Eastern Maine Development Corporation to provide an infrastructure and community impact analysis associated with its proposed rezoning plan for approximately 421,000 acres owned by the company in Piscataquis and Somerset Counties. Eastern Maine Development Corporation was asked to analyze the potential impacts on infrastructure and communities within the Plan Area, as defined in Figure PA 1 at the conclusion of this Executive Summary. In addition, EMDC evaluated potential effects that may occur in the Impact Area, the boundaries of which are shown on Figure IA 1 at the conclusion of the Executive Summary.

Plum Creek is only seeking rezoning of the subject land. Before any development can occur, site plan and subdivision applications will have to be filed and approved by the Land Use Regulation Commission (LURC).

The Study includes an inventory of the region's current assets and infrastructure, including:

- Housing
- Tourism
- Waste Disposal
- Education
- Public Safety
- Health Care Facilities
- Transportation
- Government Services

The region's current inventory and conditions, coupled with the anticipated population impacts from the proposed tourism infrastructure, new industrial facilities, and new housing, were the basis for the impact analysis. Impacts will be both negative and positive. Some impacts will draw on existing services, while other impacts will enhance opportunities for the region.

Assumptions

The anticipated impacts will come from four types of development and two types of conservation:

- A nature-based recreation facility, within a 2,600 acre resort planning envelope at Big Moose Mountain in Big Moose Township;

- A lodge facility within a 500 acre resort planning envelope near the shore in Lily Bay Township;
- Creation of up to 975 residential house lots on shorefront and backland property;
- Development of a sawmill operation, or similar natural resource-based facility, on 90 acres of property that already has the requisite commercial/industrial zoning;
- The grant of a 61,000 acre easement on a block of land covering parts of Days Academy Grant, Spencer Bay Township, T1 R13 WELS, and Frenchtown;
- The grant of 154 miles of shoreland conservation and 144 miles of trail easements (11,000 acres).

For the purposes of this Study, it is assumed that all of the Plum Creek Plan's development components will be implemented and phased in over 8 to 15 years, in accordance with provisions of the Plan. It is anticipated, however, that no impact, positive or negative, will occur until 2008 at the earliest. It is also assumed that all 72,000 acres of conservation offered as balance in the Plan will occur as set forth in the Plan. There are other, contingent, elements of the Plan, as follows:

- The purchase of conservation easements on 269,000 acres of land in 21 townships in the Moosehead region;
- The purchase of the fee interest in 27,000 acres in the Roach Ponds area.

Plum Creek will be obligated to move forward with these transactions upon Plan approval. However, as the financing of these transactions is not within Plum Creek's control, it is not assumed in this Study that the environmental, conservation, recreational, and forestry economy benefits of these transactions will be achieved.

Summary of Existing Conditions

The Study's estimates of the Plan's impacts are made within the context of the Plan Impact Area's existing conditions. A summary of those existing conditions is given below:

Existing School Conditions:

From 1995-2005, enrollment in School Union #60 (Greenville, Shirley, Beaver Cove, Willimantic, Kingsbury Plantation) declined by 40% in grades K-12 (from 449 to 271 students).

Enrollment from the seven unorganized townships and plantations has also decreased 42% from over the last ten years.

From 1995-2005, enrollment in SAD #12 (Jackman and Moose River) declined 22.82% (from 241 to 186 students) in grades K-12.years.

Rockwood Elementary School was originally built to hold 50 students, but currently has 16 students enrolled

Existing Tourism Conditions:

The Moosehead region has historically been a tourist destination, but has lost its anchor hotels. The former Mount Kineo Hotel on Moosehead Lake had capacity for 1,000 visitors. Three other former hotels in the Rockwood area had capacity for 40 to 60 visitors each, and there was additional visitor capacity provided by a number of rooming houses. In the 1930's, over 55 passenger steamboats transported visitors, who arrived on trains three times daily at Greenville Junction.

With the loss of the anchor hotels in the area, some of the difference has been made up by an increase in small businesses, housekeeping camps, and individual rental properties. However, the number of visitors to the North Maine Woods has declined in recent decades.

The current tourist market prefers higher quality facilities, compared to the more rustic accommodations that have been available in the region.

Existing Housing/Population Conditions:

Between 1980 and 2000, the year-round population dramatically declined in the service centers of Greenville and Jackman. Population decline in Greenville, Jackman and within Piscataquis County, is due mainly to the out-migration of residents, rather than through natural change (births and deaths). In Somerset County, modest population growth has been due, on average, to natural increase, not in-migration. More people are working outside of their town of residence. Between 1990 and 2000, the number of workers living and working in the Town of Greenville declined by over 12%. The Town of Jackman shows a similar but more dramatic decline. Presumably, a slower local economy is forcing more workers to commute outside of town to work. This would indicate that some workers would choose to work locally if jobs were available.

Household trends indicate the presence of more retiree, single person and single-parent households. The trend toward smaller household size, along with the increase in demand in seasonal housing, is largely responsible for keeping the demand for housing high, despite the loss of population. The region's aging population, loss of the young, and in-migration of retirees into the area, is causing concern among Greenville officials and business owners about the future of the area's work force.

Currently there is an undersupply of 43 units for families needing rental housing, and an oversupply of 26 units for seniors.

Between 1990 and 2000, seasonal housing and seasonal housing demand grew dramatically. Despite population out-migration, seasonal housing continues to grow in proportion to year-round housing.

There is a demand for seasonal housing in natural settings. Greenville, Jackman and the Unorganized Territories have a small number of "for sale" units, indicating a relatively strong housing market. (Vacancy rates as determined through the US Census are somewhat suspect in

the Impact Area. Census takers are likely to record a seasonal unit with a 'for sale/for rent' sign as such, and not account for the fact that it may be seasonal. This has the effect of driving the vacancy rates higher than it would show otherwise.)

Existing Health Care Facility Conditions:

The decline in the area's population has caused the area's medical facilities, principally C.A. Dean Hospital and the Jackman Regional Health Center, to be underutilized, and at risk of being further downsized. C.A. Dean can accommodate a 60% increase in acute or critical care patients, and a 70% increase in emergency care. The loss or downgrading of either of these facilities can have a profound negative effect on employment and income in the community (as the hospital is one of the major employers in the region.)

Existing Conditions of Public Safety Services:

The greatest challenge to Greenville, the Jackman-Moose River, and the Rockwood Fire Departments, is to maintain an available volunteer fire fighter force, as many volunteers commute to distant jobs. There are no substations or other departments in the Plan Area on the east side of Moosehead Lake.

The Plan Area receives fire suppression and emergency rescue operation services primarily from the Towns of Jackman and Greenville.

Existing Transportation and Traffic Conditions:

The Plan Impact Area includes the following transportation facilities: 1,400 miles of privately owned roads; 2 rural airports; a small, private seaplane base in Jackman; 2 arterials (Route 6/15; SR 201); one major collector (Lily Bay Road) and local roads; a trans-Maine freight rail line through the Greenville and Jackman areas, connecting New Brunswick to the east, through Maine, to Quebec to the west (the vacation excursion train last passed through Greenville in 2001).

What are the Impacts?

As described above, the Moosehead Lake Region has seen a steady decline in population over the past few decades. The Region was once a thriving tourist destination, but the anchors have since closed. The changing economy of the region, like many other parts of the state, has forced a shift in population out of the area, that has stressed the remaining systems to provide a sufficient level of service to fewer users. The existence of substantial, but underutilized, infrastructure means that the proposed Plan development will require much less infrastructure investment than would be required in a totally undeveloped area.

All impacts identified in this Report arise from population increases associated with new construction, an increased number of visitors (once new tourism infrastructure is completed) increases in year round and seasonal residents, including people moving into the area to secure employment, and industrial development associated with a proposed sawmill or similar facility.

This Report makes conservative assumptions in estimating the Plum Creek Plan's potential impacts, in order to maximize impact estimates. Thus, some of the estimated impacts may not actually occur unless the Plan is fully built-out, or may not occur to the extent predicted. It is anticipated, however, that the Plan development would help restore the formerly robust tourism economy.

The principal impacts on infrastructure systems are summarized below:

Education Impacts

1. The overwhelming attitude of the school system administrators within the Plan Impact Area is that, with the dramatic enrollment decline over the past decade, enrollment increases caused by the Plan development would be assimilated quite easily, and would help stabilize the school systems.

Health Care Impacts

1. The increase in population from the Plan development will provide a broader client base for the Impact Area's health care system. This will ensure more use and therefore a more cost-effective and improved delivery system.

Solid Waste Disposal Impacts

1. There is no foreseeable reason that the three existing transfer stations would not be available indefinitely. The projected quantities of waste which may be delivered to these facilities in the future due to implementation of the Plum Creek Plan will have no appreciable impact on future capacity or service capability.
2. The Plan's residential development may shorten the life of the Greenville landfill. The Greenville and Caratunk landfills may be closed before or during the time the Plan is implemented. If the existing landfill facilities in Caratunk and Greenville become unavailable, the statewide system could absorb current and projected waste quantities without any material impact on disposal capacity or market conditions, although the per ton cost of solid waste disposal is likely to increase.

Tourism Impacts

1. Under the terms of the Plan, Plum Creek is required to donate 72,000 acres of conservation and trail easements. This donation would significantly expand permanently conserved land in the region. The addition of these protected lands to the existing conservation in western Maine would create a huge block of conserved land from Baxter State Park to the Canadian border. This would be a marketable asset for the region, and help protect the natural resource base.
2. Establishment of 144 miles of new permanent public trail easements would significantly expand the existing trail systems. The scale of this recreational infrastructure, as well as its permanence, may draw new visitors to the region and support the economy. However, there is a cost in planning and constructing trails.

3. The Plan's resorts may provide the "critical mass" needed to launch a marketing strategy that may significantly increase visitor draw to the region.
4. Resort development will create more services and recreational opportunities for the local residents. Jobs, recreational activities, new special events, and new shops will come as the result of bringing new visitors to the region.
5. It is likely that new improvements provided within a resort will also meet some public service needs as well.
6. Limitations on access to some sensitive natural areas and for some specific recreational experiences may become important in the future to best utilize the landscape and protect the integrity of nature-based experiences.

Housing Impacts

1. Up to an estimated 160 affordable housing units will be needed due to households moving to, or back to, the area to take jobs that the Plan development will bring at full build-out..
2. Construction jobs will bring temporary workers and the need for rental housing.
3. Permanent affordability mechanisms are needed to address the tendency for tourism to inflate housing costs.
4. The house lots in the Plan Area will help address the high market demand for seasonal housing in nature-based settings.

Public Safety Impacts

1. Fire, rescue, and police services in the region are currently stressed, but meet the expectations of the current residents. An increase in population, homes, and resorts due to Plan implementation will stress these services further.
2. There is concern that new residents will expect a higher level of service than existing residents have, increasing pressure for costly improvements.

Transportation Impacts

1. A change in traffic flow and increased roadway utilization is expected as the Plan is implemented. Increased traffic will be primarily centralized in four areas: at the intersection of Rte. 6/15 North in Greenville; near the entrances to the two resort areas; and at the entrance to the industrial site.
2. There are no significant impacts expected on the municipal airports, bridges, or railroad from the Plum Creek Plan.
3. It is likely that new residents and tourists in the region will increase bicycle traffic on public roads.
4. While there is currently no passenger rail service in the region, there was such service as recently as 2004, and there is the potential that this service could be restored. The Plan sets aside an area for a station where passengers could be brought to the Big Moose Resort. This would mitigate increases in car traffic, and provide public transportation where currently there is none.

Government Services Impacts

1. The increase in population within the Plan Area should not have a significant impact on government services in Jackman. Greenville may experience greater impacts due to the larger numbers of people who would be served by Greenville Town Office staff. However, the Town staff in Greenville is not obligated to serve residents of the Unorganized Territories.

Potential Solutions

As noted above, this Report makes conservative assumptions in estimating the Plum Creek Plan's potential impacts, in order to maximize impact estimates. Some of the estimated impacts may not actually occur until Plan build-out, or may not occur to the extent predicted. To the extent, however, that such estimated impacts do occur, there are potential mitigating solutions.

Some potential solutions are already included in Plum Creek Plan, such as the proposals to establish a Community Fund to help finance educational amenities and trail construction, to donate land for affordable housing, and to donate land for solid waste disposal. The Plan also incorporates sustainable development and tourism guidelines into the resort zones to ensure that the development will fit harmoniously into the natural and cultural environment, and will be "sustainable" over the long term.

This Report proposes some further potential solutions that are not currently in the Plum Creek Plan, to mitigate other identified impacts. These include, for example, a proposed impact fee to mitigate impacts on the Greenville solid waste facilities.

Not all mitigation solutions are within Plum Creek's control. Some mitigation solutions are necessarily within the control of other parties, including governmental entities. For example, it is the responsibility of the Maine Department of Transportation to monitor traffic volumes and accidents, plan for road and shoulder improvements and maintenance, and install traffic control devices. Town and county officials are responsible for monitoring and planning for solid waste disposal and public safety needs. Tourism management is another area that is within the purview of governmental entities, primarily the various local and county organizations.

In addition, some potential impacts and solutions cannot be adequately defined until later, after the rezoning Plan is approved, and Plum Creek or a developer files subsequent development permit applications with LURC. The rezoning Plan can require, as a general matter, that any infrastructure impact costs directly caused by resort development be paid for by the resort developer, whether through impact fees, community funds, property taxes, or other funding mechanism. This Report recommends that such a requirement be expressly included in the Plan.

The chapters in this Report discuss all potential solutions in detail. A summary is provided below.

Summary of Solutions

1. Plum Creek's proposed donation of 100 acres of land for affordable housing and inclusion of on-site employee housing at the resorts will support a significant amount of workforce and affordable housing development. Future developers should address the need for temporary locations for trailers that can be designated for use by short-term workers, particularly in the construction trades. However, other resources are needed to meet all the potential affordable housing needs.

2. There will be a need for a source of funds to construct the trails envisioned by the Plan. Plum Creek's Plan addresses this need by including a Community Fund to assist in the planning and construction of recreational infrastructure.

3. The proposed subdivisions will have homeowner associations that will be responsible for the maintenance of the road network inside their respective subdivisions, thereby eliminating the need for upkeep assistance from the counties, nearby municipalities or townships.

4. It is possible that the current landfills in Greenville and Caratunk will be closed either before or during implementation of the Plan. Upon closure, the statewide system could absorb current and projected waste quantities without any material impact on disposal capacity or market conditions. In any event, Plum Creek's Plan offers land for a new landfill, and land for spreading septage waste and/or a transfer facility. If necessary, new land could be made available to serve as a base for whatever solid waste facility is deemed appropriate. This Report also recommends that the Plan include a provision for an impact fee to account for any reduction in the lifespan of the Greenville landfill caused by the Plan's residential development, the specific terms of which can be worked out between Greenville and Plum Creek.

5. To ensure that regional efforts will be fostered to meet the increasing demands for police, fire, and rescue services, discussion between potential developers, local, and state officials should take place. A cooperative planning effort between municipal and county officials, future resort or subdivision developers, and emergency service providers will be needed to address municipal and regional concerns. Plum Creek's Plan commits the company to be part of an effort to designate trail heads, parking areas and helicopter landing zones on its lands which could be used as designated staging areas for emergency services.

6. Through the site plan review process, the resort developer(s) could be held responsible for the costs associated with the acquisition of any new equipment necessary to address safety needs at the resorts. The developers and reviewers should investigate the construction of separate fire substations, first responder equipment, or a dry hydrant system on site. This equipment could be available throughout the region through a service agreement; any such development may, in fact, elevate the readiness and response capabilities region wide.

7. Resort developments and the industrial facility can be required to address increased use of roads by vehicles, pedestrians, and bicyclists. Developers can be required to fund the construction of turning lanes, signage, or other mitigation measures. Resort facility planning

should ensure that trails or private access roads are designed to include to safely accommodate bicyclists and pedestrians.

8. Increased traffic impacts of the Plan at full build-out can be safely accommodated at MDOT's accepted levels of service with minimal, inexpensive improvements.

Impacts on the Northern Forest Region

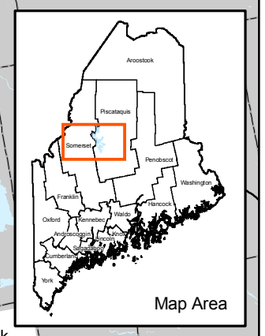
While this Study focuses on the Moosehead Lake Region the proposed Plan warrants consideration within the context of the larger *Northern Forest Regional Strategy*. The Northern Forest Center recently completed *"Communities, Economy and Land: A Regional Strategy for the Northern Forest."* This "call to action" was endorsed by 30 development and conservation groups as well as the Governors of Maine, New York and New Hampshire. Ten strategies are proposed, with the following priorities:

The priorities include:

- Community and Economic Development
- Forest and Agricultural Enterprise
- Land Conservation
- Culture and Heritage
- Recreation and Tourism
- Energy
- Transportation
- Telecommunications

The Northern Forest Lands Council's final report states that "…the east-west connection between forest lands and communities of the four states of New York, Vermont, New Hampshire and Maine point to the future where bold new strategies can be developed to link economic and community opportunities to forest stewardship, conservation and industrial uses." Much of what is being proposed by Plum Creek fits within the strategies outlined by the Northern Forest Council and the Northern Forest Lands Council and their endorsing partners.

Hammond Township
Pittston Academy Grant
Plymouth Township
Seboomook Township
Little W Township
Northeast Carry Township
Lobster Township
T3 R13 WELS
T3 R12 WELS
T3 R11 WELS
Blake Gore
Big W Township
West Middlesex Canal Grant
Alder Brook Township
Bald Mountain Township T4 R3
Soldiertown Township T2 R3 NBKP
TX R14 WELS
T2 R13 WELS
T2 R12 WELS
Rainbow Township
East Middlesex Canal Grant Township
Sandy Bay Township
201
6
Tomhegan Township
Brassua Township
Thorndike Township
Days Academy Grant Township
Spencer Bay Township
T1 R11 WELS
Kineo Township
T1 R13 WELS
Moose River
T1 R12 WELS
Dennistown Plt
Rockwood Strip T1 R1 NBKP
Rockwood Strip T2 R1 NBKP
Long Pond Township
Taunton & Raynham Academy Grant
Moosehead Lake
Lily Bay Township
Shawtown Township
Sandbar Tract Township
Frenchtown Township
TA R11 WELS
Jackman
Sandwich Academy Grant Township
6
15
Misery Gore Township
Attean Township
Sapling Township
Islands of Moosehead Lake
Beaver Cove
Parlin Pond Township
Misery Township
TB R11 WELS
Bradstreet Township
Big Moose Township
Bowdoin College Grant East Township
T5 R7 BKP WKR
Harfords Point Township
Greenville
Johnson Mountain Township
Chase Stream Township
Indian Stream Township
Cove Point Township
Bowdoin College Grant West Township
Upper Enchanted Township
SOMERSET COUNTY
PISCATAQUIS COUNTY
Hobbstown Township
Squaretown Township
Moosehead Junction Township
Elliottsville Township
T7 R9 NWP
201
West Forks Plt
Moxie Gore
6
15
Shirley
Bowerbank



LEGEND

- Plum Creek Land Subject to Resource Plan
- Townships under LURC Jurisdiction
- Logging Roads
- Public Roads

IMPACT ANALYSIS FOR PLUM CREEK REZONING PROPOSAL

FIGURE PA-1: PLUM CREEK PLAN AREA

0 2.5 5 Miles

Sources: MEDOT, MEGIS, Deluca-Hoffman Associates, Inc.
Map revised: May, 2006

N W E S

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GIS SERVICES DATA CENTER

Hammond Township
Pittston Academy Grant
Plymouth Township
Seboomook Township
Little W Township
Northeast Carry Township
Lobster Township
T3 R13 WELS
T3 R12 WELS
Blake Gore
Big W Township
West Middlesex Canal Grant
35 SL
Alder Brook Township
Soldiertown Township T2 R3 NBKP
TX R14 WELS
T2 R13 WELS
T2 R12 WELS
Bald Mountain Township T4 R3
East Middlesex Canal Grant Township
Sandy Bay Township
201
6
Tomhegan Township
Days Academy Grant Township
Thorndike Township
Brassua Township
Kineo Township
Spencer Bay Township
T1 R11 WELS
Moose River
T1 R13 WELS
T1 R12 WELS
Dennistown Plt
164 SL
50 BL
Rockwood Strip T1 R1 NBKP
60 BL
Lily Bay Township
Long Pond Township
Rockwood Strip T2 R1 NBKP
Taunton & Raynham Academy Grant
6 SL
35 BL
Moosehead Lake
16 SL
148 BL
Shawtown Township
79 SL
Sandwich Academy Grant Township
Sandbar Tract Township
Frenchtown Township
TA R11 WELS
Jackman
Misery Gore Township
14 SL
6
15
Sapling Township
33 SL
65 BL
Islands of Moosehead Lake
Beaver Cove
Parlin Pond Township
Misery Township
21 SL
5 BL
35 SL
47 BL
TB R11 WELS
Bowdoin College Grant East Township
Big Moose Township
34 SL
10 BL
8 SL
60 BL
35 SL
15 BL
Johnson Mountain Township
Chase Stream Township
Indian Stream Township
Harfords Point Township
Bowdoin College Grant West Township
Cove Point Township
SOMERSET COUNTY
PISCATAQUIS COUNTY
Squaretown Township
Moosehead Junction Township
Greenville
Elliottsville Township
T7 R9 NWP
Katahdin Iron Works Township
West Forks Plt
201
Moxie Gore
Shirley
Bowerbank
Barnard Township

Map Area

LEGEND

- Plum Creek Land Subject to Resource Plan
- Townships under LURC Jurisdiction
- Logging Roads
- Public Roads

PROPOSED DEVELOPMENT

- Moosehead-Roach River Conservation Easement
- Moosehead Legacy Conservation Easement
- 30-year No Development Buffer
- Roach Ponds Acquistion
- Shoreland Conservation Easement
- Resort Areas (Conceptual)
- Commercial/Industrial
- Residential Development Areas
- Lily Bay Resort
- Big Moose Mountain Resort

80 SL / 320 BL = Proposed Shoreland Lots / = Proposed Backland Lots

IMPACT ANALYSIS FOR PLUM CREEK REZONING PROPOSAL

FIGURE PD-1: PROPOSED DEVELOPMENT AND CONSERVATION LANDS

0 2.5 5 Miles

Sources: MEDOT, MEGIS and Deluca-Hoffman Associates, Inc.
Map revised: May, 2006

N W E S

Eastern Maine Development Corporation
Bangor, ME 04401
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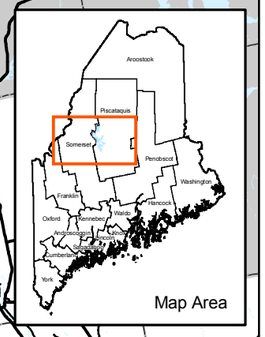
Dole Brook Twp
Comstock Twp
T4 R17 WELS
Elm Stream Twp
T4 R15 WELS
T4 R14 WELS
T4 R13 WELS
T4 R12 WELS
T4 R11 WELS
T4 R10 WELS
T4 R9 WELS
Seboomook Twp
Hammond Twp
Plymouth Twp
Pittston Academy Grant
Northeast Carry Twp
Little W Twp
T3 R10 WELS
Mount Katahdin Twp
Prentiss Twp T4 R4 NBKP
Big W Twp
Lobster Twp
T3 R13 WELS
T3 R12 WELS
T3 R11 WELS
Blake Gore
West Middlesex Canal Grant
TX R14 WELS
T2 R13 WELS
T2 R12 WELS
Rainbow Twp
T2 R10 WELS
Alder Brook Twp
Soldiertown Twp T2 R3 NBKP
East Middlesex Canal Grant Twp
Bald Mountain Twp T4 R3
T2 R9 WELS
Sandy Bay Twp
201
6
Tomhegan Twp
Thorndike Twp
Brassua Twp
Days Academy Grant Twp
T1 R11 WELS
T1 R10 WELS
T1 R9 WELS
Moose River
Kineo Twp
Spencer Bay Twp
T1 R13 WELS
T1 R12 WELS
Dennistown Plt
Rockwood Strip T1 R1 NBKP
Forsyth Twp
Rockwood Strip T2 R1 NBKP
Sandbar Tract Twp
Moosehead Lake
Lily Bay Twp
Long Pond Twp
Gorham Gore
Taunton & Raynham Academy Grant
Frenchtown Twp
Shawtown Twp
TA R11 WELS
TA R10 WELS
T4 Indian Purchase Twp
Sandwich Academy Grant Twp
Jackman
6
15
Misery Gore Twp
Attean Twp
Holeb Twp
Sapling Twp
Islands of Moosehead Lake
Beaver Cove
Lowelltown Twp
Parlin Pond Twp
Misery Twp
Big Moose Twp
TB R11 WELS
TB R10 WELS
Long A Twp
Bradstreet Twp
Bowdoin College Grant East Twp
T5 R7 BKP WKR
Appleton Twp
Harfords Point Twp
Johnson Mountain Twp
Chase Stream Twp
Indian Stream Twp
Cove Point Twp
Bowdoin College Grant West Twp
T5 R9 NWP
T4 R9 NWP
Skinner Twp
Upper Enchanted Twp
Hobbstown Twp
Squaretown Twp
SOMERSET COUNTY
PISCATAQUIS COUNTY
Moosehead Junction Twp
Elliottsville Twp
T7 R9 NWP
T5 R6 BKP WKR
West Forks Plt
201
Moxie Gore
Greenville
6
15
Katahdin Iron Works Twp
Lower Enchanted Twp
Williamsburg Twp
Shirley
Bowtown Twp
East Moxie Twp
Willimantic
Bowerbank
Monson
Barnard Twp
The Forks Plt
Pierce Pond Twp



LEGEND

- Plum Creek Land Subject to Resource Plan
- Townships under LURC Jurisdiction
- Public Roads
- Impact Area

IMPACT ANALYSIS FOR PLUM CREEK REZONING PROPOSAL

FIGURE IA-1: PLUM CREEK IMPACT AREA

0 2.5 5 Miles

Sources: MEDOT, MEGIS and EMDC
Map created: April, 2006

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GIS SERVICES DATA CENTER

1.0 Introduction and Project Overview

This Report estimates impacts associated with development that could occur as a result of the proposed Plum Creek Plan submitted to the Land Use Regulation Commission (LURC), to re-zone 421,000 acres owned by Plum Creek Maine Timberlands, LLC located in Somerset and Piscataquis Counties. This is not a market feasibility study to determine the viability of the development that could occur based on a rezoning change. The Report estimates impacts on infrastructure and systems from the Plan's development components.

While economic impact data are cited in the Report, this study is not an *economic* impact analysis. Such an analysis was completed in April 2006 by Dr. Charles Colgan entitled *"Estimated Economic Impacts of Implementing the Proposed Plum Creek Rezoning Plan in the Moosehead Lake Area."* The community and infrastructure impacts discussed in this Report complement the economic impact analysis. The assumptions used in this Report mirror, to a considerable degree, the assumptions in the economic impact study, to maintain continuity. In cases where there are disparities, they are noted. The Colgan Economic Impact Study realistically, but conservatively assumes lower figures in estimating the economic benefits of the Plan. This EMDC community impact and infrastructure analysis, on the other hand, assumes higher figures to maximize potential impacts so as to determine the highest level of stress that may occur.

While development in the region is projected to create economic benefits, it is equally important to anticipate the long term infrastructure impacts, both positive and negative, that could occur due to the Plan implementation. How the existing infrastructure will react to the proposed activities is the central theme of the study.

Assumptions

To estimate properly potential impacts resulting from the Plan development, it is necessary to work from a base of assumptions. Many of the assumptions in this Report correspond to Dr. Colgan's March 2006 Economic Impact Study.

The planning envelopes in the Plan limit and define the level of development within the 421,000 acre Plan Area. The three types of proposed planning envelopes are:

Residential Development (shorefront and backlot envelopes)	RD
Tourism and Recreation Development (resort envelopes)	TRD
Industrial Development (already zoned commercial/industrial)	ID

Total Plan Scope

- Total land in the proposed Plum Creek Plan Area is 421,000 acres
- Total land in the Plan Area where development is allowed is 11,000 acres
- 165 miles of shoreline (86 percent of all shoreline in plan) set aside for permanent conservation

- Up to 366,000 acres set aside in long term protection for non development, forest management
- 27,000 acres offered to the State of Maine or a conservation entity to buy in fee
- 269,000 acre conservation easement available for sale for a period of 5 years to The Nature Conservancy
- Grant of 72,000 acre permanent conservation easement

1.1 Residential Development

The residential component of the Plan may be its most dynamic element. The 975 house lots are presently allocated to multiple subdivisions within the Plan Area. While final locations of the individual subdivisions may ultimately be modified, the general location, with a breakdown of shorefront and backland lots, are shown on Table I-1: Residential Lot Locations

Table 1-1: Residential Lot Location

Residential Lot Location	Shoreland Lots	Backland Lots
Long Pond	79	-
Brassua Lake	164	50
West Shore, Moosehead Lake Area	96	95
Backlots Between Greenville and Rockwood	-	125
Indian Pond	34	10
Burnham Pond	21	5
Moosehead Lake Area Between Greenville and Lily Bay	16	-
Lily Bay Township	-	148
Beaver Cove	-	31
Prong Pond Area	35	16
Upper Wilson Pond	35	15
Total	***480***	***495***

The development of these residential lots will have a material impact on the Impact Area. Solid waste collection, traffic patterns, and education facilities are all impacted by the location of house lots. The proportion of seasonal to year round residences will also affect the level of impact. To conform to the assumptions in Dr. Colgan's Economic Impact Analysis, it is assumed here that 65 percent of the residential development in the Plan Area will be seasonal, (five months per year).[1]

[1] This percentage is close to the 68% average for the entire Housing Impact Area. The average for the UT component of the Housing Impact Area is 86%. The average for the 4 organized towns in the Housing Impact Area (Greenville, Shirley, Jackman and Moose River) is 37%. (These averages are derived from 2000 U.S. Census data.) Using a 65 percent seasonal housing rate provides a conservative (i.e., maximized) analysis of infrastructure impacts.

1.2 Tourism and Resort Development

The Plum Creek Plan outlines a vision for tourism facilities in two (2) resort envelopes:

- Big Moose Mountain Resort/Recreation area (2,600 acres within the Greenville/Rockwood corridor) and
- The Resort at Lily Bay (500 acres within the Greenville/Lily Bay corridor).

Table I-2: Construction of Tourism Facilities at Big Moose Mountain and Lily Bay

	Big Moose Mtn.	Lily Bay
Construction Costs	$75,000,000.00	$12,500,000.00
Construction Period	2015	2010-2011
Operating Employment	300	175

Both resort envelopes are located near existing infrastructure and close to the service center of Greenville (see Figure TO-1). The two tourism facilities would improve the community economy by anchoring the community on both sides with two "economic drivers."

The Big Moose Mountain facility is envisioned as an all-purpose resort attraction; attracting families, outdoor recreation enthusiasts, young adventurers, golfers, business conference attendees, and "experiential" tourists. The facility would tie into the ITS snowmobile trail network, possibly to the Big Squaw ski area and to two new hiking trail systems: the Peak-to-Peak trail and the Moosehead to the Mahoosucs Trail. A new Nordic and biking trail also is planned and is integrated with this resort.

The Lily Bay tourism facility is envisioned as a five star destination resort. This facility is proposed to be of local materials, with an emphasis on guided and self-guided nature experiences. This facility would have market appeal to international visitors, retirees, and travelers interested in nature, culture, and history.

Proposed Public Trail Development

Permanent Hiking (Peak-to-Peak and Western Mountain Trail) Easement (58 miles)
Permanent hiking trail easements extending over 58 miles are proposed to be conveyed upon LURC approval of the rezoning Plan. Two major trail systems are to be created. The first, the Peak-to-Peak trail around two-thirds of Moosehead Lake, is about 55 miles long with a short spur. It connects with the Appalachian Trail and the proposed resorts. A second, 12-mile trail, part of the Moosehead to the Mahoosucs Trail, ties into the Peak-to-Peak trail and follows the northwestern shore of Indian Pond. The easements will be held by the State Bureau of Parks and Lands and/or an approved 501(c)(3) organization.

Permanent Snowmobile (ITS) Trail Easement (74 miles)
Permanent trail easements, comprising 74 miles of ITS snowmobile trail, will link the Moose River region, through Greenville to the greater Baxter Park region, and would be conveyed upon LURC approval of the Plan. The easement will be conveyed to the State Bureau of Parks and Lands or an approved 501(c)(3) organization.

Nordic Ski and Bike Trail at Big Moose Resort (35-50 kilometers)
The vision for the resort at Big Moose Mountain is to have 35 to 50 kilometers of trails designed for cross-country and telemark skiing. These same trails will be able to be used by bicyclists in the summer and fall.

1.3 Industrial Development

The industrial development portion of the proposed Plan is derived from a developer's 2004 proposal to build a sawmill in Somerset County. The industrial zone's location is on a 90-acre parcel surrounded by the Rockwood to Greenville no-development buffer. The location of the industrial development zone is shown in Figure PD-3: Industrial Development.

The development of the facility is not currently defined and will occur only in the instance that a private developer concludes that such a venture is financially feasible. Traffic resulting from such a facility would include:

- Employee access to and from the operation;
- Truck traffic hauling raw material and finished product; and
- Heavy haul of waste material to a designated site to include a biomass facility that could utilize the scraps, or to a value added wood pellet operation that could be constructed at a future date.

Table 1-3: Sawmill Construction

Construction Cost	$60,000,000.00
Construction Employment	200
Operating Employment	100

1.4 Conservation Plan Components

The Plan includes various conservation components. The permanent conservation easement of over 61,000 acres that Plum Creek will convey, upon Plan approval will conserve the largest unprotected block of land between Moosehead Lake and Baxter State Park. Plum Creek has also offered to sell 27,000 acres of land in the Roach Pond area, through the Land for Maine's Future program or other means, at any time during the five years following Plan approval. Combined with the 72,000 acre donation these areas will create a continuous stretch of land where development is permanently prohibited, connecting the eastern shores of Moosehead to the Roach Ponds, the Nahmakanta Public Reserve Unit, the Appalachian Trail and the 100-Mile Wilderness, the Katahdin Forest Easement, and Baxter State Park. Finally, Plum Creek's offer of an option to the State or qualified conservation entity to purchase a working forest conservation easement over another 269,000 acres during the 5 years following Plan approval will provide the public an opportunity to conserve an entire region in the Moosehead Lake area.

The Plan's proposed permanent trail easements allow for extended, permanent connectivity of the trail system. Both the hiking and snowmobile systems will benefit from the creation of new trails that would connect with existing trail infrastructure. This will enhance the system by adding capacity to the trail network.

These expanded conservation components, and the consolidation of the development components, are in response to the public scoping sessions conducted by LURC on Plum Creek's original Plan application, filed in April 2005. The public indicated its preference that house lot development be located in defined corridors, and that the proposed resorts be sited closer to Moosehead Lake and Greenville, (with specific mention of Big Moose Mountain) while providing substantial "green" infrastructure in the region, through conservation measures and opportunities. Plum Creek's decision to relocate the resorts to Big Moose Mountain and, in Lily Bay, closer to Greenville and Moosehead Lake allow for better utilization of existing services within the Greenville service center.

The total set of conservation measures proposed in the 2006 Plum Creek Plan include 72,000 acres of permanent conservation including shoreland easements, a 61,000 acre conservation easement, and 144 miles of permanent trail easements within the Plan Area. Plan approval will also provide the opportunity through the Plan's proposed Conservation Framework to secure another 296,000 acre conservation easement, a 27,000 acre conservation sale (both within the Plan Area), and a 45,000 acre fee sale outside the Plan Area for permanent conservation. When the Plan and Conservation Framework are fully implemented, 205 miles of permanent shorefront conservation will be in place, and all of Plum Creek's shorefront ownership on 69 lakes and ponds will be permanently protected. See the Summary in the Plan Description for a synopsis of all the conservation components.

2.0 Housing

2.1 Overview

The housing market in the Housing Impact Area[2] includes the service center communities of Jackman and Greenville, smaller village settlements along the shores of Moosehead Lake such as Beaver Cove and Rockwood, and then relatively remote, primarily seasonal, housing located among the 29 minor civil divisions within the Plan Area. Jackman and Greenville are located outside the Plan Area, but function as regional job and service centers, and thus serve as a center of housing for the Plan Area. The areas included for this housing analysis are described in Table 2-1. Comparisons are provided for Piscataquis and Somerset Counties and the State of Maine.

There are several major drivers in any regional housing market. Housing demand and supply is largely a function of people and their motivation for establishing a residence (seasonal or year round). Increased employment, seasonal amenities, the search for small town rural living in a natural environment, proximity to family and friends are some of the major 'drivers' for the housing market in the Rezoning Plan Area. The rezoning Plan has the potential to spur market demand, but this is subject to a number of other regional and national trends in the recreation market that are beyond the scope of this report.

The focus of this Chapter is the effect the implemented Plum Creek Plan may have on the affordable housing market. 'Affordable housing' means decent, safe and sanitary living accommodations that are affordable to persons in the very low, low, and moderate-income groups. The State defines an affordable owner-occupied housing unit as one for which monthly housing costs do not exceed approximately 30 percent of monthly income, and an affordable rental unit as one that has a rent not exceeding 30 percent of monthly income (including utilities).

Table 2-1: Townships included in Census Designated Unorganized Territories

Northeast (NE) Piscataquis Unorganized Territories (UT):	Northwest (NW) Piscataquis Unorganized Territories (UT):	Seboomook Lake Unorganized Territories (UT):	Northeast Somerset Unorganized Territories (UT):
T8 R11 WELS	Soper Mountain Twp	Soldiertown Twp T2 R3 NBKP	Misery Twp
T4 R9 NWP	T4 R12 WELS	T8 R17 WELS	Misery Gore Twp
T4 R9 WELS	Islands of Moosehead Lake	West Middlesex Canal Grant	Indian Stream Twp
T5 R11 WELS	T4 R13 WELS	T9 R16 WELS	Brassua Twp
Bowdoin College Grant	Northeast Carry Twp	T5 R18 WELS	Johnson Mountain

[2] The 'Housing Impact Area' for the purposes of this study includes an area that encompasses a number of communities and territories that are within or immediately adjacent to the area proposed for rezoning by Plum Creek. Due to how the Census Bureau aggregates data for some of the Unorganized Territories, the housing data includes some areas outside the Impact Area. Thus, this housing chapter uses the broader Housing Impact Area. Excluding these areas, however, would have resulted in an undercount of the overall housing supply impacted by the proposed rezoning.

W.Twp			Twp
Rainbow Twp	Harfords Point Twp	T8 R16 WELS	East Moxie Twp
T5 R9 NWP	T4 R15 WELS	T10 R16 WELS	Parlin Pond Twp
Elliotsville Twp	T6 R14 WELS	Little W Twp	Taunton & Raynham Academy Grant
T5 R9 WELS	T6 R13 WELS	T7 R16 WELS	Tomhegan Twp
T10 R10 WELS	Cove Point Twp	Big W Twp	Long Pond Twp
T6 R10 WELS	T6 R12 WELS	T7 R19 WELS	Squaretown Twp
T6 R11 WELS	T5 R12 WELS	T8 R18 WELS	Rockwood Strip T1 R1 NBKP
Mount Katahdin Twp	Days Academy Grant Twp	Bald Mountain Twp T4 R3	Bald Mountain Twp T2 R3
T7 R10 WELS	T5 R14 WELS	Blake Gore	Sapling Twp
T7 R11 WELS	T5 R15 WELS	T8 R19 WELS	Mayfield Twp
T3 R11 WELS	T4 R14 WELS	Big Six Twp	Sandwich Academy Grant Twp
T3 R10 WELS	T8 R15 WELS	T7 R17 WELS	Sandbar Tract Twp
T7 R9 NWP	T9 R15 WELS	Big Ten Twp	Moxie Gore
T7 R9 WELS	Big Moose Twp	Dole Brook Twp	Rockwood Strip T2 R1 NBKP
T10 R9 WELS	T9 R14 WELS	Prentiss Twp T4 R4 NBKP	Chase Stream Twp
TA R11 WELS	T9 R13 WELS	Pittston Academy Grant	
T8 R10 WELS	T9 R12 WELS	Thorndike Twp	
T9 R10 WELS	T2 R13 WELS	Elm Stream Twp	
T2 R9 WELS	TX R14 WELS	Russell Pond Twp	
T8 R9 WELS	Chesuncook Twp	Hammond Twp	
Barnard Twp	T3 R13 WELS	Sandy Bay Twp	
Frenchtown Twp	Moosehead Junction Twp	T5 R17 WELS	
TB R11 WELS	Kineo Twp	T4 R17 WELS	
TB R10 WELS	T10 R14 WELS	T4 R5 NBKP	
T10 R12 WELS	Spencer Bay Twp	Alder Brook Twp	
Bowdoin College Grant East Twp	T10 R15 WELS	Plymouth Twp	
T4 R10 WELS	T8 R14 WELS	T9 R18 WELS	
TA R10 WELS	Eagle Lake Twp	Saint John Twp	
T9 R9 WELS	East Middlesex Canal Grant Twp	Seboomook Twp	
T1 R10 WELS	T10 R13 WELS		
T1 R11 WELS	T3 R12 WELS		
T1 R12 WELS			
T1 R13 WELS			
T9 R11 WELS			
T2 R12 WELS			
T4 R11 WELS			
T2 R10 WELS			
T1 R13 WELS			
T9 R11 WELS			
T2 R12 WELS			
T4 R11 WELS			
T2 R10 WELS			

2.2 Current Situation

Housing Supply

There were 6,124 units of housing in the housing market for the Housing Impact Area in 2000. Jackman and Greenville accounted for 32 percent of those units, with the remainder more dispersed. Occupied housing was much more heavily concentrated in the service centers of Jackman and Greenville, where 62 percent of the units are located. Seasonal housing accounted for 4,146 units, or 68 percent of the total housing units in the entire Housing Impact Area, but there is a sharp difference between the proportion of seasonal units in the Unorganized Territory and the organized towns (86% for the former and 41% for the latter). Jackman and Greenville account for only 17 percent of the total seasonal units.

Most concentrations of housing are found in Greenville and Jackman, in traditional village areas and in shoreland areas. Newer housing tends to be placed in outlying shore land areas at lower densities.

Table 2-2 Impact Area Housing Summary in 2000

Geography	Total Units	Total Units-Town	Total Units-UT	Total Seasonal	Total Seasonal-Town	Total Seasonal-UT	Total House-holds	Total House-holds Town	Total House-holds UT	Total Population
Greenville	1,378	1,378		524	524		731	731		1,623
Jackman	585	585		193	193		310	310		718
Beaver Cove	224	224		173	173		46	46		91
N.W. Piscataquis UT	982		982	895		895	80		80	159
N.E. Piscataquis UT	1,214		1,214	1,037		1,037	157		157	347
N.E. Somerset UT	1,062		1,062	881		881	165		165	354
Seboomook Lake UT	368		368	315		315	22		22	45
Shirley	189	189		95	95		81	81		183
Moose River	122	122		33	33		81	81		219
Impact Area[1]	**6,124**	**2,498**	**3,626**	**4,146**	**1,018**	**3,128**	**1,673**	**1,249**	**424**	**3,739**
Piscataquis County	13,783			5,512			7,278			17,235
Somerset County	28,222			5,906			20,496			50,888
Maine	651,901			101,470			518,200			1,274,923

Source: Census

Note: Greenville Housing Market: Greenville, Beaver Cover, Northwest Piscataquis Unorganized Territories, Shirley, and Seboomook Lake Unorganized Territories

Population

Year round population dramatically declined in the service centers of Greenville and Jackman between 1980 and 2000, with a population loss of 501 during that time (a 17.6 percent decline). Population growth in the unorganized territories within the Housing Impact Area has increased, growing from 753 people in 1990 to 905 people in 2000 (a 20.2% increase). In 2000, Jackman and Greenville still represent nearly 63% of the total population in the Housing Impact Area, despite a trend toward higher rates of housing formation in the Unorganized Territories.

Table 2-3: Population Change

Geography	1980	1990	2000	2004 estimated	Average Annual Change
Greenville	1,839	1,884	1,623	1,692	-.33%
Jackman	1,003	920	718	718	-1.1%
Beaver Cove	56	104	91	91	2.6%
N.W. Piscataquis UT*	No data	141	159	159	.91%
N.E. Piscataquis UT*	No data	216	347	347	4.3%
N.E. Somerset UT*	No data	377	354	356	-.40%
Seboomook Lake UT*	No data	19	45	45	9.7%
Shirley	242	271	183	198	-.75%
Moose River	252	233	219	219	.54%
Impact Area	**3,392 (Incomplete)**	**4,165**	**3,739**	**3,825**	**-.58%**
Piscataquis County	17,634	18,653	17,235	17,525	0.0%
Somerset County	45,028	49,767	50,888	51,584	0.6%
Maine	1,124,660	1,227,928	1,274,923	1,317,253	0.7%
* based on 1990-2004 data only Source: Census					

Population decline in Greenville, Jackman, and in Piscataquis County is due mainly to the out-migration of residents, rather than through natural change (births and deaths). In Somerset County, modest population growth has been due, on average, to natural increase, not in-migration.

Table 2-4: Migration and Population Change

Geography	1990-2000			
	Births	Deaths	Natural Change	Net Migration
Greenville	213	297	-84	-177
Jackman	157	113	+44	-246
Somerset County	6,615	5,389	1,226	-105
State of Maine	161,751	128,399	33,352	13,643
Source: Maine Department of Human Services, U.S. Census				

Commuting Patterns

More people are working outside of their town of residence than have done so previously. Thus, while the number of commuters decreased by 6.4%, the number of workers living and working in the Town of Greenville, for example, declined by over 12% between 1990 and 2000. The Town of Jackman shows similar patterns, with an even more dramatic decline in the percentage of workers residing and working in that Town between 1990 and 2000. The percentage of workers living in Jackman declined from 82.8% to 64.7% during that same period. Presumably, a slower local economy is forcing more workers to commute outside of town to work. This would indicate that some workers would choose to work locally if jobs were available, as opposed to their relatively long commutes to employment in adjacent job centers.

Table 2-5: Commuting Patterns

Category	Year	Greenville		Piscataquis County		Somerset County		Jackman	
Total Commuters	1990	761	100%	7,373	100%	21,105	100%	378	100%
Work and Reside in Same Town		644	84.6%					313	82.8%
Work in County of Residence		700	92.0%	6078	82.4%	14,990	71%	375	99.2%
Work in Other Maine County		55	7.2%	1220	16.5%	5,968	28.3%	3	.79%
Work in Other State		6	.8%	75	15%	147	0.7%	0	0%
Total Commuters	2000	712	100%	7115	100%	22,767	100%	338	100%
Work and Reside in Same Town		565	79.4%	na	na	na	na	219	64.7%
Work in County of Residence		650	91.3%	5367	75.4%	14,937	65.6%	324	95.8%
Work in Other Maine County		60	8.4%	1670	23.5%	7,592	33.3%	8	2.3%
Work in Other State		2	0.3%	78	1.1%	238	1%	6	1.7%

Source: U.S. Census

Household Size and Median Age

Household size has decreased at the municipal, county and state levels due to more retiree, single-person and single-parent households. The median age of residents increased at all levels in the Housing Impact Area due to the influx of retirees and reduced numbers of resident births in Piscataquis County. This trend towards smaller household size, along with the increase in seasonal housing, has helped sustain housing demand, despite the loss in year round population.

Table 2-6: Households

Geography	Number of Households			Persons Per Household			Median Age		
	1990	2000	Change	1990	2000	Change	1990	2000	Change
Greenville	794	731	-7.9%	2.33	2.19	-6%	38.2	43.2	13.1%
Jackman	371	310	-16.4%	3.10	2.25	-27.4%	34.8	39.6	13.7%
Beaver Cove	44	46	4.5%	2.55	1.98	-22.3%	42.5	53.5	25.8%
N.E Piscataquis UT	94	157	67.0%	2.95	2.21	-25%	37.9	46.5	22.6%
N.W. Piscataquis UT	62	80	29.0%	2.54	1.99	-21%	41.1	46.8	13.8%
Seboomook Lake UT	9	22	144.4%	3.20	2.05	-35.9%	41.9	49.5	18.1%
N.E. Somerset UT	157	165	5.1%	2.40	2.15	-10.4%	40.6	44.2	8.9%
Shirley	102	81	-20.6%	3.20	2.26	-29.3%	35.1	42.5	21.1%
Moose River	86	81	-5.8%	3.13	2.46	-21.4%	32.2	42.5	32.1%
Impact Area*	**1,719**	**1,673**	**-2.7%**	**2.82**	**2.17**	**-23.0%**	**37.3**	**43.3**	**16.6%**
Piscataquis County	7,194	7,278	1.2%	2.56	2.34	-8.6%	36.5	42.1	15.3%
Somerset County	18,513	20,496	10.7%	2.65	2.44	-7.9%	33.8	38.9	15.1%
Maine (State)	46,5312	518,200	11.4%	2.56	2.39	-6.6%	33.9	38.6	13.9%

*Weighted Average
Source: Census

The median age of the population has increased at rates comparable to the State, although some communities have seen a more dramatic increase in the median age of their population. Furthermore, the median age of many of the communities in the Housing Impact Area is often greater than the State average, indicating the aging of the population, loss of the young, and the immigration of retirees into the area. This aging of the population is causing increased concern among Greenville officials and business owners about the future of the area's workforce.[3]

Housing Growth

Housing unit growth from 1980 through 2000 increased at a slightly greater rate in Greenville than in Piscataquis County and the State as a whole, despite the lack of population growth in Greenville. The increase in housing units and declining population in many locations, as noted below, indicates that much of the newly constructed housing is used seasonally and not occupied by year-round residents. This is demonstrated in Tables 2-7 and 2-8.

Housing unit permits issued from 2000 to 2004 averaged 18.6 permits on an annual basis for Greenville, 67.4 for Piscataquis County and 97.8 for Somerset County. This pattern demonstrates the attraction of Greenville (and the greater area) to the overall housing market in the area. During this period, Greenville alone accounted for nearly 27% of total housing starts recorded in Piscataquis County.

[3] See "Greenville at the Crossroads: The Dire Need to Grow Our Population and To Enrich Our Community; An Unsolicited Analysis and Proposal Prepared by Town Manager John Simko;" Prepared March 17, 2002, Updated April 12, 2002.

Table 2-7: Household Units and Building Permits

Geography	Total Housing Units					Building Permits 2000-2004			
	1980	1990	2000	Total Growth	Annual Avg.	Single Family	Multi-family	Total	Annual Avg.
Greenville	1,044	1,317	1,378	32.0%	1.6%	91	2	93	18.6
Jackman	493	526	585	18.7%	0.9%	No Data	No Data	No Data	No Data
Beaver Cove	124	218	224	80.6%	4.0%	No Data	No Data	No Data	No Data
*N.W Piscataquis UT	No Data	903	982	8.7%	0.9%	No Data	No Data	No Data	No Data
*N.E. Piscataquis UT	No Data	1,260	1,214	-3.7%	-0.4%	No Data	No Data	No Data	No Data
*Seboomook Lake UT	No Data	195	368	88.7%	8.9%	No Data	No Data	No Data	No Data
*N.E. Somerset UT	No Data	972	1,062	-9.3%	.93%	No Data	No Data	No Data	No Data
Shirley	136	170	189	39.0%	1.9%	18	0	18	3.6
Moose River	119	134	122	2.5%	0.1%	No Data	No Data	No Data	No Data
***Impact Area**	**1,916 (incomplete)**	**5,695**	**6,124**	**7.5%**	**.75**	--	--	--	--
Piscataquis County	10,731	13,194	13,783	28.4%	1.4%	335	2	337	67.4
Somerset County	20,890	24,927	28,222	35.1%	1.8%	473	16	489	97.8
State of Maine	501,093	587,045	651,901	30.1%	1.5%	33,819	3123	36,942	7,388.4

* based on 1990-2000 data
Source: Census (100 Percent Data), U.S. Department of Housing, Percents Rounded

Housing Occupancy and Change

In the context of flat population growth, decreasing household size, and an increasing proportion of the available housing used seasonally, trends in future occupancy can be anticipated. As noted earlier, household occupancy rates have declined in Greenville between 1990 and 2000. Most of this decline was felt in the rental market, as the number of rental occupied units declined from 265 to 224, a decline of 15 percent. In Jackman, there was a similar loss of rental units, declining from 109 in 1990 to 88 in 2000 (a 19 percent decline). Across the Housing Impact Area, rentals declined from 456 to 429 (5.9 percent), while owner occupied units declined by 19 households. At the same time, the number of vacant rental units (for rent) increased from 53 to 109 units. Most of these vacancies were in Greenville and Jackman, as vacancies grew from 42 in 1990 to 93 in 2000.

During a period of escalating real estate prices, this decline (in the absence of major economic changes) would indicate that rental units are becoming less affordable. However, a flat economy, net nominal job creation caused by the loss of a major lumber mill in the early 1990's, and a generally flat tourism economy also reduced pressures on the rental market.

As real estate prices escalate, the conversion of rental units to year round units is also an issue. This trend was noted in the Greenville Comprehensive Plan in 1999 and is likely to have accelerated since then.

Seasonal housing in Greenville grew rather dramatically between 1990 and 2000, increasing by 104 units from 420 to 524 units during this period. Since the total number of housing units grew by only 61 units during this period, much of the growth in seasonal housing is due to the conversion of occupied, owner or renter housing. Across the Housing Impact Area, seasonal housing grew from 3,752 to 4,146, an increase of 10.5 percent. Vacant units not otherwise used seasonally or in transition between occupants increased between 1990 and 2000 by 125 percent, representing 70 units. This would indicate a declining housing market, as this category includes abandoned housing. Given the increase in real estate values over the past 6 years, however, many of these formerly vacant properties can be assumed to be more fully utilized, although we

have also heard anecdotally that some of these units were and continue to be vacant as their owners seek employment outside the area and leave their residence empty. Finally, it should also be noted that among the 305 units of vacant housing not classified as seasonal in the Impact Area, Jackman and Greenville account for 205, or 67% of this figure.

Vacancy rates, as determined through the US Census and indicated in Table 2-8, are somewhat suspect in the Impact Area. Census takers are likely to record a seasonal unit with a 'for sale/for rent' sign as such, and not account for the fact that it may be seasonal. This has the effect of driving the vacancy rates higher than it would show otherwise.[4] This measure only reflects occupied/year round units.[5] However, to the extent that we can make inferences from vacancy rates the following points emerge:

- Rental vacancy rates in Greenville and Jackman, the prime locations for rental housing, are high, 18.8% and 31.8%, respectively, compared to 7.0% for the State in 2000. As noted earlier, it is likely that some of these units listed as 'for rent' are actually seasonal units that are for rent only a portion of the year and should not be counted. The seasonal nature of the housing market and the poor economy are also contributing factors.
- Both Greenville and Jackman had a homeowner vacancy rate nearly 2-4 times the state average, 3.2% and 6.3%, respectively, compared to 1.7% for the State, indicating a somewhat weak housing market.
- Within the Unorganized Territories there was also a somewhat lower homeowner vacancy rate of 3.6%, and the renter vacancy rate was 12%.

Table 2-8: Housing Occupancy and Vacancy in 2000

Geography	Total Housing Units	Occupied			Homeowner* Vacancy Rate	Renter* Vacancy Rate
		Owner	Renter	Total Occupied		
Greenville	1,378	507	224	731	3.2	18.8
Beaver Cove	224	40	6	46	4.8	25.0
Shirley	189	74	7	81	3.9	12.5
N.W. Piscataquis UT	982	57	23	80	1.7	4.2
N.E. Piscataquis UT	1,214	137	20	157	2.1	4.8
Jackman	585	222	88	310	6.3	31.8
Moose River	122	70	11	81	2.8	0.0
Seboomook Lake UT	368	15	7	22	16.7	50.0
N.E. Somerset UT	1,062	122	43	165	3.9	8.5
Impact Area	**6,124**	**1,244**	**429**	**1,673**	**2.7**	**11.7**
Piscataquis County	13,783	5,789	1,489	7,278	4.0	13.6
Somerset County	28,222	15,952	4,544	20,496	2.9	11.4
State of Maine	651,901	370,905	147,295	518,200	1.7	7.0

*Homeowner vacancy = for sale only/(for sale only + owner occupied). Rental Vacancy = for rent/(for rent + renter occupied)

Source: Census

[4] Also note that even seasonal rental vacancy rates will tend to be inflated due to the census counts being taken during the mud season.

[5] In addition, the vacancy rates would seem to contradict the current high demand for seasonal housing in the Plum Creek Plan Area. However, the current seasonal market prefers a higher quality housing than is currently available in this region, which may explain the higher rates.

Table 2-9: Vacant Housing Units in 2000

Geography	For Rent	For sale only	Rented or sold not occupied	For Seasonal, Recreational or Occasional Use	For Migrant Workers	Other Vacant	Total Vacant Units
Greenville	52	17	6	524	1	47	647
Beaver Cove	2	2	0	173	0	1	178
Shirley	1	3	1	95	0	8	108
N.W. Piscataquis UT	1	1	0	895	1	4	902
N.E. Piscataquis UT	1	3	1	1,037	0	15	1,057
Jackman	41	15	4	193	3	19	275
Moose River	0	2	0	33	0	6	41
Seboomook Lake UT	7	3	0	315	0	21	346
N.E. Somerset UT	4	5	2	881	0	5	897
Impact Area	**109**	**51**	**14**	**4,146**	**5**	**126**	**4,451**
Piscataquis County	234	244	73	5,512	3	8	6,505
Somerset County	587	476	191	5,906	8	558	7,726
State of Maine	11,153	6,249	3,569	101,470	70	11,190	133,701

Source: Census

Table 2-10: Housing Occupancy and Vacancy in 1990

Geography	Total Housing Units	Occupied			Homeowner* Vacancy Rate	Renter* Vacancy Rate
		Owner	Renter	Total Occupied		
Greenville	1317	529	265	794	6.21	10.17
Beaver Cove	218	40	4	44	0.00	0.00
Shirley	170	92	10	102	4.17	23.08
N.W. Piscataquis UT	903	46	16	62	2.13	5.88
N.E. Piscataquis UT	1260	89	5	94	4.30	0.00
Jackman	526	262	109	371	1.13	9.92
Moose River	134	74	12	86	3.90	14.29
Seboomook Lake UT	195	2	7	9	0.00	0.00
N.E. Somerset UT	972	129	28	157	2.27	15.15
Impact Area	**5695**	**1263**	**456**	**1719**	**4.03**	**10.41**
Piscataquis County	13194	5654	1540	7194	2.80	10.31
Somerset County	24927	14513	4210	18513	1.40	7.49
State of Maine	587045	327888	137424	465312	1.77	8.41

*Homeowner vacancy=for sale only/(for sale only + owner occupied). Rental Vacancy=for rent/(for rent + renter occupied)

Source: Census

Table 2-11: Vacant Housing Units in 1990

Geography	For Rent	For sale only	Rented or sold not occupied	For seasonal, Recreation or occasional use	For Migrant Workers	Other Vacant	Total Vacant Units
Greenville	30	35	17	420	0	21	523
Beaver Cove	0	0	0	170	0	4	174
Shirley	3	4	2	51	0	8	68
N.W. Piscataquis UT	1	1	0	837	1	1	841
N.E. Piscataquis UT	0	4	0	1,146	7	9	1,166
Jackman	12	3	9	122	4	5	155
Moose River	2	3	1	40	0	2	48
Seboomook Lake UT	0	0	0	162	21	3	186
N.E. Somerset UT	5	3	0	804	0	3	815
Impact Area	**53**	**53**	**29**	**3,752**	**33**	**56**	**3,976**
Piscataquis County	177	163	86	5,293	13	268	6,000
Somerset County	341	206	183	4,663	29	992	6,414
State of Maine	12,622	5,911	3,564	88,039	167	11,430	121,733

Source: Census

Between 1990 and 2000, the number of vacant houses (excluding seasonal housing) increased from 224 to 305. This indicates a softening of the housing market during this period, as there was more housing for rent or sale in 2000. This situation has changed in the past 5 years as housing prices have escalated. However, the dynamics of the market are shifting. As more housing becomes seasonal some second home buyers may choose to rent their properties to help pay the mortgage. This can translate into added pressure on the rental market, the availability of more rentals, and may be one reason that the number of units 'for rent' (ie currently vacant) increased from 53 in 1990 to 109 in 2000 despite an overall decrease in rental units. A lackluster economy also likely contributed to this increase in rentals during this period.

Age of Housing

The age of housing can often be an indicator of quality. In Greenville, nearly 38 percent of the housing is pre-1939, while in Jackman this figure is over 29 percent. Nearly 40 percent of the housing stock in Piscataquis County predates 1939. Table 2-12, below, shows the housing age for various periods and areas in the region.

Table 2-12: Age of Housing in 2000

Geography / Built	Before 1939	1940-1959	1960-1969	1970-1979	1980-1989	1990-2000	Median Year Built	
							All Housing (Occupied & Vacant)	Total Occupied Housing
Greenville	37.9%	14.1%	4.6%	19.5%	15.1%	8.7%	1966	1957
Greenville HM	34.3%	14.5%	6.2%	14.6%	16.3%	14.1%	-	-
Jackman	29.4%	11.6%	8.8%	18.0%	13.0%	19.2%	1970	1961
Piscataquis County	39.6%	9.9%	6.7%	16.0%	16.0%	11.8%	1966	1961

Somerset County	30.4%	12.8%	7.4%	16.7%	16.6%	16.2%	1969	1969
State of Maine	29.3%	14.5%	8.4%	16.8%	16.5%	14.5%	1966	1967

Source: U.S. Census, Percents Rounded

Type of Housing

The distribution of housing unit types is an important indicator of affordability, density and the character of the community. Housing units in structures are presented in the next table. The vast majority of units are in single unit configurations. Nearly 70% of housing occupancy within the Town of Greenville occurs within single unit buildings. A similar percentage could be expected for Jackman, while the unorganized territories are probably more similar to the county percentages, which are dominated by single family and mobile homes.

Table 2-13: Occupied Housing Unit Types in 2000

Subject	Greenville		Piscataquis County		Somerset County		Maine	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1-unit, detached	508	69.3%	5,550	76.3%	13,594	66.3%	335,598	64.8%
1-unit, attached	13	1.8%	58	0.8%	164	0.8%	11,704	2.3%
2 units	24	3.3%	174	2.4%	1,033	5.0%	32,456	6.3%
3 or 4 units	58	7.9%	356	4.9%	831	4.1%	33,693	6.5%
5 to 9 units	44	6.0%	127	1.7%	547	2.7%	23,937	4.6%
10 to 19 units	3	0.4%	14	0.2%	63	0.3%	9,252	1.8%
20 or more units	29	4.0	176	2.4%	198	1.0%	15,668	3.0%
Mobile home	54	7.4%	823	11.3%	4,054	19.8%	55,684	10.7%
Boat, RV, van, etc.	0	0.0%	0	0.0%	12	0.1%	208	0.0%
Total Occupied Housing Units	**733**	**100%**	**7,278**	**100%**	**20,496**	**100%**	**518,200**	**100%**

Source: Census, Percents Rounded

The Economy

The economy in the Housing Impact Area is flat, and in many respects declining. During the last 10-20 years there has been a significant decline in manufacturing and related jobs in the woods industry. Unemployment rates over this period have risen dramatically in response to major layoffs, and spiked regularly with the seasonal economy. Between 1990 and 2000 the Town of Greenville civilian labor force lost 167 workers, according to the US Census Bureau.

The Town of Jackman is considered part of the Skowhegan Labor Market Area (thereby obscuring the numbers for Jackman). Prior to 2003, the Town of Greenville was the service center for the Greenville Labor Market Area. The geography for labor market areas is determined by the amount of commuting that is contained within a given area, providing evidence that historically the Greenville area was able to sustain much of its resident's work

within the immediate area. A change was recognized in 2003, however, in response to an increasing percentage of workers commuting beyond the greater Greenville area for work, such that today the Town of Greenville and surrounding areas are considered part of the Dover-Foxcroft Labor Market Area.

The table below indicates the change in employment among key industry sectors between 1998 and 2002 for the Greenville Labor Market Labor Market Area. These numbers, although 3 years old, provide a better indication of employment opportunities existing within the Housing Impact Area for the reasons noted above. Unfortunately, many of the industry numbers for 2002 are "protected." This occurs where there is only 1 employer accounting for the industry number.

Table 2-14: Change in Employment, 1998-2002, Greenville Labor Market Area (LMA)

GREENVILLE LMA		
	1998	**2002**
Lumber and Wood	70	na
Construction	20	40
Wholesale Trade	40	na
Retail Trade	280	280
Accommodation and Food	190	180
Finance, Insurance, Real Est.	30	30
Health Services	120	na
Total Non-farm wage and salary	830	910

Source: Maine Statistical Handbook

The employment figures in the Table above illustrate the dominance of the tourism industries (accommodation and food) and health services. Collectively, these two industries account for nearly 37% of employment in 1998, and probably greater in 2002. Retail, another industry dependent upon tourism provided another 280 jobs in 2002.

Unemployment rates have generally exceeded the State average for the Greenville LMA and the Town of Jackman. Following is a Table showing the annual average civilian labor force and unemployment rate for the most recent 5 year period for which data is available.

Table 2-15: Civilian Employment, 1999-2004

Geography	Civilian Labor Force	Unemployed	
		Number	Percent
2004			
Greenville LMA	NA	NA	NA
Dover-Foxcroft LMA	9,130	640	7.0%
Skowhegan LMA	14,840	1,130	7.6%
Piscataquis County	7,270	510	6.9%
Somerset County	24,270	1,830	7.6%
State of Maine	699,000	32,000	4.6%
2003			
Greenville LMA	1,000	80	8.3%
Dover-Foxcroft LMA	9,530	760	7.9%
Skowhegan LMA	14,780	1,220	8.3%
Piscataquis County	7,580	600	7.9%
Somerset County	24,960	1,960	7.8%
State of Maine	694,300	34,700	5.0%
2002			
Greenville LMA	1,070	70	6.5%
Dover-Foxcroft LMA	9,600	760	7.9%
Skowhegan LMA	14,710	1,070	7.3%
Piscataquis County	7,580	530	7.0%
Somerset County	24,800	1,770	7.1%
State of Maine	684,700	30,200	4.4%
2001			
Greenville LMA	1,010	70	6.7%
Dover-Foxcroft LMA	9,960	580	5.8%
Skowhegan LMA	14,660	910	6.2%
Piscataquis County	7,910	460	5.8%
Somerset County	24,710	1,510	6.1%
State of Maine	676,300	26,300	3.9%
2000			
Greenville LMA	980	60	6.5%
Dover-Foxcroft LMA	9,960	520	5.2%
Skowhegan LMA	14,990	750	5.0%
Piscataquis County	7,940	430	5.4%
Somerset County	25,170	1,230	4.9%
State of Maine	674,400	23,200	3.4%
1999			
Greenville LMA	890	70	8.0%
Dover-Foxcroft LMA	7,310	510	6.9%
Skowhegan LMA	16,910	1240	7.3%
Piscataquis County	8,320	590	7.1%
Somerset County	25,960	1,920	7.4%
State of Maine	672,000	27,500	4.1%

Source: Maine Department of Labor

The Dover-Foxcroft (Labor Market Area) LMA includes Abbott, Atkinson, Beaver Cove, Blanchard unorganized, Bowerbank, Brownville, Cambridge, Dexter, Dover-Foxcroft, Greenville, Guilford, Lake View Plantation, Medford, Milo, Monson, Northwest Piscataquis unorganized, Parkman, Ripley, Sangerville, Sebec, Shirley, Southeast Piscataquis unorganized, and Willimantic. As noted above, prior to 2004 the Greenville LMA was a separate labor market area. In 2004, it was combined with the Dover-Foxcroft LMA, when this LMA was enlarged presumably because of changing employment/commuting patterns. (This change would support the assumption that workers from the Dover-Foxcroft area will commute to the Greenville area, and vice versa).

The former Greenville LMA was among the smallest in the State. Unemployment generally has been in the 60-80 person range, although underemployment was probably much greater.

Affordability

Measures of housing affordability are readily available for the Greenville Housing Market, and are described below. Other areas within the Housing Impact Area and nearby Jackman are combined with larger geographic areas (larger than the Impact or Rezoning Plan Areas), and thus are not readily applicable to this study. An estimated 416 households (42.4% of all Greenville Housing Market households) earn less than 80% of the median family income, according to the Maine State Housing Authority. See Table 2-16, below.

Table 2-16: Area Median Family Income
Adjusted for Household Size – Renter and Homeowner in 2004

Income Group	% of Median Family Income (up to)	Greenville Housing Market Households		
		Number	Percent of Households	Income (up to)
Extremely Low	30%	136	13.8%	$10,414
Very Low	50%	115	11.8%	$17,356
Low	80%	165	16.8%	$27,769
Median	100%	-	-	$34,712
Moderate	150%	293	29.8%	$52,068
Source: Claritas				

Table 2-17, below, provides figures for renter households in Piscataquis and Somerset Counties. In 2004, roughly half of all renter households could not afford the average rent, even though rent and utility costs were significantly lower than in Maine as a whole.

Table 2-17: Renter Households That Can't Afford Average 2-Bedroom Rent in 2004

Geography	Can't Afford	Households Can't Afford	Households Total	Rent (with utilities)	Income Needed
Piscataquis County	54.2%	819	1,510	$576	$23,022
Somerset County	49.4%	2,290	4,633	$574	$22,951
State of Maine	61.0%	93,078	152,551	$841	$33,639
Source: 2004 Claritas and MSHA Quarterly Rental Survey					

The Greenville Housing Market has an undersupply of 43 units for families needing rental housing, and an oversupply of 26 units for seniors. Housing need is defined as the difference between total subsidized or affordable housing units and Section 8 vouchers available, subtracted from the count of renters at 50% of the Household Area Median Income (AMI). For a complete breakdown of subsidized or affordable units and Section 8 vouchers used in this summary see Table 2-19.

Table 2-18: Rental Housing Needs for Households at 50% AMI

Greenville Housing Market 2004 Rental Housing Needs Summary	Families	Seniors (65 +)
Number of Renter Households @ 50% AMI	65	43
Number of Subsidized Units Available	22	69
Project Based	20	68
Non-Project Based (Section 8 Vouchers)	2	1
Number of Affordable Rental Units Needed	43	-26
Indicated Unmet Need %	66.0%	0.0%
Source: 2004 Claritas and HUD, MSHA, Rural Development and local housing authorities		

The United States Department of Housing and Urban Development (HUD) is the primary federal agency concerned with affordable housing. Rural Development (RD), formerly Farmers Home Administration (FmHA), part of the United States Department of Agriculture (USDA), also deals with affordable housing. The Maine State Housing Authority (MSHA) and Maine DECD are State resources for affordable housing. They administer the following: Rental Loan Program, Section 8, SHARP, supportive housing, vouchers, and single/multi-family rehabilitation, home purchase, and home down payment.

Subsidized units are built with state or federal monies for the express purpose of providing housing to lower income individuals and families. A housing project or development may consist entirely of subsidized units, or the project may have mixed uses. Subsidized units are typically available to individuals below certain income guidelines, and residents are expected to pay a fixed percentage of their income as rent. Table 2-19 provides an overview of subsidized housing for the Greenville Housing Market in 2004.

Table 2-19: Greenville Housing Market Subsidized Housing 2004

Type	Sponsor	Total	Total Rent Assisted	Family	Family Rent Assisted	Elderly	Elderly Rent Assisted	Disabled	Disabled Rent Assisted	Special Needs	Special Needs Rent Assisted	Market
Project Based	HUD/MSHA	40	40	20	20	20	20	0	0	0	0	0
	RD	64	48	0	0	64	48	0	0	0	0	16
	Total	104	88	20	20	84	68	0	0	0	0	16
Sec 8 Vouchers	MSHA	3	3	1	1	1	1	1	1	0	0	0
All	Total	107	91	21	21	85	69	1	1	0	0	16

Source: MSHA, 2004

Jackman, Moose River, Northeast Somerset UT, and Rockwood are part of the Skowhegan Housing Market. This housing market stretches all the way to Skowhegan, Madison, and Norridgewock, making the aggregated information not particularly useful to this study. Jackman, however, has a subsidized 16 unit property funded by Rural Development to serve the elderly market.

Homeownership Costs and Affordability

Table 2-20 shows the percentage of the median priced home that can be afforded by the median income households for various geographies within the Housing Impact Area. For example, a household in Greenville earning the median salary of $34,512 could afford a house that costs 111 percent of the median priced home. In Piscataquis and Somerset Counties, the median income earner can afford the median home sale price, and this is true in the Skowhegan Housing Market area as well, where the affordability index was 1.27 in 2003.

According to this approach, a household earning the median income can more than afford the median priced home. Within the State of Maine, the poorer 'Rim' communities generally show the most affordability, because housing prices are low enough to make them reasonably affordable to those with an income. However, many workers are forced to leave these areas due to a lack of income. Further, despite the relative affordability of homes in this region, many households earn employment income in industry sectors where the wages are generally below the median income. Thus, determining 'affordability' is ultimately a challenge of matching household incomes with available housing in the price range that allows a household to keep the cost of a mortgage (principle and interest) and taxes below 30% of their income.

Table 2-20: 2004 Housing Affordability

Geography	Index	Est. Median Income*	Home Price Median Income Can Afford	Actual Median Home Price	Annual Income Needed to Afford
Greenville	1.11	$34,512	$96,624	$87,000	$31,075
Greenville HM	1.04	$34,712	$101,379	$97,500	$33,384
Piscataquis County	1.29	$30,750	$89,476	$69,450	$23,868
Somerset County	1.24	$33,702	$97,694	$78,500	$27,080
Maine	0.73	$41,929	$122,310	$168,000	$57,592

Note: An Index of less than 1 is Unaffordable; an Index of more than 1 is Affordable.
*Estimated Median Income of those who earn an income, not the Median Household Income.
Source: MSHA

To provide another perspective on affordability, we looked at the ability of various industry wages to afford the median priced single-family home. This analysis has the advantage of showing how well local wages support home buying in the Housing Impact Area. This approach allows us to see affordability in direct comparison to wages, providing a good benchmark for "workforce housing," i.e., housing that is affordable to working people at various industry wages.

Table 2-22 shows wage earning employment by industry for the Dover-Foxcroft LMA. It also provides a good indication of the relative contribution each industry makes to wages. As expected, manufacturing is among the higher paying industries, while accommodation and food is among the lower paying.

Table 2-21: Industry Employment and Wages

Greenville* Labor Market Area	Covered Employment (2004)		Average Annual Wage (2004)
Goods-Producing			
Natural Resources & Mining	140	15.6%	$26,416
Construction	40	4.4%	$22,412
Manufacturing	*	-	$28,028
Service-Providing			
Trade, Transportation & Utilities	200	22.2%	$19,916
Information	*	-	$37,804
Financial Activities	30	3.3%	$22,100
Professional & Business Services	20	2.2%	$18,460
Education & Health Services	*	-	$20,488
Leisure & Hospitality			
Accommodation and Food	170	18.9%	$10,452
Other Services & Unclassified	50	5.6%	$16,484
Government			

Greenville* Labor Market Area	Covered Employment (2004)		Average Annual Wage (2004)
State Government	10	1.1%	$40,560
Local Government	110	12.2%	$25,844
Total (includes sectors not listed or quantified above)	900	100.0%	$23,036
Source: Maine Statistical Handbook (2004) Data Set: Table 3C - Average Annual Covered Employment by Labor Market Area, by Industry, 2004. *Covered employment is for the Greenville Labor Market area. Wages are for the entire Piscataquis County.			

Table 2-22 indicates each industry's ability to contribute towards a worker reaching housing affordability. A general rule is that a worker can afford a house costing 2.7 times his or her annual wage. The last two columns in Table 2-22 show how much house they could afford if there were 1 worker and 1.5 workers earning the industry wage. For example, 1 worker in the natural resources and mining industry earning the average industry wage of $26,416 could afford a house costing $71,323. A household with 1.5 workers in the natural resources and mining industry could afford a house costing $106,985. In 2004, the median house in the Greenville Housing Market cost $101,379.

The data in Table 2-22 shows that the majority of industries do not provide enough wages, on average, even with 1.5 workers to support a purchase of the median price home. Practically speaking, most households will have close to 2 workers and they may not be in the same industry. Affordability will ultimately depend upon the number of workers in the household, the wages (and industry) they work in, and the ability of the household workers to earn a premium over the average wage due to experience, skill, or some other factor.

Table 2-22 Industry Employment and Wages

Dover-Foxcroft Labor Market Area	Covered Employment (2004)		Average Annual Wage (2004)	2.7 times annual wage with 1 worker/ household - maximum affordable house price	2.7 times annual wage with 1.5 worker/ household - maximum affordable house price
Goods-Producing					
Natural Resources & Mining	140	15.6%	$26,416	$71,323	$106,985
Construction	40	4.4%	$22,412	$60,512	$90,769
Manufacturing	*	-	$28,028	$75,676	$113,513
Service-Providing					
Trade, Transportation & Utilities	200	22.2%	$19,916	$53,773	$80,660
Information	*	-	$37,804	$102,071	$153,106
Financial Activities	30	3.3%	$22,100	$59,670	$89,505

Professional & Business Services	20	2.2%	$18,460	$49,842	$74,763
Education & Health Services	*	-	$20,488	$55,318	$82,976
Leisure & Hospitality					
Accommodation and Food	170	18.9%	$10,452	$28,220	$42,331
Other Services & Unclassified	50	5.6%	$16,484	$44,507	$66,760
Government					
State Government	10	1.1%	$40,560	$109,512	$164,268
Local Government	110	12.2%	$25,844	$69,779	$104,668
Total (includes sectors not listed or quantified above)	900	100.0%	$23,036	$62,197	$93,296

Source: Maine Statistical Handbook (2004)
Data Set: Table 3C - Average Annual Covered Employment by Labor Market Area, by Industry, 2004. Covered employment is for the Greenville Labor Market area. Wages are for the entire Piscataquis County. The Dover-Foxcroft LMA (Labor Market Area) includes Abbott, Atkinson, Beaver Cove, Blanchard Unorganized, Bowerbank, Brownville, Cambridge, Dexter, Dover-Foxcroft, Greenville, Guilford, Lake View Plantation, Medford, Milo, Monson, Northwest Piscataquis Unorganized, Parkman, Ripley, Sangerville, Sebec, Shirley, Southeast Piscataquis Unorganized, and Willimantic.

Summary of Housing Inventory

The above information reflects conditions existing as of 2000, based on the US Census Bureau figures. These numbers are only as good as the Census. Greenville officials believe the Census significantly undercounted occupied and seasonal units. Notwithstanding these discrepancies, the following trends or issues are identified:

- Population is declining in the major service centers and growing outside these areas. Population grew 20 percent in the Unorganized Territories between 1990 and 2000, although the increase was only 152.
- Out-migration, presumably associated with a lack of jobs, accounted for a loss of 177 people in Greenville and 246 in Jackman over the past decade.
- Households vacated through out-migration are being replaced by seasonal residents.
- A decline in the number of people living in households is leading to more households than would be indicated by population alone.
- Recent housing trends, fueled by a strong second home market, would be expected to increase the pressure on the supply and availability of affordable housing. A large share of the housing stock that is located with amenities (views or water) is no longer affordable for the average working household.
- Overall, the supply of rental housing has declined from 456 to 429 in the region. While the service centers of Greenville and Jackman have experienced a decline of 62 units of rental housing, the balance of the area has generally gained, and shows an increase of 35 units, or 43 percent.
- Affordability issues are most pronounced among industry sectors paying less than $24,074. In these sectors, even 1.5 workers earning the average wage would not provide enough income to purchase the median priced home. These sectors include: construction, trade/transportation/utilities, financial activities, professional and business services, education and health, accommodation and food, and other services.

Collectively, these industries account for more than three-quarters of all employees in the Greenville LMA and are the likely industries to have job growth in the Plan Area.

2.3 Affordable Housing Description and Issues, Impacts and Solutions

Local Job Creation

The focus of this Report is on the effect the proposed Plan could have upon housing in the Housing Impact Area. The housing impact is determined by the jobs the Plan will create in the Housing Impact Area.

New jobs in the region will increase the need for housing and, specifically affordable housing, in the region. Following is an outline of key issues and factors effecting job creation. Following this is a discussion regarding how new jobs will effect housing needs.

1. Construction Jobs – Construction jobs will materialize in at least two ways. It is assumed that the residential market will absorb 75 units per year beginning in 2008. Actual building on these lots, however, is assumed to initially be 65 units per year, as some of the lots will be held for future development and/or speculation. It is assumed that, in 2013, residential construction will increase to 75 units per year, which will be sustained until 2021. Construction workers to build these houses will come from the existing construction industry in the region, commuters from nearby, and new entrants to the regional labor pool now able to find regular work in the area. For some workers, commutes will cease or be reduced. Some workers will find temporary housing in the area, competing for rentals and housing with local residents. Others will seek permanent housing.

   After construction, there will be homeowner demands to maintain and repair these residential units that will create additional job opportunities in the region. Insurers, specialty construction trades, landscaping, caretaking, snowplowing and numerous other jobs will be created as homeowners maintain, improve, and repair their homes. These ‘permanent’ workers will need housing in the area. It is assumed that most of these workers will not be purchasing lots from Plum Creek, but rather will seek more affordable alternatives.

   According to a recent study by the National Association of Home Builders, for every 100 single-family homes there are 350 jobs created for a year, 280 of which are local. This ‘local’ figure may be high for the Plan Area, given the somewhat limited construction company services infrastructure. This number is consistent with Dr. Charles Colgan’s estimate for construction job impacts for the year 2010, although the impact area used by Dr. Colgan in his Economic Impacts Analysis covers 4 counties – Penobscot, Piscataquis, Somerset, and Kennebec. However, for our purposes we have reduced the impacts projected by the NAHB to reflect the more limited construction and service infrastructure existing in the Housing Impact Area.

In addition, construction of commercial and recreational facilities will add to the demand for construction workers. These construction workers will also compete for affordable housing, but probably more specifically rental housing. This is because the commercial buildings will likely be constructed by a large commercial construction company. As such companies do not exist in the Plan Impact Area, it is assumed that these workers will commute to the area and/or seek temporary housing. Some construction workers will permanently locate in the area as the overall volume of activity increases and is perceived to be reaching a higher plateau of sustained activity.

The ability of the local construction industry to gear up for this new level of activity is not fully known. The Maine Department of Labor reported 40 construction workers employed in 2003 in the Greenville Labor Market Area. This number accounts for those working for wages, and working in businesses with at least one employee, as opposed to self employed workers. Given the preponderance of self-employment in this industry, however, Census figures may provide a more reliable figure for the size of this industry. In 2000, there were 68 construction workers in Greenville and 17 in Jackman. Within Piscataquis County there were 494 construction workers in 2000, according to the Census. Pro-rating these numbers over the entire Housing Impact Area population yields a total estimate of 100-150 construction workers living in the Housing Impact Area.

If current residential building and repair in the region is sustained at current (pre-Plan) levels, construction employees resident to the area could be fully employed. It is assumed, however, that the pace and scale of construction in the Housing Impact Area will decline absent the Plan consistent with national trends and projections, so that a percentage of the new construction jobs resulting from the rezoning Plan will be taken by existing residents who are under- or unemployed. Further, as noted earlier, the scale and schedule for the larger commercial buildings proposed in the Plan will likely require larger construction firms, which account for only a small portion of the construction employment in the Impact Area. It is assumed that some construction workers currently residing in the Impact Area will become employed by these larger firms.

2. Commercial and Industry - Permanent jobs will be created by the tourism, recreational, and industrial facilities proposed in the Plan. Recreational enhancements to hiking and snowmobile trails will attract more visitors to the region, creating more retail and service jobs, while drawing people to the area to purchase seasonal housing. Lodging services in the area will employ more workers. Finally, a sawmill or similar facility could provide employment for a projected 100 people. Dr. Colgan's estimates for tourism jobs in Penobscot and Somerset counties (Dr. Colgan report, March 2006, Table 10) were as follows: 52 jobs in 2007, 1,188 jobs in 2010, 1,117 in 2004, and 594 in 2020. These numbers were adjusted to arrive at an estimate of jobs that would be created within the Housing Impact Area. Straight line growth was assumed for the intervening years over which we estimated impacts.

3. Indirect - Additional impacts will occur in the regional housing market as a result of the indirect effects of the above activities. Thus, there will be changes (positive or negative) in regional economic activity resulting from the purchases of goods and services within the region by the 'direct' activity' (the activities of Plum Creek) called a 'multiplier effect' (see Colgan Report at page 13). Dr. Colgan, cautions that: a) multiplier effects are often small portions of employment that is involved in supporting and supplying the construction industry in the Plan Area. Thus, workers and suppliers 'commuting' into the Plan Area will support small portions of employment in the region they return to with their paychecks; b) construction jobs are normally highly seasonal in Maine, particularly in residential construction. In addition, large construction projects in areas such as the Moosehead Lake Region attract both local and commuter populations because of the seasonal nature of the work.

4. Valuation Increases and Future Affordability – The ultimate impact upon affordable housing will depend upon a number of factors, which we are no more able to predict than those debating over whether the housing 'boom' of the last few years will end with a whimper or a bust. On one hand, the supply of new housing might serve to reduce price pressures on existing homes and serve to moderate the market that now exists. Conversely, the supply of new housing may serve to accelerate housing prices in the region. This could lead to increased speculation on the value of the existing housing and in-town lots, as the market presumes that land prices will accelerate. Conversely, nationally, there are concerns that portions of the second home market may be overbuilt (and that owners are seeking rents to help support the mortgages that aren't sustainable). Analysis about the likelihood of such events is beyond the scope of this study.

The impact upon affordable housing from these activities depends upon a number of factors. Key, however, is the extent to which new jobs created in the area are filled by new residents to the area whom in turn seek housing. Given unemployment rates, the lack of good paying year-round jobs, and other factors, it can be expected that local residents will take a number of these jobs. At the same time, resorts often bring in top managers; much of the manpower and expertise to operate a mill does not exist in the Greenville area anymore (according to current mill operators); and the lodging operator(s) are likely to need more people than are currently available in the region. All these activities will bring new residents to the area and impact access to affordable housing.

Housing Formation

To assess the impact of Plum Creek's Plan on housing related activities it is necessary to estimate the net new jobs locating to the area, and then develop an estimate of housing formation resulting from these jobs. While the projections provided by Dr. Colgan are illustrative in terms of understanding job creation resulting from the Plan, they do not provide for specific impacts in the Housing Impact Area. Accordingly, an alternative analysis is provided below.

The assumptions used below are drawn from Dr. Colgan's *Economic Impact Analysis*, as well as from the National Association of Home Builders, and from a basic knowledge about the size, nature, and excess capacity of the local economy, particularly the availability of the local population to take new jobs and commute.

Many of these assumptions could be modified to reflect a range of probable effects, such as a lesser or greater number of commuters to fill jobs (and more recently the impact of fuel on the costs of commuting), a higher or lower percentage of local people filling temporary (large commercial) construction jobs, or a higher or lower job impact from the construction of residential housing. Such modifications could also take into account the growing interest in manufactured housing, and the possibility that this type of housing may account for an increasingly larger portion of new residential construction, effectively reducing the number of construction jobs. Thus, for example, if we assumed that one-third of the new housing will be manufactured, employment impacts from residential construction would be reduced by slightly less than one-third, recognizing that the installation and assembly of manufactured housing will require some construction labor, albeit significantly less than stick built housing.

It may be desirable to consider "low" and "high" impact scenarios using liberal to conservative assumptions, and then develop a "likely" scenario. This information would allow planners to anticipate a range of impacts. At this point, in the absence of developing various scenarios, we encourage the reader to take into account the fact that these assumptions are fungible and thus, so are the resulting estimated impacts.

Table 2-23, Estimating Job Impacts, provides a methodology to:

- First, estimate job creation impacts (both temporary and permanent) from the four primary Rezoning Plan economic activities;
- Second, reduce these job impacts by: a) accounting for people already living in the Impact Area (and therefore not needing, or adding to, the affordable housing challenge), and b) people commuting into the Impact Area for jobs; and
- Third, arrive at a yearly average for the number of new jobs created.

Table 2-23, Estimating Job Impacts, and Assumptions for Table 2-23, Estimating Job Impacts, are at the end of this chapter.

Based on Table 2-23, a total of 629 net new jobs are estimated to result from the Plan in the Plan Area. This figure represents an average for the 14 years over which the Plan impacts are estimated. Assuming an estimated 1.7 workers per household, the proposed development could lead to the development of an additional 370 households. These households are in addition to the 975 built as a result of Plum Creek's proposal. In short, these 370 households are due to the ability of new jobs in the Impact Area to attract new households to the area.

The income provided by a number of these jobs will not support a household's ability to buy housing. It is difficult to use average wages, the most common measure available to us, to determine housing affordability. Also, the ability of a household to afford housing varies by the type of industry the homeowner(s) are employed in, the wages they pay, and the number of

workers per household. However, based on the history of wages in the major industries affected by this project, we estimate that up to 76% of the households will not be able to afford housing – based on paying 30% or less of their household wages for housing**.** Table 2-24, below, provides an estimate of the type of jobs to be created and their associated yearly and hourly earnings. Table 2-24 also estimates the maximum housing price affordable when 1.5 workers from the same industry are in a household. These are average wage figures. Each industry will employ workers at higher salaries than the average (and lower). A major unknown is the extent to which new jobs in the area will pay above the 'average'. Thus, for example, a high tech mill may employ more workers at a higher wage, and a high end tourism resort might also support higher than average wages.

A total projected impact of 370 households yields an initial estimate, therefore, of 281 units (370 x .76) of affordable housing that may be needed over the term of the rezoning Plan.

Table 2-24: Industry Wages and Housing Affordability

	Average Annual Wage 2004 - Dover Foxcroft LMA (#)	**Annual Hourly Wage Assuming 2000 hours/year (#)**	**Maximum monthly Housing Cost - 1 wage earner at 30% of Income (#)**	**Maximum monthly Housing Cost - 1.5 wage earner at 30% of Income (#)**	**Maximum Affordable Housing Price with 1 Worker (#)**	**Maximum Affordable Housing Price with 1.5 Worker (#)**
Construction (93)	22,412	11.21	560.3	840	60,512.4	90,768.6
Manufacturing (46)	28,028	14.01	700.7	1,051	75,675.6	113,513.4
Leisure and Hospitality* (177)	15548	7.77	388.7	583	41,979.6	62,969.4
Accommodation and Food (213)	10452	5.23	261.3	392	28,220.4	42,330.6

*assumes Knox County average annual wage

These households will need assistance to find affordable or workforce housing. Some jobs, on the other hand, will support market rate housing, and should not place any burden on the region's ability to generate affordable housing. However, these households will impact other aspects of the community, including solid waste, schools, and other services inherent with new housing formation.

For purposes of this study, an adjusted projection of 160 units of affordable housing is estimated, including both homeownership and rentals. This estimate includes resort employee housing, which the Plum Creek Plan indicates will be provided on the resort sites. This seems reasonable, given that the assumptions used do not account for such moderating influences as:

- The likelihood that manufacturing housing will reduce the overall demand for construction workers. This could result in a reduction of 20-30 jobs, assuming that 1/3 of the housing was manufactured off-site.
- The 2000 Census found 312 vacant units in the impact area. Based on discussions, we believe this inventory of vacant housing has been reduced over the past 6 years. Nevertheless, there is likely to be a pool of housing that, due to

poor economic conditions, would in large part be available for affordable housing. Housing rehabilitation funds may be needed to support occupancy in situations where the quality is poor, but this is a relatively low cost affordable housing strategy.

- A portion of the housing units built on Plum Creek land as part of the 975 residential Rezoning Plan will bring residents to the area, including students and others, who may enjoy seasonal work and who would not seek permanent housing. These workers would reduce the demand for affordable housing, and would be a ready source of labor for the tourism industry.
- Dr. Colgan's estimate of tourism jobs does not distinguish between part and full-time jobs. In many cases, one worker will fill several tourism jobs. Thus, we can reduce the impact of tourism jobs upon the affordable housing market to account for this.

Summary of Impacts

Access to affordable housing is likely to diminish where there is pressure on the housing stock as a result of tourism or seasonal home buyers. Such buyers are not constrained by local wages, and thus are able to drive the price of housing up based on their perception of value and experiences (often) formed in more urban markets where prices are significantly greater than prices found in the Housing Impact Area. This trend has become exacerbated over the past several years as the value of waterfront homes grew dramatically, and the price of inland homes moved in a similar direction, but not as much.

A slow and declining economy has resulted in out migration of the population, resulting in a 10% decrease in the Housing Impact Area between 1990 and 2000. The Plum Creek Plan would reverse this decline, bringing an estimated 629 jobs per year to the Housing Impact Area, on average, over the period from 2008 to 2021. These jobs are expected to be apportioned among residential construction (93) and induced effects, industrial (46), the large resort (91), the small resort (44), and recreation and tourism jobs (347). The balance of jobs (8) is due to temporary construction jobs. Additional jobs may be disbursed to neighboring areas and larger service centers (i.e. Bangor, Skowhegan, etc) where there are more services and workers.

Since job creation will fuel new home demand, the estimates of the number of new, local workers were developed after subtracting jobs anticipated to be taken by existing residents and commuters. Overall, between 2008 and 2021 we project an average of 122 jobs to be filled by existing residents. According to the 2000 Census there were 1795 workers age 16 and over in the labor force in the Housing Impact Area, so this figure assumes that approximately 7 percent of the existing labor force will become employed as a result of this Plan. This figure would theoretically exhaust the ranks of the unemployed, but practically speaking, much of this employment would be among the underemployed, although this is a difficult number to estimate. An additional 304 jobs are projected to be filled by commuters. It may also be assumed that some of these commuters already own housing in the area, realistically reducing the number of commuters needing to travel daily to the Plan Area. We are familiar, for example, with a number of contractors who have second homes in the Greenville area and thus, will not need housing.

Additionally:

1. The growth in households is positive for the region, providing jobs and income and helping to diversify the economy.
2. Population growth among various age cohorts will serve to create a diverse community and mitigate the trend to an aging demographic.
3. Construction jobs will bring temporary workers and the need for rental housing.
4. Growth in jobs will increase demand for housing, yet many jobs will not pay a wage sufficient to attain market rate housing.
5. Tourism/recreation areas tend to create a demand for housing that quickly outpaces the ability of the local wage and salary structure to provide wages that allow a family to keep housing costs (principal, mortgage, insurance and taxes) below 30% of household income. 'Permanent' affordability mechanisms are needed to address this over time and ensure a sustainable solution. One principal mitigating factor is the Plan's proposed on-site resort employee housing.
6. A demand for 160 affordable housing units is anticipated. This demand will occur over the project's life span. To anticipate an increase (or decrease) of this number, we suggest that local planners provide interim reviews to assess affordable housing demand. For example, before the resorts are built, it would be useful to look at the current housing market as a baseline, and assess impacts to the housing market as the Plan is implemented.
7. The Maine State Housing Authority estimated a need for 43 units for affordable family housing for the Greenville Housing Market Area. The actual need for the Housing Impact Area is indeed larger than this, as the Greenville Housing Market Area covers only a portion of the Plan Area. This demand is over and above the 160 units we are projecting due to the Plum Creek Rezoning Plan.

2.4 Suggested Solutions and Mitigation Strategies

Below are suggested solutions and mitigation strategies for local governing bodies to consider in response to implementation of the Plum Creek Plan:

1. Establish a regional workforce housing organization that can develop local solutions and mechanisms, while educating the public on the role and importance of 'workforce housing' and providing a local voice. Workforce and affordable housing initiatives/projects tend to generate a range of emotions and controversy within and among communities. Early education and support (financial and staff) as well as sensitivity to local issues and concerns are crucial to an effective response. Forming a local housing trust or development organization represents a good first start. Various non-profit organizations are available to assist, and there are useful models to learn from in Camden, Mount Desert Island, and various other places.
2. Concentrate workforce and affordable housing in 'service center' communities (i.e. Jackman and Greenville). We understand the Plum Creek Rezoning Plan will seek to have resort owners provide on-site housing for their workers. This might conceivably address 50-70 units of affordable housing out of the 160 estimate.

3. Develop a range of housing solutions to address various economic situations, lifestyle choices, and community character, including: cooperative housing, subsidized housing, market rate housing, housing trusts, and mobilizing resources to retain existing affordable housing.
4. Develop temporary locations for trailers designated for transient workers, particularly in the construction trades. These units could be released to the general public over time. Care should be taken to not crowd out the tourist at local campground/RV locations during the construction phase when transient workers are seeking local, and temporary, housing.
5. Consider strategies to help support the development of workforce housing. Plum Creek's proposed donation of up to 100 acres of land for affordable housing, and the resort zones' on-site employee housing will support a significant amount of housing development, but other resources are needed to develop full capacity and pursue a variety of solutions.
6. Consider mechanisms to help support the regional service centers, primarily Greenville and Jackman, so that they do not face increased municipal costs as a result of housing development outside of their boundaries. The Greenville Town Manager's strategy to create a regional tax sharing mechanism to capture a portion of the property tax from new housing development in outlying areas may represent such a mechanism.
7. Utilize community housing trust model to preserve housing affordability. This model restricts the appreciation of land value as a means to ensure that housing, sold with these conditions, will remain affordable for future generations. This is important in tourism/recreation economies, as the housing market will likely trend towards becoming less affordable for workers making their living in tourism and recreation jobs.

Table 2-23 - Estimating Job Impacts																
Residential Construction Impact																
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total 08-21	Yearly Average
Units constructed (market rate)	65	65	65	65	65	75	75	75	75	75	75	75	75	50	975	
Units constructed (affordable)			15	30	15	20	20	30	15	15					160	
Total Units Constructed	65	65	80	95	80	95	95	105	90	90	75	75	75	50	1135	
Construction Jobs	91	91	112	133	112	133	133	147	126	126	105	105	105	70		
Induced Jobs - Ripple Effect	20.8	20.8	25.6	30.4	25.6	30.4	30.4	33.6	28.8	28.8	24	24	24	16		
Ongoing Annual Effect -Occupied Units	18.2	18.2	22.4	26.6	22.4	26.6	26.6	29.4	25.2	25.2	21	21	21	14		
Less Jobs:																
(Filled Locally)	25	25	25	25	25	25	25	25	25	25	25	25	25	25		
(Filled by Commuters)	33	33	43.5	54	43.5	54	54	61	50.5	50.5	40	40	40	22.5		
Net Jobs New to Region	**72**	**72**	**91.5**	**111**	**91.5**	**111**	**111**	**124**	**104.5**	**104.5**	**85**	**85**	**85**	**52.5**		**92.89286**
Industrial Development Impact																
Jobs Created							100	100	100	100	100	100	100	100		
Less Jobs:																
(Filled Locally)							25	25	25	25	25	25	25	25		
(Filled by Commuters)							25	25	25	25	25	25	25	25		
Total New Workers Entering Region							50	50	50	50	50	50	50	50		
Temporary Construction Jobs						50										
Induced Jobs from Industrial							25	25	25	25	25	25	25	25		
Net Jobs from Industrial	**0**	**0**	**0**	**0**	**0**	**50**	**75**	**75**	**75**	**75**	**75**	**75**	**75**	**75**		**46.42857**
Resort Development																
Big Moose Mountain Jobs																
Temporary Construction Jobs			150													
Permanent Hotel, Service, and Mgmt Jobs				245	245	245	245	245	245	245	245	245	245	245		
Less Jobs:																
(Filled Locally)				25	25	25	25	25	25	25	25	25	25	25		
(Filled by Commuters)				125	125	100	100	100	100	100	100	100	100	100		
Net Jobs New to Region	**0**	**0**	**0**	**95**	**95**	**120**	**120**	**120**	**120**	**120**	**120**	**120**	**120**	**120**		**90.71429**
Lily Bay																
Temporary Construction Jobs								75								
Permanent Hotel, Service, and Mgmt Jobs								150	150	150	150	150	150	150		
Less Jobs:																
(Filled Locally)								20	20	20	20	20	20	20		
(Filled by Commuters)								50	50	40	40	40	40	40		
Net Jobs New to Region	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**80**	**80**	**90**	**90**	**90**	**90**	**90**		**43.57143**

Tourism and Recreation Development																
Tourism and Recreation Jobs	258	485	712	702	691	681	670	616	564	512	460	408	356	355		
Less Jobs:																
(Filled Locally)	25.8	48.5	71.2	70.2	69.1	68.1	67	61.6	56.4	51.2	46	40.8	35.6	35.5		
(Filled by Commuters)	64.5	121.25	178	175.5	172.75	170.25	167.5	154	141	128	115	102	89	88.75		
Net Jobs New to Region	**167.7**	**315.25**	**462.8**	**456.3**	**449.15**	**442.65**	**435.5**	**400.4**	**366.6**	**332.8**	**299**	**265.2**	**231.4**	**230.75**		**346.8214**
Total Jobs Created	388	615	1022	1137	1096	1166	1230	1421	1264	1212	1130	1078	1026	975		1054.2857
Less: Total Jobs Filled Locally	50.8	73.5	96.2	120.2	119.1	118.1	142	156.6	151.4	146.2	141	135.8	130.6	130.5		122.28571
: Total Commuter Jobs	97.5	154.25	221.5	354.5	341.25	369.25	346.5	457.5	366.5	343.5	320	307	294	276.25		303.53571
Net new Jobs to Region	**239.7**	**387.25**	**704.3**	**662.3**	**635.65**	**683.65**	**741.5**	**814.4**	**746.1**	**722.3**	**669**	**635.2**	**601.4**	**568.25**		**629.3571**

Assumptions for Table I, Estimating Job Impacts

1. no data
2. no data
3. Assume 125 housing lots sold per year, beginning in 2008. Actual lots that proceed into construction is initially 65. After 5 years, the level of construction increases to 75/year, as the inventory of lots sold increases.
4. Affordable housing is based on projected growth in workers who are not able to afford market rate housing, and need some form of 'subsidy' or support.
5. Sum of #3 and #4
6. Construction jobs are based on report prepared by the National Association of Home Builders, 'The Local Impact of Home Building in a Typical Metropolitan Area'. The NAHB estimate of 184 jobs/100 homes built was reduced to 140 jobs for the initial Phase I Impacts (which includes direct and indirect impact of the construction). A small region such as the Plan Area would likely not capture all the impacts typically associated with housing development. Thus, for example, jobs in wholesale, retail, business and professional services, and other incidental areas would more likely accrue to the regional service centers in Dover Foxcroft, Skowhegan, and Bangor.
7. An additional 32 jobs are anticipated from the induced effect of the spending in Phase I Impacts. These jobs are due to the impact of local residents who earn money from the construction activity spending part of it within the local area. NAHB estimates this impact to be 100 jobs in a typical metro area, and again we have reduced due to the large number of induced jobs that would more likely be created outside the Plan Area.
8. The ongoing annual effect from new housing will create, according to the NAHB, an additional 63 jobs per year for every 100 residential homes constructed. This number was reduced to 28 per 100 homes for the Plan Area due to the large areas small economic size and the degree to which residents are likely to travel to neighboring areas for many services.
9. NA
10. A portion of the jobs are likely to be filled locally by existing residents, and therefore not impact the area with new residents, housing, and other services. We assume this number to be fairly modest in the construction industry, since most workers are probably already fully employed due to the level of current activity. This level is assumed to continue, and not be effected by the supply of new housing resulting from the Plum Creek proposal.
11. Commuters will fill a portion of the construction jobs. This is a typical pattern in Maine, with construction workers often commuting long distances for work. This figure is somewhat moderated by the stability offered by the Plum Creek proposal in terms of a set amount of lots made available for sale. The distance of the area from other labor market areas, however, means that many of the 'nearby' commuters (within 35-50 miles) can just as easily commute to bigger labor markets in Bangor, Skowhegan, etc.
12. Total Net New Jobs is the figure that is derived after the construction jobs, induced effects, and ongoing effects are added together, and from this is subtracted jobs filled by residents already in the area and by commuters.
13. na
14. na
15. na
16. A figure of 100 was assumed for employment in a new lumber mill in the year 2013.
17. na
18. From the impact of the 100 jobs we subtract 25 jobs that will be filled locally.
19. From the impact of the 100 jobs we subtract 25 jobs that are filled by commuters into the area, who will not directly impact local housing, solid waste, or other 'local' services.
20. This is the balance of jobs that will result to new residents of the area after commuters and local residents are subtracted from the total anticipated jobs created by the lumber mill.

21. # of temporary construction jobs.
22. this is number of induced jobs resulting from the 50 new employees coming into the region to work at the mill, and live locally. The multiplier is significantly reduced from the Colgan estimate, because of objective to isolate induced effect upon Plan Area, as opposed to the two county area that resulted in the Colgan multiplier.
23. Sum of direct and indirect jobs resulting from the mill impacting the Plan Area.
24. na
25. na
26. na
27. na
28. construction jobs to build Big Moose. Assumes over 1 year
29. total estimated jobs created at Big Moose Mountain
30. na
31. jobs filled locally at Big Moose Mountain (25)
32. jobs filled by commuters working at Big Moose Mountain (100 to 125). This number decreases as workers relocate and settle in the region.
33. Balance of workers that will be new to the Plan Area, after local and commuter jobs are subtracted from the total anticipated employment.
34. na
35. na
36. construction jobs at Lily Bay Resort.
37. total estimated jobs created at Lily Bay Resort
38. na
39. number of jobs filled locally that will work at Lily Bay Resort (20)
40. jobs filled by commuters working at Lily Bay Resort (40 to 50)
41. Balance of workers that will be new to the Plan Area, after local and commuter jobs are subtracted from the total anticipated employment.
42. na
43. na
44. tourism and recreation jobs estimated from Colgan study, Table 15. Colgan estimated 117 jobs in 2010, 645 jobs in 2015, and 259 jobs in 2020. We assumed straight line growth in the intervening years to complete a yearly estimate of tourism and recreation jobs for the period 2010 through 2021.
45. na
46. number of jobs filled locally, based on 10% of total created (.1x#44)
47. jobs filled by commuters working in tourism and recreation, based on 15% of total created (.15x#44)
48. Balance of workers that will be new to the Plan Area, after local and commuter jobs are subtracted from the total anticipated employment
49. na
50. Total jobs that will be created within the Plan Area by year
51. Total jobs that will be filled by local citizens within the Plan Area by year
52. Total jobs filled by commuters within the Plan Area by year. It is assumed that 90% of all temporary construction jobs are filled by commuters.
53. Estimate of net new jobs to the area.

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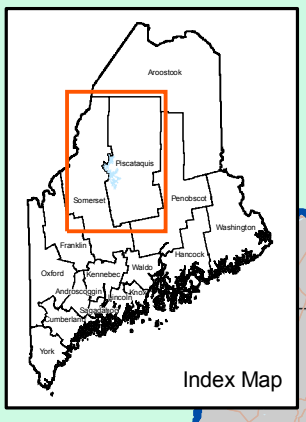
Data Source: U.S. Census Bureau, Census 2000
Data Set: Census 2000 Summary File 1 (SF1) - 100 Percent Data
Table H1: Housing Units
Geographic Type: Blocks



Index Map

HOUSING UNITS PER SQUARE MILE

* See note						
0	10	25	50	100	250	250+

* Blocks with densities of less than 10 housing units/sq mile are shaded in white or grey (in unorganized territories).

Plum Creek Land Subject to Resource Plan

Townships under LURC Jurisdiction

AROOSTOOK COUNTY
SOMERSET COUNTY
PISCATAQUIS COUNTY
PENOBSCOT COUNTY
FRANKLIN COUNTY
BAXTER STATE PARK
Moosehead Lake
MOOSE RIVER
JACKMAN
GREENVILLE
BROWNVILLE
SHIRLEY
MONSON
WILLIMANTIC
BOWERBANK
MEDFORD
SEBEC
MILO
DOVER-FOXCROFT
GUILFORD
ABBOT
ATKINSON
SANGERVILLE
PARKMAN
CARATUNK
MOSCOW
WELLINGTON
BRIGHTON PLT
BINGHAM
ATHENS
HARMONY
RIPLEY
201
6
15
11
150
153
16
7
23
151
152
154

IMPACT ANALYSIS FOR PLUM CREEK REZONING PROPOSAL

FIGURE HO-1: HOUSING DENSITY (2000)

0 2.5 5 10 Miles

Sources: MEDOT, MEGIS and Census 2000
Map revised: February, 2006

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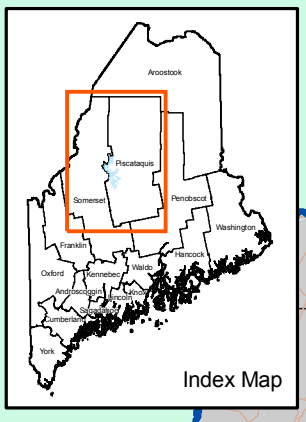
Data Source: U.S. Census Bureau, Census 2000
Geographic Type: Blocks



Index Map

PERSONS PER SQUARE MILE

** Blocks with densities of less than 10 housing units/sq mile are shaded in white or light grey (in unorganized territories).*

Plum Creek Land Subject to Resource Plan

Townships under LURC Jurisdiction

Data is for year-round population.

AROOSTOOK COUNTY
SOMERSET COUNTY
PISCATAQUIS COUNTY
PENOBSCOT COUNTY
FRANKLIN COUNTY
BAXTER STATE PARK
Moosehead Lake
MOOSE RIVER
JACKMAN
GREENVILLE
SHIRLEY
MONSON
WILLIMANTIC
BOWERBANK
BROWNVILLE
MEDFORD
SEBEC
MILO
DOVER-FOXCROFT
GUILFORD
ABBOT
ATKINSON
SANGERVILLE
PARKMAN
WELLINGTON
MOSCOW
CARATUNK
BRIGHTON PLT
BINGHAM
ATHENS
HARMONY
RIPLEY
201
6
15
16
150
151
152
153
154
7
11
23

IMPACT ANALYSIS FOR PLUM CREEK REZONING PROPOSAL

FIGURE HO-2: POPULATION DENSITY (2000)

0 2.5 5 10 Miles

Sources: MEDOT, MEGIS and Census 2000
Map revised: May, 2006

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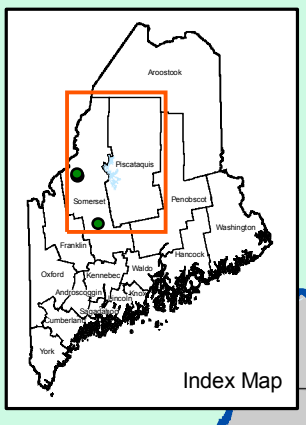

Index Map

AROOSTOOK COUNTY

SOMERSET COUNTY

PISCATAQUIS COUNTY

PENOBSCOT COUNTY

FRANKLIN COUNTY

NUMBER OF EMPLOYEES

500 - 999

100 - 249

250 - 499

50 - 99

Plum Creek Land Subject to Resource Plan

Townships under LURC Jurisdiction

Employer information is provided by Tower Publishing Co. (www.towerpub.com). Point locations, which are for general reference only, were geo-coded using E-911 and MDOT roads. Some modifications were made by the Eastern Maine Development Corporation (EMDC).

BAXTER STATE PARK

MOOSE RIVER

JACKMAN

Moosehead Lake

GREENVILLE

BROWNVILLE

SHIRLEY

MONSON

WILLIMANTIC

BOWERBANK

MEDFORD

SEBEC

MILO

DOVER-FOXCROFT

GUILFORD

ABBOT

ATKINSON

CARATUNK

MOSCOW

SANGERVILLE

PARKMAN

WELLINGTON

BRIGHTON PLT

BINGHAM

ATHENS

HARMONY

RIPLEY

201 6 15 16 150 151 152 153 154 23 7 11

IMPACT ANALYSIS FOR PLUM CREEK REZONING PROPOSAL

FIGURE HO-3: MAJOR EMPLOYERS

0 2.5 5 10 Miles

Sources: MEDOT, MEGIS and Tower Publishing
Map revised: February, 2006

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3.0 Tourism

3.1 Overview

Summary of Tourism Components of the Plum Creek Plan

Plum Creek has proposed a Plan to the Land Use Regulation Commission amid a time of realignment within State and local governments regarding the way in which Maine plans and values its natural resource base in relation to tourism product development and marketing.

The Plum Creek proposal contains placeholders for two resort zones.

- Big Moose Mountain Resort/Recreation Zone (2,600 acres within the Greenville/Rockwood corridor)
- The Resort at Lily Bay (500 acres within the Greenville/Lily Bay corridor).

Both resort zones have been strategically located near existing infrastructure and close to the service center of Greenville with the effect of improving the community economy by anchoring the community on both sides with two "economic drivers".

Four permanent, public trail easements will be conveyed by Plum Creek upon Plan approval. These trails will also support and supplement the resorts. The first covers more than 67 miles of hiking trail easements, including a 55-mile long peak-to-peak trail easement around two-thirds of Moosehead Lake. The second is a 12-mile trail which is part of the Moosehead to Mahoosucs trail, connecting the peak-to-peak trail and the Appalachian Trail. A third is a permanent trail easement for 71.3 miles of ITS snowmobile trail which will link the Moose River region through Greenville to the greater Baxter Park area. All of these easements will be conveyed to the Maine Bureau of Parks and Lands or an approved 501(c) (3) organization. The fourth trail is the 50-kilometer trail to be built at the Big Moose resort, designed for Nordic skiing and biking.

Tourism Climate in Maine 2005-06

State View of Natural Resource Industry Indicators

Following the Governor's Blaine House Conference on Natural Resource-based Industries in 2003, a steering committee was formed by the Governor to develop a set of indicators by which the health of each resource-based industry could be evaluated. The Report was delivered in November of 2004, called "Indicators of Health for Maine's Natural Resource-based Industries 2004."

The Report's Executive Summary offers this synopsis of the Tourism/Recreation portion of the study:

- The number of overnight marketable trips has been stagnant for the last four years, a concern because while these trips represent only 20 percent of total trips, they generate over 50% of tourist spending.

- "If the number of marketable trips were to increase, that would be a good indication of growing tourist activity …Overnight visitors spend three times more than day-trippers."
- There is a direct correlation between investment by the Office of Tourism in marketing Maine and overall tourism activity.
- Visitors come to Maine primarily to enjoy the outdoors. Of those making overnight trips to Maine, 48 percent come for general touring and 26 percent come for outdoor activities.
- The numbers of hunting and fishing licenses issued to both residents and non-residents has been stable for a quarter of a century.
- Tourism spending supports an estimated 58,160 jobs in Maine, over 9 percent of all Maine jobs." [6]

A second outcome of the Blaine House Conference was a study by FERMATA, Inc., a tourism consulting firm. The study identified three pilot regions of Maine and proposed new ways to utilize the resource base to strengthen the economy through the development of a new niche tourism product which could be directed toward a new and growing market. The FERMATA study made the following key findings:

- *There is a new "experiential" tourism market consisting of visitors interested in learning about nature, culture and history.*
- *76 percent of U.S. travelers state that they "would like to visit someplace they have never visited before."*
- *48 percent are interested in a destination that is "remote and untouched."*
- *57 percent are attracted by an area's "culture."*
- *44 percent would like to "learn a new skill or engage in a new activity" during their trip.*
- *81 percent of U.S. adults, or 118 million, who traveled in the past year are considered historic/cultural travelers. These travelers included historical or cultural activities on almost 217 million person-trips, up 13% from 1996.*[7]
- *Experiential visitors prefer "active, authentic, participatory experiences that they can have a hand in structuring."*[8]
- *Experiential visitors value individuality, merit, diversity, and openness.*
- *Experiential visitors expect and desire authentic, indigenous, home-grown, native, original, genuine, sustainable, and specialized experiences and products.*

FERMATA's research included results from five national surveys that identified characteristics of the average nature/experiential tourist [9]. (Table 3.1)

Table 3-1 Profile of Nature/Experiential Tourist

Age	52.1 years.
Gender	48.3% male; 51.7% female

[6] Maine's Natural Resource-based Industries 2004, Indicators of Health, P.9.
[7] Travel Industry of America, 2003
[8] The Rise of the Creative Class, Richard Florida, 2002
[9] Fermata PowerPoint, MNBI, 2005

Income	$61,982
Household size	2.45 persons
Education	16.36 years
Frequency of trips	10.36 trips per year; 3.31 days per trip; 2.38 nights per trip
Origin	28.9% urban; 47.6% suburban; 4.3% rural (farm); 19.1% rural (non-farm)
Distance from Home	6 hours or less drive – one way

FERMATA's research indicates that there are five major activities that "experiential" tourists would like to experience while they are on vacation or retreat:

1. to enjoy the sights, sounds, smells of nature;
2. to be outdoors;
3. to see wildlife they have not seen before;
4. to get away from the demands of life; and
5. to enjoy family recreation;

In his keynote address to the first U.S. National Conference on Ecotourism in September 2005 in Bar Harbor, Maine, Costas Christ, the Executive Director of the Bar Harbor Chamber of Commerce and Director of the International Ecotourism Society asserted,

> "In mapping global (tourism) patterns, what we discovered was revealing. Tourism is expanding most rapidly in and around the world's remaining natural areas. This coincides with other studies showing that nature and adventure travel have been the fastest growing segments of the tourism industry. . . It is worth noting that in a recent survey conducted by the Travel Industry Association of America, all of the top 10 destinations selected by US travelers represented outdoor experiences, with 8 out of the 10 being natural environments. Tourism's demand for nature and adventure travel is high."[10]

Mr. Christ further discussed the changing tourism demographics "led by the so-called Baby Boomers," stating,

> "More and more people want to connect to the natural environment when they travel. They want to be enriched by cultural experiences. They want authenticity, and they want to enjoy a great tourism product that also rejuvenates them, meaning excellent food, good accommodations, and meaningful activities. So significant is this changing demographic that *Newsweek Magazine* devoted a cover story to the topic in April for the first time, declaring that travelers now want to engage in the world, not just see it."[11]

[10] Christ, Costas, First National Conference on Ecotourism, Bar Harbor, ME, September 14-16, 2005 p 2-3
[11] Christ, Costas, p. 3.

All recent research agrees on the changing consumer demands and patterns of behavior. The land owned by Plum Creek in the greater Moosehead-Jackman region has the potential to help meet the new visitor demand and bring about a needed economic stimulus in a remote region in need of change and re-invention.

Piscataquis County Nature Tourism Pilot Project Initiative

As the result of the FERMATA study, a pilot project area was designated in Piscataquis County to begin implementation of recommendations proposed in the study. At the end of 2004, Piscataquis County Economic Development Council directed the Piscataquis County Tourism Task Force (PTTF) to examine the recent tourism studies in the County, and to craft a county tourism implementation plan including key recommendations from the FERMATA Nature Tourism Assessment and Strategy.

Research findings also prompted this Maine county initiative, particularly the "EMDC-LDR Tourism Study" (2000), and the University of Maine's "Piscataquis Tourism Attitudes Research Project" (2004), which studies state:

1. *"The region has an abundance of natural resources to support tourism; however, the region does not have an abundance of developed tourism products.... There have been studies and recommended projects to enhance tourism…which have not been implemented. An important focus needs to be on creating organizational and leadership capacity to develop and market tourism." (LDR-00')*

2. *"Residents and business owners are open to new niche tourism opportunities, done in a way that does not sacrifice our rural quality of life. A planned approach through a county tourism management plan seems advisable". (UM-04')*

Five research documents represent the tourism database which informed the Piscataquis Tourism Task Force for incorporation into the Piscataquis County Tourism Plan:

- *FERMATA Nature Tourism Assessment and Strategic Plan:* FERMATA, Inc., the Governors Office and Maine Department of Economic and Community Development. (2005)
- *Tourism Attitudes: Four Rural Communities in Piscataquis County, Maine*: University of Maine Margaret Chase Smith Center, Department of Resource Economics and Policy, and University of Maine Cooperative Extension. (2004)
- *LDR-Tourism Marketing Strategy for Piscataquis and Penobscot Counties*: LDR International and Eastern Maine Development Corporation. (2000)
- *Southern Piscataquis Region Tourism Inventory & Marketing Strategy:* Donna Fichtner, Total Quality Maine for the Southern Piscataquis Chamber of Commerce. (1997)
- *Moosehead Lake Region Tourism Marketing Study,* Land Use Inc. for Moosehead Lake Region Chamber of Commerce. (1991)

The Piscataquis County Tourism Task Force also referred to the following:

- *Potential for Expanded Dog-Powered Activities in Piscataquis County, Maine*: University of Maine Dept. of Resource Economics and Policy, Staff Paper #552. (2005)
- *Procedures for Evaluating the Potential Regional Economic Impacts of Conservation Lands in the 100 Mile Wilderness Region:* University of Maine Dept. of Resource Economics and Policy for Maine Department of Conservation. (2005)
- *Opportunity Assessment for Increased Nature-Based Tourism and Maine Sporting Camps and Guides*: Gore Flynn Enterprise Resources Corporation for Eastern Maine Development Corporation. (2005)
- *Katahdin Area Tourism Plan*: Eastern Maine Development Corporation. (2003)

The PTTF developed to diversify and benefit businesses and communities the following recommendations for 2006. The recommendations build upon Maine's traditional tourism bases: hunting, fishing, snowmobiling, whitewater rafting, and camping, but only begin to address on-going "niche" tourism development.

PTTF proposes the following eight priority actions for 2006 to develop a foundation for county-wide tourism development actions.

Tourism Capacity Building:

1. Secure formal authorization for tourism development activities from the County Commissioners. Formally locate this under the organizational umbrella of the Piscataquis County Economic Development Council (PCEDC).

2. Establish a standing *PCEDC-Tourism Development Task Force* to advise, guide and direct countywide tourism development activities. Engage the task force in organizational and leadership development activities as for tourism developers, to assist in governance and communications and stakeholder partners to develop marketing linkages, as well as to develop and direct a plan of work over 2006. The composition of this task force will be determined from public and private sectors.

3. Work with county, regional and state partners to secure financial resources for an appropriate level of county staff capacity that adequately supports tourism implementation activities as directed by *PCEDC-Tourism Development Task Force.*

Tourism Business Assistance:

4. Together with University of Maine Cooperative Extension, conduct a rapid assessment of issues and opportunities facing tourism-based businesses in Piscataquis County. These findings will inform a revised framework for enhancing their access to appropriate small business information and assistance.

Tourism Product Development:

5. Together with appropriate partners, *clarify the scope of specific, marketable, soft adventure tourism products* that can be expanded and provided for from the base of natural resource and tourism business assets in Piscataquis County.

6. Together with appropriate internal-external partners, implement FERMATA Recommended Action #4: *"Finalize the thematic itinerary and publish an itinerary guide-map for Piscataquis County-Maine Highlands"*.

7. Together with appropriate internal-external partners, implement FERMATA Recommended Action #9: *"Develop consistent highway directional signs that support the thematic itinerary for Piscataquis County-Maine Highlands"*.

Tourism Marketing Linkages:

8. The role of the *PCEDC-Tourism Development Task Force* is uniquely "development" focused. Its tourism product development output complements and should be linked with the appropriate marketing entities, such as the Chambers of Commerce, Maine Highlands Corp., and Maine Office of Tourism.

Beyond 2006: For businesses and communities to benefit from tourism economic development activity, plans and actions need to build upon the foundation as outlined in recommendations for 2006. From its research review, the Piscataquis Tourism Task Force also anticipates the next set of tourism priorities to be considered in subsequent plans of work for the *PCEDC-Tourism Development Task Force.*

- *Information Centers:* What kinds of information centers and networks, at the town, county, and regional level best serve and provide for high quality visitor information about our county?
- *Lodging:* Several studies, including FERMATA, have addressed lodging as a component of the tourism industry needing further attention.
- *Other Product Opportunities:* Given the 2004 UM REP study, how might the county best capitalize on dog mushing, agritourism, forestry, forest heritage tourism, outdoor leadership, back country safety, and other themes?
- *Moosehead-Katahdin Trails:* Given that both travel corridors officially recognized by Maine DOT disperse visitors to the western and eastern regions of the county, what else should be done to increase the visibility and value of these two corridors?
- *Packaging and Marketing Visitor Experiences:* How might options for lodging with the range of nature and cultural heritage features in the region be incorporated into an appealing visitor opportunities package, such as in New Brunswick?

The restructured PTTF 2006 is just beginning to delve into its work for this year. This work is broader than the greater Moosehead region and yet informs the more focused local tourism work. It is important to understand the distinction between tourism economic development and marketing. The PTTF is charged with developing new tourism products (i.e. themed itineraries, trails, etc). Once the product is developed to the point of being ready to market, The Maine

Highlands Corporation (encompassing Piscataquis & Penobscot Counties), the designated tourism regional marketing entity, will help create the marketing products (brochures, booklets, maps, etc.) with assistance from the State of Maine Tourism Marketing Partnership Program grant money.

There are two chambers of commerce within the greater Moosehead region in Jackman and Greenville that handle limited tourism marketing efforts. Additionally, there is the Moosehead Lake Vacation Sportsmen's Association in Rockwood that receives funds from Somerset County for its own marketing activities.

Historic Context

Tourism resort destinations have a life cycle. Destinations must continue to re-invent themselves in order to remain viable as destinations. R. Butler, in his 1980 article, *The Concepts of a Tourist Area Cycle of Evolution: Implications for Management of Resources*, [12] proposed a theory about the life cycle of resort destinations that has become widely accepted and proven through tourism industry experience. The essential concepts indicate that a destination must continue to adapt and reinvent itself to meet the demands of changing trends in the marketplace or ultimately decline into irrelevance. There are many examples in our national landscape of destinations that have gone out of vogue and then struggled to make a renewed and more relevant entrance into the tourism mix. Two examples of this phenomenon are the American side of Niagara Falls (which lost its lively attractiveness in favor of the more vibrant Canadian side of the river), and Atlantic City, which has very successfully brought itself back from decline into a state of high desirability.

The Moosehead region has been a tourism destination since before the days of Henry David Thoreau. The first travel writer to visit Moosehead Lake was John Townsend Trowbridge in 1849. Before Thoreau's famous trip, Trowbridge was employed by a consortium of businesses including a steamship company, a hotel and a railroad-- to write about the region and entice others to come to the Maine woods for the experience of renewal. Ever since that first article appeared in *The Olive Branch* in Boston, tourism has been a critical driving economic force in the Moosehead region.[13] Thoreau, Emerson, Lowell and many other elite Boston intellectuals followed, writing about and promoting the region for further visitation.

Tourism destinations need anchors. A tourism destination needs one or more large anchors to do the "heavy lifting" in terms of marketing and attracting people (pull-power) to the destination. [14]

A successful destination requires one or more large business enterprises or anchors to attract consumers and promote business growth for the many smaller businesses that exist within the geographic boundaries of the destination. The limited marketing efforts (due to costs) and limited

[12] Butler, R. 1980: The Concepts of a Tourist Area Cycle of Evolution: Implications for Management of Resources. Canadian Geographer 24, 5-12.

[13] (Fichtner) Lander, Donna M., 1978, Graduate Thesis: Travel Literature of the Maine Woods 1824-1884.

[14] The term agglomeration refers to the cluster of usually disparate elements that are an extension of city or town area comprised of a built up area of a central place, usually a municipality. This term could refer to all of the businesses that exist within and beyond the borders of the town of Greenville that serve as economic drivers but are clustered in developed areas.

"pull-power" of a cluster of small businesses are not sufficient to attract the numbers needed to sustain the large regional tourism economy.

Professor Peter Keller, Chair of the Organization for Economic Co-operation and Development, discusses, in his 2004 article, *Conclusions of the Conference on Innovation and Growth in Tourism*, the difficulty that small tourism businesses experience in productivity, growth and innovation. He states,

> "Many destinations appear to be nowadays out of fashion . . . The older tourism countries are now paying the price for having been the first ones in the field. Their facilities and installations are becoming obsolescent [sic]. If you want to be 'state of the art' it is easier to start all over again than to try modernizing the old installations. . .. It is increasingly clear that the small business structure of tourism destinations is a drawback in today's competitive conditions. Companies that are too small inevitably have to pay the price, being unable to increase revenues or to reduce costs. The great diversity of services available at the destination level has a utility for individual tourists, but since each service must be paid for separately, the final price will be extremely high."[15]

[15] Professor Peter Keller, Chair of the OECD Tourism Committee, "Conclusions of the Conference on Innovation and Growth in Tourism, Lugano, Switzerland, 2004." p.5.

Importance of Critical Mass

The Moosehead region once had multiple anchors to give the region the necessary "critical mass" or agglomerative power to make it a powerful destination for visitors despite its distance from major urban markets. Without sufficient critical mass, all destinations suffer decline in attraction power and have limited success.

Rockwood, in its tourism heyday, was the largest attraction on Moosehead Lake. The Mount Kineo Hotel, according to historian Richard "Duke" McKeil[16], had capacity for about 1,000 people when all of the outbuildings and cottages were full. Rockwood was also home to three other hotels on the mainland, each with an estimated capacity of forty-sixty visitors, making Rockwood a significant destination with sizeable visitor hosting capacity.

Kineo employed over 100 guides to satisfy the demand of sports enthusiasts who came during the years of that early "boom." A village of guides surrounded the hotel and spilled over into Rockwood Village. In 1879, Lucius Hubbard advised the public, in his *Guide to Moosehead Lake,*[17] to be certain to reserve a guide over a month in advance if they did not want to be disappointed.

In the 1920's and 30's, over 55 passenger steamboats carried visitors who came in on three trains daily to Greenville Junction.[18] These visitors were transported to various locations and rooming houses around the Lake, but mostly to the Kineo Hotel. The Coburn Steamboat Company was the largest transporter on the lake.

Greenville had far less lodging capacity than Rockwood in those early years. In 1879, Greenville had two major hotels, the Eveleth House and the Lake House. By the early 1900's, that number had increased substantially, with the additions of Long Branch, Moosehead Inn, Piscataquis Exchange, and Indian Hill Farm, among others. Around the Lake, places like the Lily Bay House, Squaw Mountain Inn, Sanders Camps, Maynard's Camps, Wilson's, The Birches, Northeast Carry Hotel, Seboomook House, Capens on Sugar Island, a hotel on Center Island, and many other lodging establishments came to life.

Though the exact capacities of these tourism facilities are difficult to ascertain, it seems fairly evident from the size of most of the rooming houses and hotels that they were able to handle between thirty and forty guests, at a minimum.[19] This capacity, coupled with hotels located on nearly every major island in Moosehead Lake, indicates a possible regional capacity approaching fifteen hundred.[20]

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[16] Richard Duke McKeil grew up in Rockwood and is a retired history professor from the University of Southern Maine. Duke McKeil is currently the Executive Director of the Moosehead Marine Museum that owns and operates the former steamboat, "Katahdin", in addition to a large collection of historic marine memorabilia from the steamboat era on Moosehead Lake. He was the General Manager of the Kineo Hotel for ten years just before it closed its doors permanently in the 1950's.

[17] Summer Vacations at Moosehead Lake by Lucius L. Hubbard. 1879, (updated in'80 with map, '82, '93)

[18] Richard McKeil, Moosehead Marine Museum.

[19] Candace Russell, Moosehead Historical Society.

[20] Extensive research would be required to determine exact building dates of facilities to determine actual capacity during any given year.

When the Mount Kineo Hotel closed its doors to the public in the late 1950's, the balance of lodging capacity had already shifted to the lower end of the Lake. Part of that shift was due to the new operation of Squaw Mountain facility, which became a major destination near the south end of the Lake.

The market most attracted to the region at its early height was the well educated, affluent and sports oriented market from Boston, New York, Philadelphia and beyond, not unlike the markets that came to the Maine coast around the same time. The demand on Moosehead was so great that Camp Wildwood, a summer camp located on Sandbar Island, opened exclusively to accommodate the children of the visitors who flocked to the Kineo resort.[21]

Large companies did the marketing and promotion to bring the visitors to the destination. The Eastern Railroad, The Maine Central, Boston & Maine, European & North American Railroad, Bangor & Piscataquis Railroad, Crosby Patent Axe Covers, Reed Fishing Rods, Hinds Stereoscopic Views, and Winchester Rifles were all sponsors and advertisers in *Summer Vacations at Moosehead Lake* published by Lucius L. Hubbard in 1879. Few of these companies were located in the Moosehead Lake area, but they had significant vested business interests dependant on the success of the region.

Since the 1930's, when new roads changed the preferred mode of transportation to and around the Lake, the critical mass for tourism in the Moosehead region has been slowly and consistently diminishing.

In the 1950's a group of nearly a dozen Greenville business visionaries decided to develop a ski operation on Squaw (now Moose) Mountain. Though the early years were fraught with start-up difficulties, by the mid to late 60's, the operation was functioning fairly well.

In the 1970's, there were four key business anchors that continued to pull the market to the region and drive the marketing effort for the region. The major anchor, the recently developed Squaw Mountain Resort, employed 135 people at the height of the winter ski season in 1974-75 with a budget of $1.6 million, in its best year. That facility brought in over 70,000 people during the course of the year with skier days between 55 and 60,000 during the winter season alone. The balance was made up in summer operations (rafters, groups, vacationers) and business meetings. Duane Lander, CEO of Squaw Mountain Corporation from 1972 to 1985 estimated the following resort operations revenues by category for the 1974-1975 season: Restaurant, $450,000; Skiing, $300,000; Hotel Operations, $500,000; Ski School/Shop Services, $350,000.[22]

The other major anchor businesses during that time were Eastern River Expeditions, the Birches & Wilderness Rafting Expeditions and Leisure Life Lodge. Collectively, these businesses spent upwards of $400,000 on marketing strategies in an effort to attract businesses, middle class consumers, middle- to higher-income families, and corporate business.

[21] Richard McKeil, of the Moosehead Marine Museum and former General Manager of the Mount Kineo Hotel.
[22] Duane Lander, CEO of Squaw Mountain Corporation, 1972 – 1985.

Regional tourism facility capacity and attraction power has diminished over time due to the demise of the major hotels, the change in ownership and operation of Squaw Mountain, and the inability of small businesses to carry the necessary marketing weight for the region. The large anchor businesses have been replaced by an increase in small businesses, housekeeping camp and cottage facilities, and individual rental properties. The combined marketing effort of small businesses does not begin to approach the effort accomplished by the larger businesses of the past.

Additional data from the North Maine Woods (NMW), the recreational management agency for the large landowners north of Moosehead Lake, indicates that the number of visitors to the North Maine Woods similar areas has been in constant decline over the last ten years.[23] This data consists of raw numbers which show that consumer use has been declining for the past ten years for the North Maine Woods, Baxter State Park, Allagash Wilderness Waterway and Katahdin Ironworks Jo-Mary Forest (KIJM).

Also of note is that each area has different types of recreational use. Baxter Park has very little hunting and is primarily used for hiking and camping. The Allagash offers canoeing and fishing, but no hiking and limited hunting. NMW's primary uses are hunting and fishing, but no hiking. KIJM is known for family camping and hiking, with some fishing and very little hunting.

No research has been done to determine the cause of this decline in use. However, since about fifty percent of the visitations to the greater Moosehead region during the last twenty years have reflected a Maine market, it would be reasonable to deduce that perhaps the number of out-of-state visitors (representing the outdoor "experiential" market) has been diminishing. At a minimum, the lack of sufficient marketing has likely prevented the message from reaching the majority of new nature consumers.

If one accepts Butler's model for a destination resort as previously described one can see the life cycle at work in the greater Moosehead area. There is no denying the quick expansion of the region around the turn of the twentieth century; however, by 1950 there had been a significant decline in tourism. The Squaw Mountain Resort operation was a somewhat successful attempt to reverse that decline. In the mid 1980s, after the resort was sold into private ownership and several other economic drivers changed ownership, marketing fell off, and the ability of the region to retain its former economic vitality swiftly declined.

Increased Number of Visitors under Plum Creek Plan

The Resorts

As noted above, Plum Creek proposes two resort zones.

- Big Moose Mountain Resort/Recreation zone (2,600 acres within the Greenville/Rockwood corridor with an anticipated 500 tourist accommodations); and

[23] Note: The spike in the graph in Appendix TO1 is due to the expansion of the North Maine Woods region into the West Branch of the Penobscot area, formerly owned and managed by Great Northern Paper. Thus, the area known as the "North Maine Woods" "expanded" from 2.8 to 3.5 million acres.

- The Resort at Lily Bay (500 acres within the Greenville/Lily Bay corridor with an anticipated 250 tourist accommodations).

Table 3.2 outlines the potential increased number of visitors to the greater Moosehead region based upon new resort construction under the Plum Creek Plan.

It is important to note that the Plum Creek Plan does not include a specific tourist facility site development plan for either the Lily Bay or Big Moose Mountain areas. In order to provide some numeric reference, Plum Creek has used the numbers of 500 accommodations at the Big Moose Mountain tourist facility zone, and 250 accommodations at the Lily Bay tourist facility zone.

The following projections assume an annual visitor occupancy rate of 65 percent, which is currently high for Maine, considering the need for the region to re-establish itself as a destination, it is important to look at projections that are somewhat higher than current averages. For the purposes of determining impacts, this study projects a higher than typical occupancy rate to maximize estimated impacts, rather than to optimistically underestimate. Smith Travel Research reports that Maine's statewide visitor occupancy rate for 2005 was 59 percent and, for 2004 at 60 percent.

Table 3-2: Plum Creek visitor impact assumptions & calculations						
Project	**Accommodations**	**Persons per accommodation**	**Occupancy**	**Annual Occupancy %**	**Days/Yr**	**Visitor impact**
Maximum Impact Projection						
Big Moose Mountain	500	3	1500	0.65	365.00	355,875
Lily Bay Resort	250	3	750	0.65	365.00	177,938
Total Visitor Days						**533,813**
Projection Based on Nine Months at Current Regional Occupancy Rates						
Big Moose Mountain	500	3	1500	0.60	273.00	245,700
Lily Bay Resort	250	2.5	625	0.60	273.00	102,375
Total Visitor Days						**348,075**

The maximum impact projections assume 3 persons per accommodation. This is deliberately higher than any current average. An average occupancy of 2.5 per accommodation is more realistic for similar properties in Maine and is used for the second projection of visitor days.

Under this aggressive scenario, the new resort properties in the Moosehead Lake Region could potentially draw an additional 533,813 visitor days per year. Squaw Mountain ski resort historically hosted 70,000 visitor days during peak season. Acadia National Park consists of 47,000 acres (entire park) and hosts more than two million visitor days annually[24] (Prof. Vail reports 2.2 million). The Plum Creek Plan Area covers 421,000 acres. The Plan proposes to accommodate additional new visitors over a significantly larger landscape, thus greatly minimizing the negative impacts of congestion, etc. These additional visitors are assumed to be

[24] Vail, Professor David, *Can Maine's Rim Counties Become a "World Class" Tourist Destination?* Symposium on *Spreading Prosperity to the 'Other Maines'*. September 29-30, 2005.

spread over nine months of the year, bringing to the region approximately 59,313 new visitor days per month, or 14,828 per week. Conversely, Acadia's annual visitors days, evenly divided over six months, yields an average of approximately 333,333 visitor days per month, or 83,333 visitor days per week.

These assumptions for additional visitations yield numbers well below those that are actually being recorded in Maine's highly prized and second most visited national park. Plum Creek's larger Plan Area will afford these potential visitors more space than that offered in Acadia National Park that will help retain the "remote" feel of the North Woods experience, yet still serve to stimulate the regional economy.

Table 3-3: Current Moosehead Region Visitor Impact Assumptions & Calculations

Project	Capacity	Pop per unit	Occupancy	Annual Occupancy %	Days/Yr	Visitor impact
Greenville	1880	NA	NA	0.40	365.00	274,480
Jackman	574	NA	NA	0.40	365.00	83,804
Moosehead Campgrounds/Sites	498	2	996	0.35	182.00	**63,445**
Jackman Campgrounds/Sites	100	2	200	0.35		**12,740**
						434,469

Assumptions:

- Greenville & Jackman accommodation figures reflect lodging capacity with all beds full.
- Campground figures reflect number of existing sites. An estimate of two persons per site has been figured at 35 percent annual occupancy for just six months of the year.
- Annual occupancy percentage for the Moosehead region lodging is not available from statewide research. Based on information from many lodge owners during the RBEG study[25] (EMDC), 40 percent occupancy year round is a reasonably optimistic figure.
- Occupancy levels for the campgrounds were deemed to be slightly lower from conversations with owners throughout the RBEG study, thus the 35 percent figure is used.

Based on the limited data available, we have estimated the current occupancy of the Moosehead region at approximately 434,469 visitors. These assumptions do not include seasonal residents or second homeowners; however, if these assumptions are somewhat accurate, then the addition of two new resorts would gradually increase the visitation above the current level by 82.5 percent over a period of six to fifteen years. This assumes that resort development will be phased. The Lily Bay resort would not begin construction for at least seven years after Plan approval. The full increase from current visitations to the new level of anticipated guests would raise the number of visitors by 123 percent.

In a speech entitled *Can Maine's Rim Counties Become a "World Class" Tourist Destination?* prepared by Professor David Vail of Bowdoin College for the September 2005 *Symposium on*

[25] Rural Enterprise Business Grant, The Maine Highlands's Lodging & Dining Inventory, EMDC, September 2005.

Spreading Prosperity to the 'Other Maines', [26] Vail defines a world class destination to mean "one capable of attracting a large increase in summer-fall visitors, especially from beyond our main tourist catchments area of Mid-Atlantic and New England states (four-fifths of overnight visitors from away)."

Professor Vail goes on to state, "By 'a large increase,' I have in mind 200,000 to 500,000 more marketable overnight trips per year (say 1.5 to 2.5 million more 'visitor days'), combining new and repeat visitors from outside Maine." Vail admits that these are "back-of-the-envelope calculations [based on] the region's carrying capacity and the growth needed for a significant economic boost." He places these calculations within the context that "200,000 tourists is just 1 percent of summer visitors to the coast from Kittery to Acadia." The world-class destination vision is clearly not a wilderness vision; however there is room for extensive roadless and primitive recreation areas in all of the approaches" (p.1).

Professor Vail further asserts in his speech, his concept that the "rim counties" could possibly benefit significantly from the magnetism and high profile visibility of a national park-like destination without actually creating a national park. A large "high profile, landscape-scale protected area," Vail feels, could be a powerful economic engine based on Thomas Power's "survey of 22 large U.S. parks' impacts on 45 adjacent counties [that] show they are associated with growth and employment much higher than in non-metropolitan counties in general." (p.4)

Professor Vail states that the combination of high-density resort development on a small proportion of land with various conservation measures on most land could make these resorts "powerful magnets for many types of tourists from far and near . . . if the projects were done right" (p. 5).

Supporting local efforts in the earlier described work of the Piscataquis Tourism Task Force of the Piscataquis County Economic Development Council, which is creating new tourism product through a careful process to ensure product quality and success when it is ultimately marketed to the public. Taken together, these efforts will help to ensure that the layered regional visions and details are addressed.

To support and supplement the new accommodations and to enhance recreation opportunities within the region, four new permanent trail networks are included in the proposal, as well as access to a 61,000-acre parcel that will be permanently conserved as a working forest, and the shorefront lots of 59 lakes and ponds, which will be permanently conserved.

Establishment of 144 miles of new permanent public trail easements would significantly expand the existing trail systems. The scale of this recreational infrastructure, as well as its permanence, may draw new visitors to the region and support the economy. However, there is a cost to planning and constructing trails.

Moosehead Lodging Capacity

[26] Vail, Professor David, *Can Maine's Rim Counties Become a "World Class" Tourist Destination?* Symposium on *Spreading Prosperity to the 'Other Maines'*. September 29-30, 2005.

The lodging trends for the Impact Area's local communities are stated where data is available. The total traditional lodging capacity has actually diminished for Greenville, Rockwood & Kokadjo. Specific lodging capacity inventory data is not available for the years prior to 1980.

Table 3-4: Lodging Capacity

Year	**1988**	**1994**	**2004**
Total Capacity	*1,850*	*1,738*	*1,862*[27]
Greenville	748		1,348
Rockwood	625		464
Kokadjo	83		50
Remote Outlying Lodging[28]	340		841[29]
Cabins	1,047	1,029	1,280[30]
Hotels, Motels, B&Bs	803	709	745[31]
Total Campsites	*680*		*598*
Private	390		208
State, BPL, Forestry	200		200
Lily Bay	90		90

[27] The 2004 figure of 1,862 includes capacity for 375 in private cabin rentals through a single rental agency. This phenomenon did not exist in the previous inventories, thus, when that figure is backed out, the remaining capacity in traditional inns, hotels, motels and bed & breakfasts is **actually 1,487**. The relatively new phenomenon of the "private rental" has arisen in recent years from second homeowners who rent their properties when they are not in residence. Internet marketing through one-on-one consumer communication has made the rental of these private properties easier, less costly and more efficient than ever before. The private rental lodging seems to be the largest area of growth in the Moosehead region. We do not see this trend in the Jackman area.

[28] This refers to lodging that is located in distant parts of the Moosehead region, but which derives benefits from membership in the Moosehead Chamber of Commerce and is included in their lodging inventory. The Moosehead region is often the closest location for organizational and marketing support of many sporting camps and outlying lodging such as Pittston Farm and Penobscot Lake Lodge.

[29] The remote capacity number in the recent inventory includes capacity for 636 in The Forks, which was not included in previous inventories. That capacity is not technically in the Moosehead region, but The Forks does get referrals from the Moosehead Chamber office.

[30] Within the camp and cabin category, there are many individual and multiple sets of private cabin rentals that are new within the last ten years. Thus, this number is on the rise while the traditional and standard room capacity is diminishing.

[31] This number is interesting. B&B's and small inns have increased as more private homes have been turned into lodging facilities. There have been no new hotels or motels established within the last ten years. In fact, a few hotel/motel operations are closed and are on the real estate market.

Jackman			100

The quality of lodging in the Moosehead region has changed. The majority of the commercially owned camp operations are now housekeeping cabins where people cook their own meals throughout their stay, or dine out. This is not the same as a traditional sporting camp operation where meals are served in the dining room of a main lodge. Several recent studies, including, The Moosehead Lake Region Tourism Marketing Strategy by LandUse, Inc.[32] (1991) Penobscot and Piscataquis Counties, The Moosehead-Katahdin Region Tourism Marketing Strategy by LDR International, Inc. (9/2000)[33] have noted the deterioration of the quality of lodging facilities in the region and the need to upgrade those facilities to satisfy the market demand for a higher quality experience. The solution to this "quality" issue from a consumer perspective is evident from the increasing popularity of new bed and breakfasts, small inns in large historic homes, and many newly constructed private rental facilities.

The LDR study asserts: "Many have suggested that the key to strengthening tourism is developing upscale accommodations. A few inns and B&B's that have sought a more affluent clientele have reported success, but the scale is too small to be a reliable indicator. Until the market is strengthened, development of more accommodations will be questionable. The current lodging cannot serve many components of the market, like groups and meetings"[34] (This study did not include Jackman).

Traditional sporting camps offered primitive sleeping arrangements, often had no indoor plumbing, and tended to be clustered around a main lodge with a central dining area. Such a rustic camp does not meet the expectations of the new experiential visitor market. Though these visitors may want to run the rapids in a kayak during the day, they also expect fine accommodations, outstanding food, fine wine, and a cozy, memorable experience around the fire at the end of the day. This experiential market has high expectations and demands, which rustic accommodations with primitive plumbing are not capable of meeting.

If the sporting camps are to meet the high expectations of the experiential visitor and still accommodate the nature-based tourists and guided experiences as FERMATA has envisioned, these camps must have the ability to serve exceptional meals and offer fine accommodations.

Most of the sporting camps that traditionally served meals in a central dining facility have converted to housekeeping cabins where guests prepare their own meals. On the inventory list of thirteen "sporting camps," only four meet the "served meals in central dining lodge" qualification. There are few traditional sporting camps left.

Rooms that meet the higher quality standard and expectation of experiential visitors can be found at only five or six properties within the region. The actual number of high quality rooms in the Moosehead-Jackman region is about 55 rooms and cabins (not including any "private rental"

[32] Recommendation: "Make basic repairs to the Region's deteriorating accommodations." P. 19.
[33] "The quality of lodging outside Bangor is an issue." P. 51.
[34] LDR International, Inc., Penobscot and Piscataquis Counties, The Moosehead-Katahdin Region Tourism Marketing Strategy, September 2000, p. 51.

facilities) with capacity for approximately 180 guests. Although the majority of accommodations provide fine economy to mid-level type rooms, the ability of the region to meet the higher quality standard with multiple amenities is limited.

Campsites were not evaluated in the 1994 inventory; however the capacity has dwindled since 1988. At least one large campground, quite possibly the largest on Moosehead Lake, has been recently placed in private ownership. Existing camping capacity is just under 500 sites and would decrease if long-term seasonal sites were removed from that inventory.

In Jackman, since campgrounds are seasonal, most owners were unavailable for inventory purposes. We estimate there are about 70 commercial campsites in the Jackman area with another 50 currently under construction. In addition there are about 30 primitive camping sites in the surrounding area.

Jackman Lodging Capacity

The first recorded sportsmen trip to Jackman was in September, 1881. The Canadian Pacific Railroad made its way to Jackman in 1888, thus opening up the border community year round. A number of hotels and sporting camps had also been established in the Jackman area by 1915.

Jackman's current lodging capacity is approximately 574. Since not all owners responded, we estimated that figure based on the best information available. The quality of the lodging in Jackman is generally considered on the economy end of the scale. In many cases, there are multiple beds in one large room or cabin, thus providing a good set of accommodations for groups of hunters, snowmobilers and ATV enthusiasts. Attean Lake Lodge is a higher end property with more upscale amenities.

Table 3-5: Lodging Capacity by Establishment

Business Name	Number of Units	Approx Capacity
Attean Lake Lodge	15 cabins	90
Big Wood Lake B&B	5 rooms	10
Bishop's Motel	23 rms; 1 suite	40
Boss Motel	12 rooms	44
Cedar Ridge Outfitters	2 cabins	12
Cozy Cove Cabins	9 cabins	36
Crumley's Lodging		NA
Jackman Motel	8 units	32
John's 4 Seasons	Multi	40
Long Pond Camps	6-8 Cabins	32
Majestic Moose Cabins	1 dbl/4 twins; 2 cabins	16
Moose River Lodge		NA
Mountain View Resort	10 units	50
Northland Hotel	8 rooms	40
Riverview Housekeeping Cabins	5 cabins (2-16 ea)	80
Sally Mountain Cabins	7 cabins	28
Sky Lodge Resort &	3 cabins/Hs 6	24

Cabins		
The Last Resort	8 cabins	31
Total		**574**

3.2 Changes to Inventory

Plum Creek's Plan Description contains an inventory of many of the tourism facilities and recreational amenities available in the Moosehead region; however, it is not complete. The following discussion lists additional amenities, or, in some cases, more in depth information not included in the Plum Creek inventory.

Jackman Campgrounds

Since campgrounds are seasonal, most owners are unavailable for inventory purposes. There are about 70 commercial campsites in the Jackman area with another 50 currently under construction. In addition there are about 30 primitive camping sites in the surrounding area.

Recreation Resources

Water Based Recreation

Whitewater Rafting

During the summer of 2005, the whitewater rafting industry was down by 3.4 percent on the Kennebec River. The Dead and Penobscot numbers have not yet been tallied. Preliminary industry estimates are that the Dead River will prove to be flat and the Penobscot River will be down slightly more than the Kennebec.

Wende Gray, Executive Director of Raft Maine, offers the following assessment of the whitewater rafting industry in Maine: "Whitewater rafting companies have learned that they cannot survive on rafting trips. Fifteen years ago the retail price of a rafting trip was $75. Now with huge investments in infrastructure development, self-bailing boats, toilet facilities, etc. the price is $79. Insurance has increased, road access fees are up, etc. putting lots of pressure on outfitters. The older well established companies who belong to Raft Maine are all right because they have paid down mortgages, but at the same time have reinvested. . .. These are also the companies that have grown into adventure resorts offering a variety of activities just like ski resorts. Generating revenues purely from a lift ticket or a rafting trip are long gone. The industry is maturing and mergers and acquisitions are taking place although the convoluted structure of Maine's regulatory laws does not make it easy to do so even though this is probably the healthiest thing that could happen. Because rafting is basically a commodity business – all (companies) using the same size raft, paddling the same waters, there is little differentiation on the river. Therefore it is highly competitive . . . resorting to price wars."

Table 3-6: Economic Statistics for Rafting in Maine - 2001-2003

Year	**2001**	**2002**	**2003**

Total Rafting Visits	91,257	85,900	81,198
Average revenue/guest	$148.87	$154.16	$164.90
Total Revenue	$13,585,430	$13,242,344	$13,389,550
Capital Investment	$144,500	$601,430	$1,078,968
Marketing Expenditures	$949,985	$894,200	$1,051,000
State Taxes from Rafting	$334,000	$381,380	$413,736

Canoeing & Kayaking

Below are some of the many additional water bodies that offer extraordinary paddling experiences. Many other opportunities exist through the Plan Area.

The east and west outlets of the Kennebec River from Moosehead Lake offer outstanding paddling opportunities. West Outlet is meandering, calm flat-water with some excellent bass fishing opportunities near where it joins the East Outlet. East Outlet has some Class II and III whitewater. These trips are enjoyable for both entry and mid level paddling or kayaking experiences, as the paddler can feel very remote on the rivers as soon as they get beyond the dam and out of the sight of Route 15. It is important to note that these resources exist less than twenty minutes from Greenville and Rockwood and are viable day trips from either location. Visitors can engage in an experience that allows them to feel "wild and remote" while they are quite close to the man-made environment. In the evening, they may go back to their lodging facility, dine out, and shop in the local retail stores. The economic value of this high quality day trip cannot be overestimated.

The Moose River between Long Pond and Brassua Lake is currently being used as a day trip for whitewater rafting customers of Wilderness Rafting in Rockwood providing Class II and III whitewater on this paddle. This portion of the Moose River provides the feel of a wild and remote river, but is only a short drive from Rockwood resorts and accommodations. This water resource is important for the economic value that it currently brings to local businesses.

There are coves in both Squaw and Lily Bay on Moosehead Lake where quiet paddles can be enjoyed when winds are calm without significant interference from motor boat traffic. Paddling deep into Squaw Bay can take you into a cove cut off by a railroad bridge and inaccessible to large boat traffic, providing a quiet, wildlife filled retreat. Similar experiences can be enjoyed in Lily Bay and some other less developed and more remote coves and inlets of Moosehead Lake. Though there currently is development in both Squaw and Lily Bay, the quality of these experiences has not deteriorated. It is important that we retain some of these experiences for the non-motorized visitors who enjoy unbroken view sheds and a quiet natural experience.
There are active plans underway to bring the Northern Forest Canoe Trail from Old Forge, NY to Fort Kent, ME through the Moosehead Lake area. The trail coalition has been working with the Natural Resource Education Center board to sponsor the trail from the Moose River Valley to Moosehead Lake and ultimately up to the Allagash, with a spur trip from East Cove in downtown Greenville, to Mt. Kineo, then up to Northeast Carry.

Another safe, non-technical, paddle is on the West Branch of the Pleasant River from Silver Lake, just beyond the KI Gate. This is an enjoyable paddle up river through a meandering floodplain.

Fishing

Excellent small-mouthed bass fishing exists on West Outlet of the Kennebec and in Indian Pond. The bass come all the way up to the dam at East Outlet, but can be plentiful in many areas along the river.

Boat Landings/Launches

The Plum Creek inventory in the Plan is fairly complete, however, additional boat launchings are listed below. This infrastructure changes from time to time.

- Jewett Cove
- East Outlet/Kennebec
- Fogg Pond
- 1st West Branch Pond
- Penobscot Pond
- Canada Falls
- Lower Wilson Pond
- Sawyer Pond
- First Roach
- Moosehead/East Cove 4
- (Forestry/IF&W/Big Lake Marina/Preo Park)

Jackman has fewer launch sites as listed below. This list below is fairly complete according to local paddlers.

- Wood Pond
- Attean Pond
- Holeb Pond
- Parlin Pond
- Long Pond (unofficial launch at lower narrows)

Marinas

Below is existing marina information.

Table 3-7: Marina Capacity

On Moosehead Lake	Existing Slips	Pump out
Big Lake Marina	24	yes
Beaver Cove	95	yes
Moosehead Marina, Rockwood	75+35 condo slips	yes

Total	**194 + 35 condo slips**	
In Jackman		
Moose River Landing	A few tie-ups	None

Water Taxi

There is one water shuttle that runs from Rockwood Landing to Kineo (hourly from 8am to 6pm) during the summer season. Attean Lake Lodge runs a water taxi for hikers needing transport to hiking and camping areas.

Seaplane Flying Services

Table 3-8: Seaplane Service

Greenville	**Scenic Flights**	**Charter Flights**	**Maintenance**
Currier's Flying Service	Yes	No	
Folsom's FBO Airport	No	No	Yes
Jack's Flying Service	Yes	Yes	
Jackman			
Coleman's Flying Service (part-time)	Yes	Yes	

Historically, floatplanes have been used to access the remote areas within the Maine Woods. Charter flights to remote sporting camps have been a mainstay of the local economy. However, that trend is changing due to the increasingly high cost of insurance and the complicated logistics and planning required for back country charter flights. Weather is also a hindrance in the ability of the flying companies to service their clients.
In the last three years, the number of flying services who handle charter flights within the region has dropped from four to two. The two remaining charter services, Jack's Flying Service in Greenville and Steve Coleman's Flying Service in Jackman are not full time and are not always available for immediate, on-demand service. Currier's Flying Service still offers scenic flights, as well as Jack's and Coleman's.

Land-Based Recreation

Hiking

There is an extensive network of hiking trails throughout the region within the Plan Area, although many are not public trails, but are available to the public only under Plum Creek's "Open Lands" policy. The Plan Area offers mountains which many enthusiasts would like to see developed for hiking opportunities.

Issues that need to be addressed on each particular trail include: directional signage to the trailhead, well-marked trailheads and trails, safe parking areas a considerable distance from high-traffic roads, especially when log trucks are present, carrying capacity limits to insure that the trail experience and the resource is not diminished, additional toilet facilities when warranted, and ongoing trail maintenance.

Below are some general comments offered by hikers and local business owners with specialized knowledge of trails, trailheads and parking.

Moosehead

- Barren Mountain – Road and trailhead need work and good signage. Parking is all right.
- Nahmakanta Preserve - Offers numerous hikes including Gulf Hagas, Hay, Wadleigh, Chairback Mountains, and others.
- Big/Little Moose Mountains – Little Moose Township – Good signage; excellent parking at trailheads.
- Big Spencer Mountain - Road needs work. Existing pull out for about two cars; poor to non-existent signage.
- Little Spencer Mountains – Good signage. Parking for one to two vehicles (private land).
- Borestone Mountain – Good parking. Land available for expanded parking. Well signed.
- Elephant Mountain. – Parking is OK.
- Number Four Mountain – There is no easily distinguishable trailhead and no parking.
- Whitecap Mountain – Needs trailhead and parking work.

Jackman

- Number 5 Mountain – Not much of a trailhead. Old road trail not blazed or maintained. Two trails. Parking for approximately two cars.
- Coburn Mountain - Old Enchanted Mountain ski area. Can drive two-thirds of way to top and the trail. Marked trail. Can park safely. Trail groomed in winter for snowmobiling.
- Sally Mountain - Water shuttle arrangements must be made with Attean Lake Lodge.
- Benjamin Clearwater Valley - Trail network.
- Burnt Jacket – Old hiking trail not maintained since 1996; set of trails probably visible with difficulty.
- Williams Mountain – Fire tower not well maintained
- Bald Mountain – Two trail systems to top. Marked trail. Trail from old warden‘s camp site. No organized parking. Groomed for snowmobiling in winter.

Camping

The camping section of the resource inventory is fairly complete regarding public campsites. Private and some public campsite inventory have been included in the lodging section.

Biking

There are biking trails in the Little Moose Mountain area as part of the Bureau of Public Lands hiking area. Local biking clubs are biking in the Mud Pond area, on the old railroad bed to Shirley, on the Squaw Mountain Road and on the main road (Rte. 6/15) to Rockwood.

Jackman has one of the most extensive mountain biking trail systems in Maine. The region boasts over fifty miles of marked trails with varying degrees of difficulty. Local landowners, including Plum Creek, have an open land policy which allows mountain biking on their hundreds of miles of dirt roads. The Border Riders Club House is the access point for the Jackman to Rockwood Trail. The Rancourt Pond Loop offers a short ride perfect for all levels of riders. The Sandy Bay loop is considered easy to moderate in difficulty. The Bald Mountain ride is located just off Rte. 201.

Cross-County Ski Trails

Cedar Ridge Outfitters in Jackman offers groomed cross-country trails, while Sky Lodge has some trails available exclusively to their corporate business accounts. In the Moosehead area, The Birches Resort offers over 50 miles of groomed cross-country ski trails. A. Fierce Chase in Monson also promotes nicely groomed trail loops for every level of ability.

Dog-powered Activities

Jackman hosts the New England Championship Race for the Downeast Sled Dog Club in December and March. This is a growing sport in Jackman according to local leaders.

A 100-Mile Sled Dog Race was planned for the winter 2006 season. This race was to run from Greenville to Brownville, sponsored by the participating municipalities, landowners and business interests. Due to lack of sufficient snow cover, the race was cancelled.

Snowmobile Trails

The snowmobile section of the study includes information from the most recent studies commissioned by the Maine Snowmobile Association. MSA reports 100,000 Maine registrations and 23,000 non-resident registrations in 2004.

The Maine Warden Services handles enforcement of safety regulations on the snowmobile trails, and collects data related to traffic stops and the volume of traffic on the Moosehead-Rockwood-Jackman trail network. Lt. Pat Dorian, who oversees the warden enforcement effort, estimates that the region currently sees approximately 1,000 sleds per day on weekends during an average winter, and about 200 snowmobiles per day on weekdays during normal winter snow conditions.

According to Lt. Dorian, the trails are designed and groomed in such a way that, in his opinion, the snowmobile traffic could be doubled without significant negative impacts. Dorian estimates that the snowmobile traffic might increase by 10% with full build-out of the Plum Creek Plan. Dorian believes there has been an actual decline in the number of snowmobiles on the trails in recent winters.

The Town of Greenville grooms approximately 70 miles (one-way) of ITS snowmobile trails, in addition to 50 miles of local club trails; Kokadjo Camps grooms about 90 (one-way) miles of trails; Pittston Farm grooms 82 miles; the Squaw loop consists of about 42 miles; Rockwood in total grooms about 70+ miles; Jackman Border Riders groom over 90 miles of trails. The snowmobile trail network in the region is very large, complex and relies primarily on volunteers for trail work and grooming. The State of Maine reimburses the communities to cover approximately half of the cost of most local programs; while the local communities/businesses raise the money to cover the rest of the costs.

The snowmobile trail network is dependant upon landowner permission to cross their land. The snowmobile clubs have worked with the landowners over the years to obtain permission to use, locate and cut/trim the trails. While logging operations are taking place in the vicinity of a portion of the trail, landowners have assisted the snowmobile clubs in relocating the trails on a temporary basis until the cutting operation is complete. The additional work involved is carried out by club volunteers, and maps are usually paid for and produced through the chambers of commerce and the business community.

In the Jackman area, Coburn and Bald Mountains have groomed mountain climbs that can be accomplished by snowmobile in winter. Enthusiasts can also snowmobile to Grand Falls on the Dead River to enjoy a beautiful winter landscape.

ATV Trails

Although ATV trails were not mentioned in the Plum Creek Plan inventory, they are an important factor throughout the spring, summer and fall recreation picture in the project area.

Although there have been approximately 70 miles or more of ATV trails in the vicinity of Moose (Squaw) Mountain, both snowmobilers and ATV riders have recently (Fall 2005) had an unsettled relationship with the Moose Mountain property in Big Moose Township, a key link in both of these important trail networks. Although this change interrupted the important connectivity of the trail network around Moosehead Lake for a short time, the dispute was recently resolved. This situation points out the importance of a permanent trail network.

Kokadjo Camps has developed a network of 120 miles of temporary ATV trails in an effort to diversify a business struggling for new viable summer activities.

Jackman is becoming a “motor sports town” and now boasts the second largest ATV trail system in Maine (maintained by the Border Riders). Jackman welcomes the sport while many private lands are closed to ATVs.

Skiing/Snowboarding

Although Moose (Squaw) Mountain Resort certainly exists within the Plan's Impact Area, the operation of that facility has been sporadic and has been closed for extended periods. Minimal marketing has been done on behalf of the ski resort, which is no longer a member of Ski Maine (the cooperative marketing organization for the Maine ski industry) or the local chamber of commerce.

This change in the operation of the mountain eliminated the large influx of visitors that Squaw (now Moose) Mountain historically brought to Greenville during the winter months. This former economic force in the region (see history) instead has become a sporadic operation for local residents. Most of the former Squaw Mountain skiers have long since relocated to Sugarloaf or Sunday River, where full service operations are guaranteed.

Golf

In addition to those courses already listed, the Guilford Country Club also has a nine-hole golf course that is open to the public and is closer to the Plan Area than the Sugarloaf Course.

Hunting

Hunting, a traditional sport in Maine, is allowed on public land, except in Game Preserves, or on private land with landowner permission. No hunting is allowed on posted lands

Skeet/Trap and Target Practice

The only facility in Piscataquis County for organized shooting sports is Big Pine Gun Club in North Guilford/Willimantic off Route 150. Target shooting is often practiced in many local sand pits, where young shooters learn the sport from their parents.

Unique Natural Areas

According to local residents, there are several unique natural areas in the Jackman area.
There is a peat bog located near Jackman (south of Attean Pond), also known as a "string bog." The Forest Society of Maine owns the Attean side of the #5 Bog, which is known for some uncommon ecology. Plum Creek owns the rest of the #5 Bog, which, in conjunction with the Plan, Plum Creek will be offering for sale to The Nature Conservancy.

Reggie Griffin owns the McKenney Ice Caves in Upper Enchanted Township, which are listed under the Maine Critical Areas program.

Waterfalls

Additional waterfalls in or adjacent to the project area are:

- Attean Falls – Moose River, Bradstreet Township
- Canada Falls – Soldiertown Township, Pittston Academy Grant, Alderbrook Township.
- Debsconeag Falls – West Branch of the Penobscot River, T2R10WELS
- Earley Landing Falls – Big Wilson Stream, Willimatic
- Grand Falls – Dead River, T3R4 BKP WKR
- Heald Stream Falls – Heald Stream, Bald Mountain Township
- Nesowadnehunk Falls – West Branch of the Penobscot River, T2R10
- The Falls – East Branch, Sandy Stream Township (off Rt. 201 rest area)
- Tobey Falls - Big Wilson Stream, Willimantic
- Pockwockamus – West Branch of the Penobscot River, T2 R10 WELS

There are other locally known falls, but they are often not marked or readily accessible. The waterfall list could be very lengthy, but access, signage, maintenance and safety issues must always be considered before each new natural location is opened to the general public.

Geologic Resources

There has been a large amount of geological research in this region done, over the last twenty to thirty years, by Dr. Dabney "Dee" Caldwell, Professor Emeritus of Boston University. Professor Caldwell has been bringing groups of students to the area to conduct studies since the 1970s. Caldwell studies the Quaternary geology of New England, with emphasis on interpreting glacial deposits, groundwater and surface water hydrology, and the geologic history of the Northern Appalachians. Dr. Caldwell has published multiple writings regarding the geology of central Maine.

Archeological Resources

Dr. Nathan Hamilton, Associate Professor of Archeology in the Department of Geology and Anthropology at the University of Southern Maine, is Maine's most knowledgeable expert regarding the archeological resources in the project area. Hamilton grew up in Greenville and began studying many of the regional artifacts long before he embarked on his teaching career. Hamilton and his colleagues have done extensive work in the region and are the most credible experts.

Plants & Wildlife

The wildlife inventory is relatively complete for those species that are generally known, including a reference to sightings of the Canadian lynx. (There have been unofficial reports of wolf sightings, but these are not acknowledged by the State or referenced in the inventory.)

Birdlife

In addition to the birds mentioned, there are spruce grouse, Canadian jays, terns, golden eagles, red-tailed hawks and Canadian geese. Bob Duchesne has done extensive research on the birds of the region, which is posted on his website at www.mainebirdingtrail.com. Duchesne guides birding tours from local lodging facilities several times during the summer season. He has turned his research over to the Maine Office of Tourism for further development into a statewide publication for birders.

3.3 Addressing Potential Impacts

Tourism impacts are numerous and diverse according to Glenn Kreag, Professor of Tourism at University of Minnesota, in his article entitled *The Impacts of Tourism*. Although most people think of impacts as related to economics, jobs and taxes, tourism impacts are actually much broader. Addressing tourism impacts can facilitate planning and can help to ensure a more sustainable tourism industry.[35] Kreag has identified 87 impacts and divides them into seven categories, some actually caused by the tourists themselves and others directly related to the destination. Kreag's seven categories are:

[35] The Impacts of Tourism, Glenn Kreag, http://www.seagrant.umn.edu/tourism/pdfs/ImpactsTourism.pdf. Page 2.

1. Economic (addressed in Dr. Charles Colgan's report[36])
2. Environmental
3. Social and cultural
4. Crowding and congestion
5. Services
6. Taxes (addressed in Dr. Charles Colgan's report)
7. Community attitude

Each of these categories offers both positive and negative impact potential, but not all are applicable to every situation. It is incumbent upon community leaders to examine all impacts and analyze both the challenges and benefits which tourism can create to yield a well-balanced community or region.

3.4 Plum Creek's Sustainable Tourism Guidelines

An examination of Plum Creek's Sustainable Tourism Guidelines (STG) is appropriate in considering potential tourism impacts and tourism and destination impact factors.
Plum Creek Plan's Sustainable Tourism Guidelines:

Tourism facilities and operations in the Plan Area should be consistent with the following Sustainable Tourism Guidelines:

Regional context

- Participate, as appropriate, in community planning to provide tourism services, including gateway, interpretative, and directional signage, public information and education services, and visitor management plans;
- Help support the character of the North Woods with landscape scale conserved areas supporting nature based tourism;
- Ensure the tourist facilities fit the character of the region;
- Coordinate with traditional uses, including timber harvesting, non-intensive public recreation, and sporting camp operations;
- Ensure a harmonious relationship between the human and natural environment, with "stable and healthy communities and environments" that will sustain the landscapes that visitors pay to visit.

Scope/diversity of tourism development and activities

- Provide "destination driver" facilities that allow for brand recognition and confer a marketing opportunity for the region.
- Provide premium quality vacation experiences that have special appeal to visitors in the growing general tourism and outdoor recreation market segments.

[36] Colgan, Charles S., Ph.D., Estimated Economic Impacts of Implementing the Proposed 2006 Plum Creek Rezoning Plan in the Moosehead Area, March 2006.

- Provide high quality lodging combining nature, culture, events, food, lodging, and shopping opportunities geared to major market growth segments, such as general tourism and non-consumptive outdoor recreation.
- Strive to create 'high quality hospitality' for visitors, and an 'entrepreneur friendly' climate for the small businesses in the towns that serve the recreation economy.
- Provide quality accommodations and beautiful views, that "retain a sense of character and place, and connect tourism amenities to conserved lands, that provides for a profitable enterprise that reflects the local culture, and retains a sense of character and place—to protect the places we value for future generations."
- Provide for a diversity of tourism opportunities, including accommodations at varying income levels.

Facility design and construction

- Be designed with reference to natural, cultural, historical, and recreational activities.
- Be designed to be compatible with community character.
- Be designed to fit into the natural landscape, with environmentally high standards of operation.
- Be designed to be consistent with the nature-based tourism experience, with regard to scale, authenticity, and close connection to natural resources.
- Include, where practicable, "green construction", including use of materials, water, sewage and power supplies that encourage conservation (including, where applicable, in trail, golf course, and other recreation amenity designs).
- Use local goods and materials where practicable.
- Reflect local architectural styles.

Local Economy/Residents

- Design tourism services in conjunction with existing services, such as retail shops, gas stations, restaurants and inns.
- Collaborate with Maine guides and other local knowledgeable experts who can provide customized guided trips and tours to tourists.
- Use local capital, goods, services, labor and expertise as practicable.
- Ensure local residents have convenient access to tourist attractions, facilities and services.
- Engage and support, where appropriate and practicable, local artists, artisans and writers.
- Support involvement of residents in tourism management and benefits.
- Provide for large connected and conserved landscapes which sustain and allow for a nature-based economy to thrive.

Natural Environment

- Minimize impact on wildlife.
- Provide connectivity and co-ordination of nature-based uses, such as connectivity of trails and existing conserved areas.
- Maintain eco-system health.
- Provide for large connected and conserved landscapes which sustain and allow for a nature-based economy to thrive.

Tourism Activities

- Provide opportunities for visitors to experience remoteness.
- Provide for multi-sport outdoor activities such as hiking, bird and wildlife watching, mountain biking, whitewater rafting, kayaking, fall foliage viewing, cross-country skiing and snowmobiling.
- Continue to provide for opportunities for traditional tourism activities, such as hunting, fishing, camping, canoeing, snowmobiling, and winter back country uses, such as skiing, dog sledding, snow shoeing and other primitive recreation experiences.
- Support low impact tours and tour guide services.
- Provide tourists "a high level of service and amenities" , particularly with high end accommodations and dining opportunities, and provide for "'soft adventure' such as guided canoeing and kayaking trips, day hiking, cross country skiing, and watchable wildlife, including bird watching and moose viewing."
- Support "Share Your Heritage" itineraries, including tours on local arts and crafts, micro manufacturing, farming and value added food products, wood harvesting, and wood products.
- Support heritage tourism themed itineraries using community celebrations, museum and studio visits, treks on foot, bike, horse, snowmobile or canoe, meals featuring local food, shopping for local crafts and art, and learning new skills such as fly fishing or maple syruping.
- Provide for large connected and conserved landscapes which sustain and allow for a nature-based economy to thrive.

3.5 Evaluation of Sustainable Tourism Guidelines toward Impact Mitigation

Plum Creek has addressed many of the potential impacts that would be the likely result of the proposed resort development projects in their newly developed Sustainable Tourism Guidelines (STG) (see Section 3.4 above and the Plan Description, Parts V and VII).As the economic and tax impacts of the Plan are already estimated in Dr. Charles Colgan's study[37], only other potential impacts (from Kreag's list) of the Plan are discussed below.

[37] Colgan, Charles S., PhD., *Estimated Economic Impacts of Implementing the Proposed 2006 Plum Creek Rezoning Plan in the Moosehead Lake Area.*

Increase in Use of Infrastructure

Addressing Positives

Although this resort proposal will significantly increase visitation to the region upon full build-out, the realignment of the resorts within the existing travel corridors will keep the new development in areas with existing infrastructure and traffic. The resort areas are close to the service community to utilize and support, not compete with, the services offered there.

Access to the resorts will be convenient and will not require major changes in transportation corridors. Use of shuttles to transport visitors to attractions, shopping, and other activities will help to mitigate additional traffic impacts (See Transportation Section). The Sustainable Tourism Guidelines offer provisions for solid connections into the regional trail networks that will actually enhance the overall connectivity of the region through alternative modes of transportation.

Though no specific plans have been proposed to reuse old buildings, there are plans to rebuild in Lily Bay where there is historic precedent for a lodging facility. Under the Sustainable Tourism Guidelines, that facility should present a minimal intrusion on the landscape.

Addressing Negatives

As build out of the Plan occurs, the potential for overuse of infrastructure will need to be monitored by community leaders. There will be an impact on town parking areas, at trailheads, on local streets, etc. If substantial increases in certain locations are anticipated or noted, the community can address the issue before it becomes serious. Plum Creek has addressed architectural style in the Guidelines, recommending that the new structures blend with existing culture and also reflect the style of the grand historic Moosehead resorts.

Services

Addressing Positives

As the resort development occurs, more services and opportunities will be created for local residents to enjoy. New resort guests will also create a stronger market for business. Jobs, recreational activities, new special events, and new shops will come as the result of bringing new markets to the region. The entrepreneurial spirit runs strong in the rural region and will drive people to think of new ways in which to service visitors. Additionally, it is likely that more public services will be required at the resort to meet a larger demand at the community level, even though the resorts will meet some of their own needs at the facility level with fire protection and sewage treatment facilities.

Addressing Negatives

It falls to community and business leaders to be certain that non-tourist facilities continue to be maintained in a manner that is appropriate and satisfactory for everyone. Market demand drives business success. If business owners are to succeed, they must continually educate themselves regarding their markets and changing market expectations. Lack of good customer service, an unwillingness to serve, and poor business skills cause more business failures than increased competition. Business owners may be challenged through competition.

Tourist Factors

Community and business owners have control over many of the impacts stemming from increased tourism. The number of visitors brought to an area is driven by marketing efforts and targeted marketing. Both communities and individual properties can determine their own capacity factors and limit or focus their marketing to fulfill their personal goals.

Many housekeeping cottages throughout the region are seasonal in nature. Regardless of demand, that is a choice that ownership makes. Though physical facilities might allow for year round operation, the decision of whether or not to operate year round is at the discretion of the owners and can create limits on their income based on that decision.

The local chambers of commerce must exercise care in how and where they market. Careful wording of regional guides, ads and brochures create an expectation that must be fulfilled if visitors are to return for the second and third visit. Channels of distribution make a difference in determining who receives the marketing message. Markets can be chosen by demographics, such as education, age, activities, and income level. Careful attention must be given to these factors to exercise the control that is available.

Lacking public transportation, there is less control over arrivals and departures. Because most people will travel to the region by automobile, there will be an increase of vehicular traffic (See Transportation Section). Lodging facilities could exercise their collective power to stagger package check-in days and times if the necessity arises, but to this point, the region has not seen this as a problem. If passenger rail service returns to the region, with a stop near the Big Moose resort, this has the potential to set a pattern and schedule of influx and outflow of tourists. While the change in the number of visitors may be noticeable, other businesses can change their practices in order to anticipate these influxes, and can capitalize on them.

Destination Factors

Some destination factors are under the control of community leaders and others are inherent to the natural, geographic features and location of the community. The economy in the Jackman-Moosehead region has declined and, as we have seen in the historic context, has always benefited from tourism. Community leaders have worked hard to diversify the economy, but the fact remains clear that tourism and forestry continue to be the economic drivers, a fact which has not changed in more than one hundred years.

3.6 Mechanisms for Addressing Impacts

Managing Capacity through Visitor and Outdoor Education

There have been many discussions and much research regarding carrying capacity and the way in which to determine acceptable limits for sensitive natural resource areas. The National Park Service has been a leader in this research. There has been no definitive "best practice" that has proven to work effectively as a universal model. This is an area that the Center for Tourism Research and Outreach (CenTRO) of the University of Maine has been asked to research. Maine hopes to have better information on this issue in the future. It is important to recognize that limited access in some sensitive natural areas and for some specific recreational experiences may become important in the future to best utilize the landscape and protect the integrity of nature-based experiences.

FERMATA distinguishes three levels of "avidity" in the experiential market: novices seek a controlled and easy access experience without too much effort, mid-level participants want to get a little deeper into the natural world, but not totally immersed, and the avid nature lover will go as far as necessary to gain the full (and most fulfilling) impact of the natural experience. (See www.fermatainc.com for Ted Eubanks' PowerPoint explaining this premise.) The largest numbers of "experience" seekers fall within the first two categories. By providing levels of experiences that are planned and managed, the people who fall into the last category will be freer to engage in the full experience without intrusion from those far less experienced. Adopting this philosophy results in a far more rewarding experience for all levels of nature lovers.

Interestingly enough, the Natural Resource Education Center's [38] proposed programs for the Moosehead region is just such a service as Clare Gunn describes when he suggests that the majority of visitors may be satisfied with a well interpreted learning experience thus fewer numbers actually desire to explore the physical landscape. The NREC is proposed to be just such a "well-designed visitor center with exhibits, displays, audio-visual presentations, lectures, skits, and literature"[39]. Its development will help address some of the tourists' expectations.

John Simko, Town Manager of Greenville states, "There is a need for a region-wide visitor's center, preferably at the entrance to Greenville, which serves as the gateway to the Maine Woods. The Natural Resource Education Center (NREC) has an evolving plan for a facility to be located off Route 15 at the entrance to Greenville. There are discussions underway to create a Moosehead Outdoor Leadership education facility as part of the Greenville School campus. Such a center would not only host a variety of outdoor education providers who would offer fee-for-service opportunities to the general public, but would also integrate such services into the K-12 curriculum. Such well-known groups as the Appalachian Mountain Club and the Maine Winter Sports Center have each already integrated some programming into the Greenville Schools through local coordinating groups such as NREC and the summer Evergreen Enrichment Collaborative (EEC)."

[38] See complete *Natural Resource Education Center*, Implementation & Business Plan, Land Design Group, Environmental Planners and Designers, October, 1995.
[39] Gunn, p. 123

Plum Creek's Sustainable Tourism Guidelines include a provision for participation, as appropriate, "in community planning to provide tourism services, including ...public information and education services; and visitor management plans"
FERMATA also supports a gateway interpretive center in the Moosehead region, recognizing that a limited, controlled nature experience is all that some "new" nature participants are seeking. The NREC can be a valuable and integral component for overall management of the increased tourism brought by the Plan's resort development.

Diversification of the Tourism Product

It is important for the lodging providers in the Moosehead-Jackman region to work together toward creating more diversified lodging "experiences." The majority of the visitors coming to the region actively seek an outdoor recreational experience. This intention works well when the weather conditions are favorable for that experience, but when they are not, visitors don't come, and the area can suffer a significant economic decline in the span of one short season.

The only way to level the problematic swing in a region dependant upon tourism is to be proactive in finding alternate tourism product and packaging opportunities that have strong market appeal regardless of weather conditions. Spa treatments (hot tubs, Jacuzzis, massage therapists, etc.) for rest and relaxation, creative educational opportunities taught by artists and artisans (making a pottery bowl, learning to tie your own flies, making your own snowshoes, painting a landscape, etc.), and musical concerts are just a few of the many activities which could be incorporated into multi-priced packages.

Tourism product diversification needs to be accomplished, whether or not the resorts are approved. As the resorts become fully operational, the new resort infrastructure will add opportunities for many of the small bed and breakfasts, cabins and motel properties that currently have no indoor activity options. The lodging community could then offer a pleasant alternative to outdoor activities in adverse weather.

In the snow-limited winter of 2006, a few generally upscale lodging facilities that sell more than just an outdoor recreation experience continue to see a flow of people who come for the "experience" that the accommodation has created indoors. This kind of "experience" diversification is critically important to improve and enhance the lodging community and new resort facilities. Additionally, the Appalachian Mountain Club is proving that guided human-powered activities that do not depend upon great depths of snow can still be rewarding and result in a positive vacation if packaged and marketed well for the "experience."

Tourism Planning Must Be a Constant

Tourism is dynamic and constantly changing. Market demands change and the tourism providers have to be nimble to respond to the market quickly and efficiently. Successful planning requires creativity, innovation and constant feedback from businesses, visitors and all interest groups. The ultimate goal of tourism planning is to achieve balanced, integrative, slow-paced tourism development that fits the local community and values. Evaluating, tracking, monitoring and re-

visiting the planning process on a regular basis are required for long-term success in a resource dependant environment.

In conclusion, it appears that the Plum Creek Plan 2006 with its Sustainable Tourism Guidelines has made a good faith effort to ensure that the major concerns related to most tourism development projects are being considered and mitigated to the degree possible by the landowner. By focusing the new development in existing traffic corridors and near other infrastructure, by addressing visual impacts, design and architectural issues, natural resource concerns, and integrating the residential community with the new facility as much as possible, the Plan demonstrates overall value from a tourism perspective. Plum Creek's Sustainable Tourism Guidelines certainly show how potential impacts will be controlled. It is virtually impossible to guarantee that all impacts will be eliminated, yet the Plan appears to have taken a proactive approach to do just that.

Hammond Township
Pittston Academy Grant
Plymouth Township
Seboomook Township
Little W Township
Northeast Carry Township
Lobster Township
T3 R13 WELS
T3 R12 WELS
Big W Township
Blake Gore
West Middlesex Canal Grant
TX R14 WELS
T2 R13 WELS
T2 R12 WELS
Alder Brook Township
Soldiertown Township T2 R3 NBKP
Bald Mountain Township T4 R3
East Middlesex Canal Grant Township
Sandy Bay Township
201
6
Tomhegan Township
Days Academy Grant Township
T1 R11 WELS
Thorndike Township
Brassua Township
Kineo Township
Spencer Bay Township
Moose River
T1 R13 WELS
T1 R12 WELS
Dennistown Plt
Rockwood Strip T1 R1 NBKP
Long Pond Township
Rockwood Strip T2 R1 NBKP
Moosehead Lake
Lily Bay Township
Taunton & Raynham Academy Grant
Shawtown Township
Sandbar Tract Township
Frenchtown Township
TA R11 WELS
Sandwich Academy Grant Township
Jackman
6
15
Misery Gore Township
Attean Township
Sapling Township
Islands of Moosehead Lake
Beaver Cove
Parlin Pond Township
Misery Township
TB R11 WELS
Bradstreet Township
Big Moose Township
Bowdoin College Grant East Township
Harfords Point Township
Johnson Mountain Township
Chase Stream Township
Indian Stream Township
Bowdoin College Grant West Township
Cove Point Township
SOMERSET COUNTY
PISCATAQUIS COUNTY
Squaretown Township
Moosehead Junction Township
Elliottsville Township
Greenville
T7 R9 NWP
West Forks Plt
201
6
15
Katahdin Iron Works Township
Moxie Gore
Shirley
Barnard Township
Bowerbank

Map Area

LEGEND

- Plum Creek Land Subject to Resource Plan
- Townships under LURC Jurisdiction
- Logging Roads
- Public Roads
- ITS Snowsled Trails
- Appalachian Trail
- Proposed Hiking Trails
- Moosehead to Mahoosucs Trail
- Lily Bay Resort (Proposed Development)
- Big Moose Mountain Resort (Proposed Development)

IMPACT ANALYSIS FOR PLUM CREEK REZONING PROPOSAL

FIGURE TO-1: RECREATIONAL TRAILS AND RESORT LOCATIONS

0 2.5 5 Miles

Sources: MEDOT, MEGIS and Deluca-Hoffman Associates, Inc.
Map revised: May, 2006

N W E S

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4.0 Solid Waste Management & Disposal

4.1 Overview

The purpose of this section is to discuss historical solid waste management practices, inventory current solid waste management services, and assess the potential impact on the ability of municipal solid waste management facilities and services identified in the Plum Creek Plan (the "Plan") to transfer and/or dispose of municipal solid waste generated as a result of future development. "Municipal solid waste" means solid waste emanating from household and normal commercial sources. "Solid waste" means useless, unwanted or discarded solid material with insufficient liquid content to be free flowing, including but not limited to rubbish, garbage, refuse-derived fuel, scrap metals, junk, refuse, inert fill material and landscape refuse, but does not include hazardous waste, biomedical waste, septic tank sludge or agricultural wastes.

4.2 Historic Practices and Current Inventory/Operations

Maine has historically relied upon solid waste landfills to meet waste disposal needs. As early as 1976, the Maine Department of Environmental Protection reported a concern about the environmental and public health effects of existing disposal practices. Efforts at the state level, followed by new federal requirements, led to the closure of hundreds of old landfills statewide. These facilities were replaced by new facilities sited with higher regard for avoidance of continued environmental and public health impacts. The study area under discussion is no different, as three old landfills were closed consistent with the requirements of state landfill closure rules. Closure of the old facilities included the application of institutional controls which run with the land to ensure proper recourse for pollution abatement, should the need ever arise.

Current Practices and Identified Solid Waste Transfer or Disposal Facilities

The Plan identifies five (5) facilities targeted to handle solid waste generated as a result of future development. A total of 975 lots are described as future generators of solid waste. A further breakdown is provided below, based on locational and jurisdictional factors, which detail the number of total lots expected to send municipal solid waste to each facility.

The five identified facilities are listed below, along with the level of projected residential use:

1) Rockwood Transfer Station: 364 units
2) Piscataquis County Recycling & Transfer Station: 164 Units
3) Greenville Landfill: 324 units
4) Jackman Transfer Station: 79 units
5) Caratunk/Forks Waste Facility: 44 units

Facility Licensing Status

Solid Waste Disposal and Transfer Station facilities are regulated pursuant to Maine law and rule by the Maine Department of Environmental Protection (MDEP). Such facilities are required to obtain a license prior to commencement of operations, and must operate within set license parameters in order maintain the license. A review of MDEP records was conducted to confirm the licensing status of the subject facilities.

The MDEP records, and discussions with local/county officials, established the following:

Rockwood Transfer Station – This facility is an active licensed transfer station (DEP No. S-021371-WH-A-E), located in Taunton & Raynham Academy Grant. The licensee is the Somerset County Commissioners. The facility accepts municipal solid waste for consolidation and transfer to a secure commercial landfill facility located in Norridgewock, Maine. The County of Somerset has entered into an operating agreement with a private sector vendor who is responsible for providing operating personnel, equipment, and transportation services. Both bulky and non-bulky municipal solid wastes are placed in a 65 yard closed container equipped with a compacting unit. Staging (storage) areas for clean wood waste and metals are maintained. Staged metals are recycled and the clean wood waste is burned. The facility processes approximately 250 tons of municipal solid waste per year. The municipal solid waste transported to the Norridgewock commercial disposal facility is delivered under the County's waste disposal agreement. Transported loads average 18-19 tons per trip. The County of Somerset pays tipping fees of approximately $56.00 per ton. Provided that facility capital and maintenance investments are made, the useful life of transfer station facilities should be considered infinite. Further discussion of projected impacts on long term disposal capacity is provided below.

Piscataquis County Recycling & Transfer Station – This facility is an active licensed transfer station (DEP No. S-021136-WH-A-E), located in Lily Bay Township. The licensee is the Piscataquis County Commissioners. The facility accepts municipal solid waste for consolidation and transfer to a secure commercial landfill facility located in Norridgewock, Maine. The County of Piscataquis has entered into an operating agreement with a private sector vendor who is responsible for providing operating personnel, equipment, and transportation services. Both bulky and non-bulky municipal solid waste are placed in a 50 yard closed container equipped with a compacting unit. Staging (storage) areas for clean wood waste and metals are maintained. Staged metals are recycled and the clean wood waste is burned. The facility processes approximately 150 tons of municipal solid waste per year. The municipal solid waste delivered to the Norridgewock commercial disposal facility is delivered under the County's waste disposal agreement. Transported loads average 14-15 tons per trip. The County of Piscataquis pays tipping fees of approximately $56.00 per ton. Provided that facility capital and maintenance investments are made, the useful life of transfer station facilities should be considered infinite. Further discussion of projected impacts on long term disposal capacity is provided below.

Greenville Landfill – This facility is an active licensed municipal landfill (License No. S-010576-WB-A-N-S 010576-WB-B-R), located in Moosehead Junction Township. The licensee is the Town of Greenville. The facility accepts municipal solid waste for disposal for a

population of less than 15,000 people. Roughly 2,000 people use the facility currently . The original license was issued in 1985, with a re-issuance in 1995. The 2003 reported fill rate was 1,389 tons, with a remaining capacity of 60,723 yards. Each cubic yard of landfill airspace will likely hold between .6 and .75 tons of municipal solid waste. The airspace factor varies, depending upon waste stream composition, operations practices, and other factors. Assuming a factor of .6 tons per yard, at the conservative end of the range, the remaining life of the licensed airspace exceeds 26 years. However, the town of Greenville is contemplating a system change whereby certain quantities of bulky waste and construction/demolition debris would be accepted on-site and transferred to a solid waste disposal facility in Norridgewock for disposal. Such a system change could extend the remaining life of the landfill at least 33 percent.

Regulatory uncertainties have been raised concerning the ability of the facility utilize all of its remaining licensed solid waste disposal capacity. Local officials in Greenville recognize that the existing facility and its remaining airspace represent the best disposal option for their businesses and residents. The town of Greenville is actively engaged in efforts to preserve their right to utilize its remaining licensed airspace at the landfill facility.

Jackman Transfer Station – The town of Jackman is the licensee and site of the Jackman Transfer Station (DEP No. S-021357-WH-A-E). The facility accepts municipal solid waste for consolidation into 50 cubic yard containers for transfer to a secure commercial landfill facility located in Norridgewock, Maine. A total of 824 tons of bulky & non-bulky municipal solid waste was processed through the facility in 2004 (of which 267 tons were recycled), which is below the ten year average of 890 tons. Provided that capital and maintenance investments are made, the useful life of transfer station facilities should be considered infinite. Further discussion on projected impacts upon long term disposal capacity is provided below.

Caratunk/Forks Waste Facility – This facility is an active licensed municipal landfill (License No. S-005478-WB-A-N-S 005478-WB-C-R), located in West Forks. The licensees are Caratunk, the Forks, and West Forks. The facility is licensed to accept municipal solid waste for disposal for a population of less than 15,000 people. Fewer than 1,000 people use the facility currently. The original license was issued in 1989, with a re-issuance in 1997. The reported fill rate in 2003 was 492 tons, with remaining capacity of 8,706 yards. Each cubic yard of landfill airspace will likely hold between .6 and .75 tons of municipal solid waste. The airspace factor varies, depending upon waste stream composition, operations practices, and other factors. Using the same, conservative, factor of .6 tons per yard yields an estimated remaining life of the licensed airspace of more than 10 years. Note that some reports from state sources list the available remaining airspace as 38,000 cubic yards, which would yield a longer life for the facility. . The lowest estimate has been applied in this case.

Regulatory uncertainties have been raised concerning the ability of the West Forks facility to utilize all of its remaining licensed solid waste disposal capacity, and local views concerning the use of remaining licensed airspace are not known. However, it would be prudent for officials responsible for the management of this facility to be actively exploring alternatives in case the remaining licensed airspace cannot be utilized. Given the relatively low existing and projected quantities of solid waste handled at this facility, alternative arrangements should be reasonably available.

4.3 Future Conditions & Impacts

Projected Solid Waste Generation Rates

In order to assess future impacts, the total amount of solid waste expected to be generated as a result of future development needs to be projected. Then the amount of solid waste directed to each of the five facilities needs to projected, based upon jurisdictional and locational factors.

Projected Direct/Indirect Residential Rate of Solid Waste Generation

Ten years (1994 through 2003) of actual solid waste generation and recycling data was analyzed for the Jackman region to develop a per capita average of total solid waste generated, based upon 1,000 facility users. Based upon a ten-year average of 890 tons, the per capita generation rate is .89 tons annually. This per capita method is used to ensure that any additional indirect waste generation resulting from related economic activity is also accounted for. This is the basis for projecting waste generation in connection with lot development discussed in the Plan. The basis for generation rates for other types of development is outlined below.

Total Solid Waste Generated by Development Type

1) The Plan describes 975 lots for single family dwelling units or households. Based on a household size of 3 persons and 65 percent of the units occupied on a seasonal basis (5/12th's of each year) the total solid waste generated as a result of this development type would be 1,615 tons annually at full build out.

2) The Plan describes a large tourist facility with up to 500 units. Based on a per unit accommodation of 3 persons and 65 percent occupancy, year-round, total visitor days would equal 355,875 annually. Total visitor days multiplied by 4 pounds of municipal solid waste generation per capita, per day equals 712 tons annually at full build out.

3) The Plan describes a small tourist facility with a potential 250 units. Based on a per unit accommodation of 3 persons at 65 percent occupancy, year-round, total visitor days would equal 177,938 annually. Total visitor days multiplied by 4 pounds of municipal solid waste generation per capita, per day equals 356 tons annually at full build out.

Summary – Solid Waste Generation

The total municipal solid waste projected to be generated as a result of development described in the Plan would total 2,683 tons annually. Some portion of total generated waste would likely be separated for recycling, but impact assessment assumed no reduction in waste volumes due to waste reduction and recycling. The town of Jackman has realized a base recycling rate over the past ten years ranging from a high of 36.5 percent to low of 15.4 percent. The Town of Greenville's recycling program has come online more recently, thus historical data is not readily available. Recycling reports from the Rockwood and Piscataquis County Recycling & Transfer facilities are not readily available, thus less is known about these systems and their potential.

However, it is reasonable to assume at least a twenty percent recycling rate could be realized in the future for all facilities affected by the Plan.

Total Solid Waste Delivered to Identified Facilities

In order to assess solid waste management impact potential, the total amount of material expected to be delivered to individual facilities must be evaluated. Locational and jurisdictional factors were used to determine the total amount of solid waste likely to be delivered to each facility.

Rockwood Transfer Station:
Waste Sources: Housing 602 tons
Total Annual Waste Deliveries: 602 tons

Piscataquis County Recycling & Transfer Station:
Waste Sources: Housing 272 tons;
Small Tourist Facility 356 tons;
.
Total Annual Waste Deliveries 628 tons

Greenville Landfill:
Waste Sources: Housing 537 tons;
Large Tourist Facility 712 tons
Total Annual Waste Deliveries: 1,249 tons

Jackman Transfer Station :
Waste Sources: Housing 131 tons;
Total Annual Waste Deliveries: 131 tons

Caratunk/Forks Waste Facility :
Waste Sources: Housing 73 tons;
Total Annual Waste Deliveries: 73 tons

Impacts of Future Increases in Solid Waste Deliveries

Rockwood Transfer Station
Projected new annual deliveries of 602 tons at full build out represents a significant increase compared to current low level of quantities handled by the facility. Tipping fees and transportation expenses are variable based on volume, and will increase over time. The timing of actual increases in quantities is difficult to quantify, as the increases would relate to the rate at which concept development activities and land uses actually occur. The Plan's provisions require that lot creation be phased in over some period of time, and development activity will be affected by market conditions. Actual increases in the waste stream are also likely to differ from projections. A benefit of phased in increases in waste quantities would be that any facility modifications could be based upon actual conditions as they occur over time.

Rockwood Fiscal Impacts

At full build-out, new tipping fees could total about $33,700 annually, at current prices. These prices could be expected to increase over time following general inflationary trends. At full build-out, new transportation costs would be about $12,000 annually, at current costs. These prices could be expected to increase over time trending at or above general inflationary conditions.

At current levels of service, operations and management costs should not increase significantly, but rather some economies of scale would be realized through increased waste quantities. Some need for transportation equipment redundancy could be expected at some point in the future, but given current payloads and anticipated new waste quantities, waste transfer should still be about one load per week on average. Increased bulky waste quantities could be difficult to service with existing equipment. This concern could be mitigated by directing that certain commercial quantities of bulky waste/construction debris be consolidated on-site in roll-off containers for direct delivery to the disposal facility of choice. Accommodation of future public demand for increased level of service could also lead to increased operations, maintenance and equipment replacement costs. The likelihood of such demands and accommodations is difficult to predict, but near-term service arrangements should provide for this future possibility.

Piscataquis County Recycling & Transfer Station

Projected annual deliveries of 628 tons at full build out, represents a significant potential increase compared to current low level of quantities handled by the facility. Tipping fees and transportation expenses are variable based on volume, and will increase over time. The timing of actual increases in quantities is difficult to quantify, as the increases would relate to the rate at which development activities and occupancy actually occur. The Plan's provisions ensure that lot creation will be phased in over some period of time. In addition, the timing of development activity will be affected by market conditions. Actual increases in the waste stream are also likely to differ from projections. A benefit of phased in increases in waste quantities is that any necessary facility modifications can be based upon actual conditions as they occur over time.

Piscataquis County Recycling & Transfer Station Fiscal Impacts

At full build-out, new tipping fees could total about $35,200 annually, at current prices. These prices could be expected to increase over time following general inflationary trends. At full build-out, new transportation costs would be about $14,500 annually, at current costs. These prices could be expected to increase over time, trending at or above general inflationary conditions.

At current levels of service, operations and management costs should not increase significantly, but rather some economies of scale would be realized through increased waste quantities. Some need for transportation equipment redundancy could be expected at some point in the future, but given current payloads and anticipated new waste quantities, waste

transfer should still be about one load per week on average. Increased bulky waste quantities could be difficult to service with existing equipment. This issue could be mitigated by directing that certain commercial quantities of bulky waste/construction debris be consolidated on-site (in roll-off containers) for direct delivery to the disposal facility of choice. Accommodation of future public demand for increased level of service could also lead to increased operations, maintenance and equipment replacement costs. The likelihood of such demands and accommodations is difficult to predict, but near-term service arrangements should provide for this future possibility.

Greenville Landfill

With total new annual deliveries of 1,249 tons at full build out, new tipping fees could total up to $162,800 annually (based upon the most recent available landfill budget expenses, divided by the reported 2003 fill rate). Where the Greenville Landfill is a disposal facility, there would be no additional transfer/transportation costs once solid waste is accepted at the facility.

The 2003 reported fill rate was 1,389 tons with remaining capacity of 60,723 yards. Each cubic yard of landfill airspace may hold between .6 and .75 tons of municipal solid waste. The airspace factor varies depending upon waste stream composition, operations practices, and other factors. Using a factor of .6 tons per yard, at the conservative end of the range, the remaining life of the licensed airspace exceeds 26 years. The amount of new solid waste generated as a result of the development is projected to be 1,249 tons annually, or roughly twice the current fill rate. This could reduce the expected life of the current facility by one-half or 12-13 years.

Should the town of Greenville discontinue landfilling of certain bulky wastes including construction/demolition debris, available remaining landfill airspace would be impacted considerably less. Based on current conditions, remaining life would be extended from 26 years to over 39 years. New solid waste, totaling 837 tons annually without certain bulky wastes, would reduce the expected life of the current facility from 39 years to about 20 years. Above-stated new tipping fee costs would change as a result of certain quantities of bulky wastes being directed to bypass the Greenville landfill for direct disposal at an alternative disposal facility.

The Town of Greenville has expressed concerns that any future disposal alternative will be more costly compared to the present, locally available, disposal option. In recent years, the Town has acted to implement solid waste recycling initiatives to preserve the remaining licensed airspace for as long as possible. The future availability of the facilities' remaining licensed airspace will likely be determined independent of any additional waste quantities that may be generated as a result of Plum Creek's Plan. However, despite the availability of sufficient disposal capacity at competitive rates (see section 5.3.6 below), solid waste generated as a result of development created through implementation of the Plan could have an adverse fiscal impact on the town of Greenville. Due to the potential for significant reduction in the landfill's remaining licensed capacity, consideration should be given to mitigation of this potential adverse fiscal impact.

Jackman Transfer Station

With total new annual deliveries of 131 tons at full build-out, new tipping fees could total about $9,000 annually, at current prices. These prices could be expected to increase over time, following general inflationary trends. At full build-out, new transportation costs would be about $4,300 annually, at current costs. These prices could be expected to increase over time, trending at or above general inflationary conditions.

At current levels of service, operations and management costs should not increase, but rather minimal economies of scale would be realized through increased waste quantities. Increased waste quantities can be absorbed into operations without concern for impact on fixed costs.

Caratunk/Forks Waste Facility

At full build out, new tipping fees could total up to $7,300 annually (assuming total disposal cost at $100.00 per ton). Since the Caratunk/Forks Landfill is a disposal facility, there would be no additional transfer/transportation costs once solid waste is accepted at the facility.

With total annual deliveries projected to be 73 tons, the useful life of existing airspace could be expected to be marginally reduced by about 15 percent – from 10 years to 8.5 years. However, this decrease in useful life of the facilities existing licensed airspace will likely be hedged due to market-based phasing in of future development. Therefore, the impact on the existing licensed capacity is negligible. Tipping fees are also variable based on actual volume, and will increase over time, tracking actual inflationary and/or actual future costs. Actual increased quantities will only occur at the time that lot development activities and occupancies actually occur. The Plan's provisions require that lot creation be phased in over some period of time, and the timing of actual development will be affected by market conditions. Actual increases in waste quantities are likely to differ from projections. A benefit of phased in increases in waste quantities is that any necessary facility modifications can be based upon actual conditions as they occur over time. Waste deliveries on the order projected would have no appreciable impact on future operations and management costs.

Impact on Future Disposal System Capacity and Market Conditions

Solid waste management planning practice typically includes assessment of contingency conditions in case current disposal options became unavailable for some reason. There is no foreseeable reason that the (3) three transfer stations identified would not be available indefinitely. They each deliver solid waste to a commercial waste disposal facility located in Norridgewock, Maine. This facility holds the majority of the state's commercial waste disposal capacity, with approximately 4,000,000 cubic yards of available airspace. This available airspace is a secure landfill, recently licensed in conformity with state law. The projected quantities that may be delivered to this facility in the future as a result of the implementation of the Plum Creek Plan will have no appreciable impact on future capacity or service capability.

In addition, the state of Maine recently purchased a landfill in the City of Old Town to meet the future needs of Maine's citizens and businesses. This facility makes available an additional 9,000,000 cubic yards of airspace. This facility is operated by a private operator who has assumed commercial risk in the project. Consumer protections were established in the contract between the parties in the form of a maximum ceiling price structure to insulate consumers against future price spikes. In addition, the State of Maine holds in reserve about 2,000,000 yards of capacity in an undeveloped, permitted landfill site in T2 R8 (near Lincoln, Maine). Moreover, in-state options for agreements with waste-to-energy facilities would also likely be available. For example, a pubic/private facility located in Orrington, has reached agreement with municipalities and counties adjacent to the study area on long term contracts at $54.00 per ton through 2018. In sum, there is currently more capacity to handle solid waste in Maine today than at any time in the state's history.

The Maine State Planning Office, in its December 2004 report to the Maine legislature, stated, "There are no impending short-term disposal capacity gaps and there do not appear to be current or projected disposal fees would be considered Supracompetitive. Supracompetitive, as applied to prices, means prices that are higher than they would be in a normally functioning, competitive market – usually as a result of over concentration, collusion or some form of monopolistic practice."

The Maine State Planning Office further reports that "[T]oday's solid waste management system is functioning well and should continue to do so in the foreseeable future" The amounts of solid waste presently (3,171 tons) and projected (2,683 tons) to be served by existing facilities totals 5,854 total tons – or Three-One Thousandths of 1 percent of the annual statewide total. The state of Maine's system of public and private solid waste management infrastructure currently handles about 2,000,000 tons of solid waste annually. If the facilities identified herein are not available in the future to handle some or all of the municipal solid waste for some reason, the statewide system could conveniently and easily absorb current and projected waste quantities without any material impact on disposal capacity or market conditions.

Recommended Mitigation Strategies to Address Projected Impacts to County and Local Governments

1. Area Transfer Stations – The anticipated increased use of the three identified transfer stations should not have a material impact on their continued function. The facilities operated by the counties of Piscataquis and Somerset may have difficulty handling commercial quantities of Construction/Demolition Debris with their existing containers. Each county might consider mitigating that potential problem by directing that certain commercial quantities of these materials be delivered directly to a disposal facility.

2. Greenville Landfill Contingency – Uncertainties over the future of the Greenville Landfill present a significant issue. An early closure due to regulatory requirements, while unrelated to the Plan development proposal, would mean that present and future generators of municipal solid waste in the area would expect the Town of Greenville and the Counties of Piscataquis and Somerset to arrange for the best available alternative. These entities should continue, or consider engaging in, cooperative contingency

planning for an alternative disposal option. While the future of the remaining licensed airspace at the Greenville Landfill remains unsettled, each county should consider opportunities for integration with Greenville and its current contract users into a future regional transfer facility.

3. Greenville Landfill Full Use – There is risk that solid wastes generated as a result of new development could significantly reduce the remaining licensed capacity of the Greenville Landfill and cause existing facility users to find an alternative system sooner than would have otherwise occurred – all at a higher cost. The Plum Creek Plan includes an offer of 25 acres to the town of Greenville for the purpose of siting a regional solid waste transfer station or landfill as partial mitigation for negative impacts from Plan-induced development.

   In addition to this offer of land, we recommend Plum Creek include in its Plan a provision that it will pay Greenville an impact fee to cover any increased cost to Greenville residents that may be caused by loss of existing licensed airspace at the landfill due to disposal of solid waste generated from Plan-induced development. The payment terms can be negotiated between the Town and Plum Creek.

4. Funding of Additional Variable Solid Waste Costs (Transportation/Disposal Costs) – Municipalities and counties typically raise funds to pay solid waste tipping fee and transportation costs from taxation or user fees, or some combination thereof. The future additional costs discussed in this chapter should be evaluated by the respective towns and counties in the context of overall local fiscal policy

5.0 Education

5.1 Overview

This section outlines and evaluates impacts to the educational system in the Plan Impact Area from the Plan's proposed development.

As development occurs throughout the region, the demand for educational services will most likely increase. The inventory of current infrastructure and personnel described below will provide the framework for analyzing the Plan's impacts in this area.

Educational services are provided through the State Department of Education and the local communities. Each organized community is responsible for either establishing a school department, or becoming a tuitioning member of a school Union, District or Department. Educating the students who reside within Unorganized Territories of the State is the responsibility of the State Department of Education's division of Education in the Unorganized Territories. Students are taught according to defined learning standards established by the Department and are monitored with standardized testing. Each community, union, or district is responsible for the administration, education and maintenance of the staff, students and facilities. The identified development areas within Plum Creek's Rezoning Plan are serviced by the Towns of Jackman, Greenville, Beaver Cove, Shirley, Moose River and the surrounding Plantations and Unorganized Territories. School Union #60, Maine School Administrative District #12, and the Rockwood Elementary School (Education in the Unorganized Territories) provide educational service within the region. The Towns of Jackman and Moose River are members of Maine School Administrative District #12, (SAD #12) The Towns of Greenville, Beaver Cove, Shirley, Willimantic, and Kingsbury Plantation are members of Maine School Union #60 and operate two schools in Greenville and one in Shirley. See Figure ED-1 Educational System, for the location of local schools in and around the proposed Plum Creek Plan Area and in the Plan Impact Area.

5.2 Historic and Current Inventory/Operations

<u>Maine School Administrative District # 12 (Jackman, Moose River)</u>

School Administrative District #12 serves the communities of Jackman and Moose River. Currently, through tuition arrangements with the state of Maine, MSAD #12 accepts students from the unorganized territories of Dennistown Plantation, The Forks Plantation, West Forks, Long Pond Township, Lake Parlin Township, Holeb Township, and Enchanted Township. Only one of these townships, Long Pond, is within the Plan Area.

District #12 Facilities

Forest Hills Community School

Built in 1961, the Forest Hills Consolidated School contains separated wings for each educational level. Originally built to house the elementary (K-5) and High School (9-12) students, additions were completed in 1985 and 1988. The first expansion added space to house the home economics and industrial arts departments, as well as create office space for the administration services of SAD#12. In 1998, an addition was completed to house the middle school students as the community vacated the Sacred Heart Convent building they had been recently attending. At that time, a commons area, library, kitchen, locker rooms, and a separate special education department were created.

This expansion created its own separate wing for each educational level (elementary, middle, and high school), while sharing the gymnasium, home economics, industrial areas, a common dining area, and library.

District #12 Students

MSAD #12 and the Forest Hills Community Schools house local school-aged children in grades K-12. The majority of the schools' student body consists of residents from the towns of Jackman and Moose River.

Overall enrollment for SAD #12 over the past ten years has steadily declined. Table 5-1 shows that, from 1995 to 2005, total student enrollment dropped from 241 to 186 students in grades K-12 (a 22.82 percent decline). While secondary education enrollment has remained stable over the ten year trend, with a high of 72 and a low of 58 students, there has been a drop in enrollment at the elementary level, from 176 students in 1995 to 117 students in 2005 (a net loss of 59 students over the ten year period).

Table 5-1

MSAD #12 October Enrollments											
Total Enrollment											
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Total Elem	**176**	**169**	**153**	**138**	**134**	**134**	**132**	**128**	**123**	**122**	**117**
Total Sec	**65**	**58**	**63**	**66**	**72**	**69**	**66**	**69**	**64**	**68**	**69**
Grand Total	**241**	**227**	**216**	**204**	**206**	**203**	**198**	**197**	**187**	**190**	**186**
% Change		**-5.81%**	**-10.37%**	**-15.35%**	**-14.52%**	**-15.77%**	**-17.84%**	**-18.26%**	**-22.41%**	**-21.16%**	**-22.82%**

Table 5-2 shows that resident student enrollment within the Towns of Jackman and Moose River remained consistent with the trends of the overall enrollment. Secondary enrollment has remained stable and is currently above the 10 year average (of 62.8 students). The decline in

elementary students has stabilized somewhat over the last seven years, after taking a marked decline over the first three years of the trend. Elementary enrollment fell by 42 students (25 percent) over the four year period from 1995-1998, and has continued to decline to a low of 105 students in October of 2005.

Table 5-2

MSAD #12 October Enrollments											
Total Resident Enrollment (Jackman and Moose River)											
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Total Elem	**170**	**163**	**147**	**128**	**122**	**119**	**117**	**117**	**112**	**109**	**105**
Total Sec	**61**	**53**	**61**	**63**	**69**	**64**	**64**	**66**	**62**	**65**	**63**
Grand Total	**231**	**216**	**208**	**191**	**191**	**183**	**181**	**183**	**174**	**174**	**168**
% Change		**-6.49%**	**-9.96%**	**-17.32%**	**-17.32%**	**-20.78%**	**-21.65%**	**-20.78%**	**-24.68%**	**-24.68%**	**-27.27%**

MSAD #12 accepts students from the surrounding area through inter-local agreements and an arrangement with the Maine Department of Education's program for the Unorganized Territories. As Table 5-3 shows, MSAD #12 has seen an increase in tuitioned students sent from the Unorganized Territories to Forest Hills Community School over the last 10 years. As the number of secondary students has remained fairly constant (a high of 6 and a low of 2), the increases in elementary population doubled from 6 to 12 in the same time period.

Table 5-3

MSAD #12											
October Enrollments											
Tuitioned Enrollment											
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Total Elem	**6**	**6**	**6**	**10**	**12**	**15**	**15**	**11**	**11**	**13**	**12**
Total Sec	**4**	**5**	**2**	**3**	**3**	**5**	**2**	**3**	**2**	**3**	**6**
Grand Total	**10**	**11**	**8**	**13**	**15**	**20**	**17**	**14**	**13**	**16**	**18**
% Change		**10.00%**	**-20.00%**	**30.00%**	**50.00%**	**100.00%**	**70.00%**	**40.00%**	**30.00%**	**60.00%**	**80.00%**

Enrollment of students from within the Unorganized Territories, Plantations and Townships is based upon need. The Maine Department of Education and its program of Education in the Unorganized Territories monitors and pays for the education of students located within the unorganized territories. Placement of these students is based upon the proximity of residents with school-aged children to the school. Student tuition is based upon state averages and weighted formulas for costs of education at the local level.

From 1995 to 2005, MSAD #12 has accepted students from seven different unorganized townships and plantations (See table 5-4 for the individual tuitioning communities and their enrollments). Enrollment at SAD #12 from the UT's has increased by 6080 percent (representing 8 additional students) over the last ten years, but currently (2005) contributes only 10.7 percent of the total student population.

Table 5-4

MSAD #12											
October Enrollments- Tuitioned Students											
UT and Plantations		**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**
Dennistown Plt	All	4	4	3	5	5	5	6	4	3	4
The Forks Plt	All	0	0	0	0	0	6	4	4	3	3
West Forks Plt	All	0	0	0	0	0	0	0	0	0	2
Long Pond Twp	All	6	6	5	7	9	8	5	4	7	7
Holeb Twp	All	0	0	0	1	0	0	0	0	0	0
Parlin Twp	All	0	0	0	0	1	1	2	2	0	0
Spencer Bay Twp	All	0	1	0	0	0	0	0	0	0	0
TOTAL		**10**	**11**	**8**	**13**	**15**	**20**	**17**	**14**	**13**	**16**

District #12 Transportation

Transportation is provided for students residing within the District and is allocated and paid for within the SAD's budget. Transportation for students tuitioned into the District from the unorganized territories and out lying communities is left up to the State or the individual community. There is currently an array of efforts for each township and group of children. The State contracts with local providers to transport children to school, providing transportation to family members who are paid to transport their children to school. An out-lying community can also contract with the State for the use of its buses to pick up children along the way.

District #12 Extra services

Adult Education: SAD #12 provides an adult education program for area residents and offers college courses via satellite through the University of Maine's Education Network of Maine. The District also offers service to help them prepare for and obtain a General Education Diploma (GED).

Members of the Leadership Team who support and assist the program include the Superintendent, the *Live to Learn* Coordinator and Assistant, one member of the School Board, representatives from district partners, and other community volunteers. The programs district partners are: Jackman Region Community Association, Jackman-Moose River Chamber of Commerce, Plum Creek Timber Company, and the Jackman Region Health Center.

The goal of the *Live 2 Learn* program is to improve education and to develop a community of lifelong learners. Activities linked to improving education, particularly improving student/parent reading and math skills, will receive priority. *Live 2 Learn*

also provides cultural, recreational, and athletic opportunities, offering summer athletic instruction in baseball, basketball, tennis and soccer. After school tutoring and library education programs are also being developed to increase students' interest in education.

District #12 Budget and Financial Capacity

School expenditures are measured in two different but distinct manners: the per-pupil expenditure and the local mil rate. The most informative number is the actual costs associated with educating an individual student. The per-pupil costs reflect the ratio of costs to the administrative unit, or school department, to educate each student, while the mil rate reflects the community tax burden from the costs of school operation and education.

Per-pupil expenditures: The per-pupil operating costs for MSAD #12 are shown in Table 5-5 below. From 1993-2003, SAD #12 has seen consistent and substantial increases in per pupil operating costs. The District's rank among schools in the State of Maine also decreased significantly. This decrease in rank and increase in expenditures per student is directly related to the decrease in student population. A direct correlation exists between the costs of education and the number of students enrolled.

SAD #12 per-pupil operating costs for fiscal years 1993-2003 are shown in the following table. Most of the school unit's costs are represented by these amounts. Costs for administrative and special programs are occasionally excluded.

Table 5-5 shows that, within SAD #12, the Per-Pupil Operating Costs ranking fluctuates from year to year (high of 100 and a low of 35). MSAD #12 has remained in the top 25% of the most expensive schools for the last ten years.

Table 5-5

PER PUPIL OPERATING COSTS, MSAD NO. 12

YEAR	SAD #12 P.P.O.C.	RANK	MEDIAN
1993-94	$4703	UNK	$4286 (132)
1994-95	$4857	76/264	$4417 (132)
1995-96	$4846	100/264	$4635 (132)
1996-97	$5336	65/264	$4938 (132)
1997-98	$5753	56/264	$5036 (132)
1998-99	$6441	35/261	$5317 (131)
1999-00	$6466	64/261	$5755 (131)
2000-01	$7049	55/261	$6188 (131)
2001-02	$7249	80/261	$6640 (131)
2002-03	$8,162	55/261	$7019 (131)

Local Property Tax Rate for Education (Mil Rate): Local property taxpayers pay for a portion of their schools' operating and administrative costs. The local taxpayers' share of school costs is indicated by the mil rate or the property tax dollars raised for each $1,000 of taxable property. The mil rate of SAD #12's participating member communities and available surrounding townships for recent school years and the corresponding statewide average mil rate is shown in the following table.

Table 5-6

Local Mil Rate For MSAD #12 Communities and Feeder Communities					
Year / **Community**	**1999-2000**	**2000-2001**	**2001-2002**	**2002-2003**	**2003-2004**
JACKMAN	12.62	13.16	12.8	13.14	15.38
MOOSE RIVER	12.63	11.82	13.47	13.5	15.89
DENNISTOWN PLT	5.54	5.19	6.97	4.55	4.6
THE FORKS PLT	3.15	4.17	N/A	5.66	4.57
WEST FORKS	11.65	12.39	9.36	10.37	9.25
State Average	11.29	11.63	11.87	11.62	10.92

The table shows that the schools have caused local mil rates to increase over the past five years, while enrollment has declined. The communities of Jackman and Moose River have seen significant increases in their mil rate, while the State average has declined.

Maine School Union #60 (Greenville, Shirley, Beaver Cove, Willimantic)

School Union #60 is an administrative collaboration of school departments.. School Union #60 includes the community school departments of Greenville, Beaver Cove, Shirley, Willimantic, and Kingsbury Plantation. The unorganized Townships and Plantations that surround Greenville tuition their students to School Union #60 through an arrangement with the Maine Department of Education.

Union #60 Administration

Maine School Union #60 is administered by a Board of Directors and Superintendent. The five member Board of Directors is comprised of member representatives from each community's school board or committee. The Superintendent's office is located in Greenville and is housed on the Greenville School Department Campus. The Superintendent, a bookkeeper, an executive secretary, and accounts payable personnel, are located in this office and oversee the Greenville and Shirley School Department facilities.

Greenville School Department

The Greenville School Department is operated as a governmental entity of the Town of Greenville. As an active member of Maine School Union #60, the Greenville School

Department educates a majority of students from Greenville, neighboring communities, and the surrounding unorganized townships and plantations.

Union #60 Facilities

The campus of the Greenville School Department is located in the center of Greenville. The campus consists of three separate buildings and athletic fields.

Nickerson Elementary School: Built in 1962 of cinderblock and steel (a "Butler Building"), the Nickerson Elementary School is home to grades K-5. The ten classroom facility houses special education, art and reading recovery services for elementary aged students and utilizes the Pritham gymnasium for athletic education.

Greenville Middle/High School: Built in 1935, The Oakes Building houses the Greenville Middle School/High School. Students from grades 6-12 attend classes in a well built structure with exceptional historic architecture.

Pritham Gymnasium: Pritham Gymnasium is the third facility on the campus grounds and provides space for physical education classes and other athletic/social events.

Athletic Facilities: The athletic fields provide facilities for track and field practices (but are not suitable for sanctioned events), soccer, baseball, and softball. Recent additions to the athletic facilities include a quarter mile roller-oval, sand volleyball, outdoor basketball and tennis courts, and a combination ice-rink/skateboard park, most of which are maintained by the Town of Greenville.

Union #60 Student Body

Maine School Union #60 and the Greenville area schools include local school-aged children in grades K-12. The majority of the schools student body comes from the Town of Greenville. The Union also accommodates students from neighboring communities and the regional unorganized townships and plantations.

Overall, enrollment for Union #60 over the past ten years has steadily declined. As seen in Table 5-7, from 1995 to 2005, total student enrollment has steadily declined from 449 to 271 students in grades K-12 (or a 40 percent decline).

Table 5-7

School Union #60											
October Enrollments											
Total Enrollment											
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Nickerson Elementary	**264**	**269**	**266**	**255**	**239**	**214**	**212**	**198**	**174**	**158**	**162**
Shirley Elementary	**21**	**22**	**17**	**8**	**11**	**11**	**10**	**13**	**9**	**10**	**14**

Total Elem	**285**	**291**	**283**	**263**	**250**	**225**	**222**	**211**	**183**	**168**	**176**
Total Sec	**131**	**105**	**102**	**112**	**119**	**123**	**123**	**116**	**106**	**108**	**95**
Grand Total	**416**	**396**	**385**	**375**	**369**	**348**	**345**	**327**	**289**	**276**	**271**
% Change		**-5%**	**-7%**	**-10%**	**-11%**	**-16%**	**-17%**	**-21%**	**-31%**	**-34%**	**-35%**

Table 5-8 shows that resident enrollment within Greenville has remained consistent with the trends of overall enrollment. Secondary enrollment has remained fairly stable and is now slightly above the 10 year average of 87 students. However, the decline in elementary students has dropped consistently over the last ten years. Elementary enrollment has decreased by 98 students over the ten year period from 1995 to 2005.

Table 5-8

School Union #60											
October Enrollments											
Total Resident Enrollment (Greenville)											
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Total Elem	**234**	**231**	**220**	**220**	**210**	**186**	**181**	**171**	**147**	**130**	**136**
Total Sec	**81**	**77**	**79**	**83**	**93**	**97**	**94**	**98**	**90**	**89**	**77**
Grand Total	**315**	**308**	**299**	**303**	**303**	**283**	**275**	**269**	**237**	**219**	**213**
% Change		**-2%**	**-5%**	**-4%**	**-4%**	**-10%**	**-13%**	**-15%**	**-25%**	**-30%**	**-32%**

Union #60 Feeder Communities and Unorganized Territories

Maine School Union #60 accepts students from the surrounding area through an arrangement with the Maine Department of Education's program for education in the Unorganized Territories. As Table 5-9 shows, over the past ten years the Union has also seen a decrease in feeder community and tuitioned students sent to Greenville from the surrounding communities.

Table 5-9 shows that the decline in the number of secondary students has slowed since a major drop in 1995-1996 (from 50 students to 28 students). Elementary student enrollment has remained fairly constant, peaking in 1997 with 46 students, then dropping back down to the average and remaining constant.

Table 5-9

School Union #60											
October Enrollments											
Tuitioned Enrollment											
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Total Elem	**30**	**38**	**46**	**35**	**29**	**28**	**31**	**27**	**27**	**28**	**26**
Total Sec	**50**	**28**	**23**	**29**	**26**	**26**	**29**	**18**	**16**	**19**	**18**
Grand Total	**80**	**66**	**69**	**64**	**55**	**54**	**60**	**45**	**43**	**47**	**44**
% Change		**-18%**	**-14%**	**-20%**	**-31%**	**-33%**	**-25%**	**-44%**	**-46%**	**-41%**	**-45%**

Table 5-10 below shows the communities that have contributed to student enrollment in School Union #60 and the Greenville schools from 1995-2004. There has been a significant decline in student enrollment from the Unorganized Territory and surrounding communities.

Table 5-10

Feeder Communities		**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Shirley	6-12	22	12	10	10	12	10	12	8	6	7	5
Beaver Cove	All	14	10	8	8	8	8	10	5	4	7	9
Rockwood Plt	5-12	22	25	25	27	26	27	22	21	17	19	17
Moosehead Jct Twp	All	12	8	14	12	4	6	11	6	9	9	7
Big Moose Twp	All	0	0	0	0	0	0	0	1	1	2	3
Lily Bay Twp	All	1	2	3	2	2	0	1	1	1	1	1
Harfords Point Twp	All	8	8	8	4	3	3	4	3	5	2	1
Elliotsville Plt	All	0	0	1	1	0	0	0	0	0	0	0
Kingsbury Plantation	All	0	0	0	0	0	0	0	0	0	0	0
Total Enrollment		**79**	**65**	**69**	**64**	**55**	**54**	**60**	**45**	**43**	**47**	**43**

Enrollment of students from the Unorganized Townships and Plantations is based upon need. The Maine Department of Education and its program of Education in the Unorganized Territories monitor and pays for the education of students located within the unorganized jurisdictions. Placement of these students is based upon the presence and proximity of residents with school aged children to the school. Payment for the education of these students is based upon State averages, and weighted formulas for costs of education at the local level.

From 1995 to 2004, School Union #60 has accepted students from seven different unorganized townships and plantations. Enrollment from the UT's and surrounding communities has decreased almost 50 percent over the last ten years, and currently (2004) contributes only 17.0 percent of the Greenville School's student population.

Union

Union #60 Transportation

Transportation for students residing within School Union #60 (Greenville, Beaver Cove, Shirley, Willimantic, and Kingsbury Plantation) is provided by the School Union via an outside contract for students educated within the Union. If a student elects to attend a school outside of the Union, the student is responsible for his or her own transportation.

Union #60 Extra Services

Adult Education: Adult education programs are offered through School Union #60. The Greenville School Department offers adults and non-traditional student's service to prepare and assist them in obtaining a General Education Diploma (GED) and provides other courses allowing area adult residents an opportunity to refresh or learn new skills.

Jobs for Maine Graduates: The Jobs for Maine's Graduates Drop-Out Recovery Program is a state funded program that works with high school aged students who have dropped out (or are at risk of dropping out) and want to return, succeed in school, graduate and obtain work.

Union #60 Budget and Financial Capacity

Finances for educating the students of the School Union are the responsibility of each community. Funds are appropriated annually at local town meetings for payment of educational services for students within the individual community. As community schools establish budgets for the year, a per-pupil expenditure level is calculated and used to determine the tuitioning rate for non-resident students. The division of Education in the Unorganized Territories reimburses the School District or Local School Department for the costs of educating each student located in the UTs.

Education in the Unorganized Territories

The Division of State Schools – EUT (Education in the Unorganized Territory) is responsible for the provision of educational services for resident pupils in Maine's unorganized territories (UT). The EUT is a division within the Maine Department of Education, and operated by the Commissioner of Education. The Director of State Schools EUT is responsible for the day-to-day operation and administration of the Division, and the delivery of a comprehensive range of elementary, secondary and special education services.

There are 422 townships within the 10.5 million acres of unorganized territory (52 percent of the state's land area), with a population of under 8,000 year round residents. Approximately 1,200 pupils are legal residents of the UT, with 200 pupils attending one of the six elementary schools operated by the Division. The remaining 1,000 pupils are tuitioned by the Division of Schools to the nearest public school system. Those pupils who reside in remote or geographically isolated areas of the UT receive educational services through a variety of alternative programs, such as home schooling or boarding schools.

The Director of the Education in the Unorganized Territories decides which school the students may attend. The decision is based upon proximity to the nearest school, transportation, finances for, and availability of placement of these students into classrooms. All UT schools and pupils are funded through taxation of the Unorganized Territory and appropriated funding sources.

Currently, students from Pittston Academy Grant, Plymouth Township, Big W, Little W, West Middlesex Canal Grant, Soldiertown Township, Brassua Township, Tomhegan Township and Taunton & Raynham Academy Grant send their students to the Rockwood Elementary School for grades K-4, and are then tuitioned to Greenville Middle/High School for grades 5-12. Due to recent declines in enrollment, the two classroom school has reduced its staff to one full time teacher and one aide. There is one school operated by the Education in the Unorganized Territories Program immediately adjacent to the Plan Area: the Rockwood Plantation Elementary School.

Rockwood Plantation Elementary School

Built by the S.D. Warren Company during the 1960s, the two-classroom Rockwood Elementary School was originally built for the employees of S.D. Warren and Scott Paper Company headquarters which were to be built in Rockwood. The two classroom school facility has an extensive library, a full elementary size gymnasium, a small stage, and a full kitchen.

Student Body

Students educated in the Rockwood Elementary School reside in the unorganized townships and plantations surrounding Rockwood, which is, itself, an unorganized township. Students from Pittston Academy Grant, Plymouth Township, Big W, Little W, West Middlesex Canal Grant, Soldiertown Township, Brassua Township, Tomhegan Township and Taunton & Raynham Academy Grant send their students to the Rockwood elementary school for grades K-4 and are tuitioned to Greenville Middle/High School for grades 5-12. The Director of Education in the Unorganized Territories decides which schools the students are to attend. The decision is based upon proximity to the nearest school, transportation, and finances for placement of these students into classrooms.

Table 5-17

Rockwood Plantation -Total Attending Enrollment											
October Enrollments											
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Elem Spec	0	0	0	0	0	0	0	0	0	0	0
4 Year Old	0	0	0	0	0	0	0	0	0	0	0
Early K	0	0	0	0	0	0	0	0	0	0	2
Grade K	5	4	2	2	2	4	3	1	0	3	3
Grade 1	2	4	4	2	3	2	3	4	0	0	1
Grade 2	3	2	4	3	2	3	2	5	4	0	1
Grade 3	4	3	3	5	2	2	2	2	6	4	4
Grade 4	1	2	2	5	3	3	2	3	1	7	5
Total Elem	**15**	**15**	**15**	**17**	**12**	**14**	**12**	**15**	**11**	**14**	**16**

% Change		**0.00%**	**0.00%**	**13.33%**	**-20.00%**	**-6.67%**	**-20.00%**	**0.00%**	**-26.67%**	**-6.67%**	**6.67%**

As it can be seen in Table 5-17, the enrollment rates at the Rockwood Elementary school have remained rather stable over the past ten years. According to Richard Moreau, the State Director of Education in the UT, enrollment has stabilized over the past 20 years. When he first became Director, there were approximately 34-36 students in the Rockwood Elementary School. With the addition of another teacher, he advises that the school will have the capacity to accommodate those numbers again. He also stated that the library could be converted quite easily into a third classroom to accommodate another 15-20 students, if needed.

Students from the UT south of Rockwood are sent to the Greenville School Department. If the Unorganized Townships of Moosehead Junction, Cove Point Township, Harfords Point Township, Big and Little Moose Townships and additional unorganized townships around Greenville have school aged children, they are tuitioned to the Greenville schools.

Table 5-18

Rockwood											
October Enrollments											
Total Resident Enrollment											
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Rockwood Elementary	15	15	15	17	12	14	12	15	11	14	16
Greenville Middle	19	15	15	13	10	11	9	11	9	8	6
Total Elem	**34**	**30**	**30**	**30**	**22**	**25**	**21**	**26**	**20**	**22**	**22**
% Change		**-11.76%**	**-11.76%**	**-11.76%**	**-35.29%**	**-26.47%**	**-38.24%**	**-23.53%**	**-41.18%**	**-35.29%**	**-35.29%**
Total Sec	**13**	**10**	**10**	**14**	**16**	**16**	**13**	**10**	**8**	**10**	**11**
% Change		**-23.08%**	**-23.08%**	**7.69%**	**23.08%**	**23.08%**	**0.00%**	**-23.08%**	**-38.46%**	**-23.08%**	**-15.38%**
Grand Total	**47**	**40**	**40**	**44**	**38**	**41**	**34**	**36**	**28**	**32**	**33**
% Change		**-14.89%**	**-14.89%**	**-6.38%**	**-19.15%**	**-12.77%**	**-27.66%**	**-23.40%**	**-40.43%**	**-31.91%**	**-29.79%**

Staff

Due to recent declines in enrollment, the Rockwood Elementary School has reduced its staff to one full time teacher and one aide. The administrative paperwork is handled by a part time secretary who works 2 hours a week. A part time cook is responsible for the school lunch program, and the custodial work is done by the part-time bus driver.

Transportation

Transportation services for EUT pupils are provided through a fleet of 27 school buses (18 regular and 9 spare). In those areas where a school bus is not available, there are 35 contract conveyors that provide daily transportation to and from school or to the nearest bus stop. Two school buses are assigned by the Department to serve the Rockwood Elementary School and area students, one in regular service and an alternate bus sitting in reserve if needed. The bus picks up students in Rockwood and continues south, picking up students on the way to dropping off the tuitioned students at the Greenville Middle/High School. The bus then returns and proceeds to collect students who attend the Rockwood Elementary School. Many of the students that ride the bus need to make alternative arrangements for transportation to the pick up and drop off spots. Currently the Department of Education and the Program for Education in the Unorganized Territories does not pick up or drop off any students on roads that are not accepted as official roads. According to Mr. Moreau, arrangements are made with the families and the Department of Education for students to receive transportation to and from the school from a reasonable location. It is recognized that there are situations that may not be feasible or reasonable for a school bus to safely get to a certain area. Therefore, if a road is not accepted by the municipality, county or state, school buses do not travel on it.

Budget and Financial Capacity

Funding for all services provided by the Division of State Schools EUT is obtained through a direct tax levy on real property located within the Unorganized Territory, including all properties within the proposed Plum Creek Plan Area. Thus, the Unorganized Territory Education and Services Fund is the source of all operating and capital monies. The EUT system receives no State subsidies of any kind, but does participate in a number of federal programs.

5.4 Future Conditions, Impacts, and Potential Solutions

Introduction

If the proposed development Plan occurs, an increase in employment and housing opportunities will occur in Greenville, Jackman and the surrounding Unorganized Territories. With these increases, the effects upon the educational system need to be identified. Increases in employment opportunities lead to increased population and the development of new households. Therefore, it is assumed that an increase in the school age population will be in direct proportion to increases in the population.

During the past ten years student enrollment within the Impact Area has fluctuated, with periodic declines, steeper drops, and then stabilization. Such fluctuations in enrollment are a major cause for concern for small rural schools. The ebb and flow of student enrollment directly affects the school funding formulas and raises concern about budgets and funding, from one year to the next.

Approach

To estimate the impact of Plum Creek's Plan development, it is necessary to estimate the potential number of school-aged persons generated within the broader Plan Impact Area. The assumptions applied in this Education impact study are the same assumptions applied in the Housing section of this Report. Census data for population are used to estimate the number of persons per household and the percentage of the population that are of school age (5-18 years of age). Many of the assumptions used could be modified to reflect a more conservative or liberal estimated impact. For example, one could assume a greater or lesser number of seasonal versus year-round residents proposed within the development; a higher or lower percentage of persons per year-round household, or a higher or lower number of induced housing units from the Plan development.

Assuming that 35 percent (or 341) of the Plan's proposed 975 housing units will be year-round, and that an additional 370 year-round households (determined from the Housing section of this Report) will be induced from the Plan development, the Plan could lead to the creation of a combined total of 711 housing units within the Plan Area and Plan Impact Area.

It is difficult to project where these year-round residents would be located. It is assumed that the distribution of year-round housing units would be similar to the location of the seasonal residences. The location of year-round housing is assumed to be in accordance (based on percentages) with the development patterns proposed in the Plum Creek Plan, as was any additional induced housing resulting from the increase in development in the Plan Impact Area.

Census 2000 data for average persons per household county wide (2.44 for Somerset County and 2.34 for Piscataquis County) was used to calculate a total increase in year-round population for both Plan Area development and any induced development. Census 2000 data was also used to determine what percentage of the county population (19.5 percent for Somerset County and 18.7 percent for Piscataquis County) would be of school-age. This percentage was multiplied by the total year-round persons added to the population, to estimate the total student increase for the Plan Impact Area. This total student increase was then applied to the applicable school district in which the proposed development or induced development would occur. With an area covered by multiple school districts, as is the case with Rockwood, percentages are allocated. For example, it is assumed that 15 percent of the children in the Rockwood Elementary School system would be of the age appropriate for grades 5-12, and would need to be sent to the closest District that would educate the children within the Plan Area.

Potential Impacts

The impact of future increases in enrollment of potential students generated from developments within the Plan Area is shown in Table 5-19, Student Enrollment from Plan Development**.** The numbers in Table 5-19 are estimates of student enrollment from Plan development upon the Plan's full build-out. However, it is assumed that student enrollment would increase in tandem with the phasing of the development.

Table 5-13 Student Enrollment from Plan Development

General Location of Lots	Total Lots	Year Round Homes at 35% of Construct	Persons Per Year Round Homes	Total Year Round Person	% of County population enrolled in school (K-12)	Total Student Increase	Union #60	SAD #12	Rockwood Elemen
							% of Population to attend		
							0%	100%	0%
Jackman/Long Pond Corridor									
Long Pond (Somerset)	79	28	2.44	67.5	19.49%	13.2	0	13.2	0.0
Subtotal	*79*	28	*2.44*	*67.5*	*19.49%*	*13.2*	*0.0*	*13.2*	*0.0*
Greenville/Rockwood Corridor							**85%**	**0%**	**15%**
Brassua Lake (Somerset)	221	77	2.44	188.7	19.49%	36.8	31.3	0.0	3.7
Moosehead Lake Area (Piscataquis)	184	64	2.44	157.1	18.69%	29.4	25.0	0.0	4.4
Corridor Backlots (Piscataquis)	125	44	2.44	106.8	18.69%	20.0	17.0	0.0	3.0
Indian Pond (Piscataquis)	31	11	2.34	25.4	18.69%	4.7	4.0	0	0.0
Burnham Pond (Piscataquis)	26	9	2.34	21.3	18.69%	4.0	3.4	0	0.0
Subtotal	*587*	205	*2.4*	*499.3*	*18.85%*	*94.8*	*80.6*	*0.0*	*11.1*
Greenville/Lily Bay Corridor							**100%**	**0%**	**0%**
Moosehead Lake Area (Piscataquis)	16	6	2.34	13.1	18.69%	2.4	2.4	0.0	0.0
Lily Bay Township (Piscataquis)	148	52	2.34	121.2	18.69%	22.7	22.7	0.0	0.0
Prong Pond Township (Piscataquis)	95	33	2.34	77.8	18.69%	14.5	14.5	0.0	0.0
Upper Wilson Pond (Piscataquis)	50	18	2.34	41.0	18.69%	7.7	7.7	0.0	0.0
Subtotal	*309*	*108*	*2.34*	*253.1*	*18.69%*	*47.3*	47.3	*0.0*	*0.0*
Total	**975**	**341**	**2.38**	**820**	**18.89%**	**155.2**	**127.9**	**13.2**	**11.1**

Source: US Bureau of Census, Data Set FS-3-sample data
Plum Creek Rezoning Plan
EMDC Housing and Employment Projections
Assuming 35% of developed properties within Plum Creek Plan will be year round housing
Assumptions were made according to detailed conversations with the Department of Education as to where, if students were living in the Plan Area, they would attend school.

Note: Location of proposed households in the Plan Area are distributed according to the locations specified in the Plan. The school districts that new students would attend will depend on the location of the new year-round households. Whether the Plan's proposed lots will be used for year round or seasonal use will be driven by market conditions.

The impact of future increases in enrollment of potential students generated from induced development in the Impact Area can be seen in **Table 5-20,** *Student Enrollment Induced from Development.* The numbers in Table 5-20 are estimates of induced population upon the Plan's full build-out However, it is assumed that student enrollment would increase in proportion of the phasing in of the development.

Table 5-14 Student Enrollment Induced From Development

General Location of Lots	Total Lots Proposed by Develop-ment	Induced Homes	Persons Per Home	Total Persons	% of county population enrolled in school (K-12)	Total Student Increase	Union #60	SAD #12	Rockwood Elementary
							0%	*100%*	*0%*
Jackman/Long Pond Corridor	79	30	2.44	73.1	19.49%	14.3	0.0	14.3	0.0
							85%	*0%*	*15%*
Greenville/Rockwood Corridor	*587*	*223*	*2.34/2.44*	541.4	18.69%	102.8	87.4	0.0	12.0
							100%	*0%*	*0%*
Greenville/Lily Bay Corridor	*309*	*117*	*2.34*	274.4	18.69%	51.3	51.3	0.0	0.0
Total	**975**	**370**	**2.38**	**889**	**18.69%**	**168.4**	**138.7**	**14.3**	**12.0**

Source: US Bureau of Census, Data Set FS-3-sample data
Plum Creek Rezoning Plan
EMDC Housing and Employment Projections
Assumptions were made according to detailed conversations with the Department of Education as to where students would attend school in relation to their location.

Note: Location of proposed households in the Plan Area are distributed according to the locations specified in the Plan.. The school districts that new students would attend will depend on the location of the new year round households. Whether the Plan's proposed lots will be used for year round or seasonal use will be driven by market conditions.

The impact of future increases in enrollment generated from the Plum Creek Plan development and induced development in the Impact Area, is shown in Table 5-21, Enrollment Change in Impact Area**.** The numbers calculated in Table 5-21 are based on full build out of the proposed development and the assumed additional induced development. However, it is assumed that student enrollment would not increase immediately but would increase in proportion to the phasing in of development.

Table 5-15 Enrollment Change in Impact Area

School District	Increases in Student Enrollment		
	From Plan Development	From Induced Development	Total
School Union #60 (Greenville)	127.9	138.7	266.6
SAD #12 (Jackman)	13.2	14.3	27.5
Rockwood Elementary	11.1	12.0	23.1
Total	152.2	168.4	317.2

An additional impact to the educational system is the provision of transportation to new students. Currently, School Union #60, SAD #12, the Department of Education and the Program for Education in the Unorganized Territories provide students transportation to the local schools. However, they do not pick up or drop off any students on roads that are not accepted as official state, county, or municipal roads. According to Mr. Moreau of the Department of Education, arrangements are made with the families in the Unorganized Territories for students to be transported to and from the school from a reasonable location. It is recognized that there are some locations that may be too inaccessible to accommodate school transportation. Therefore, if a road is not accepted by the municipality, county or State, school buses do not travel on them. With the Plum Creek Plan development's proposed use of road associations and homeowners groups, it is likely that the current system of transportation will not be affected. Increases in ridership may be noticed, but as increases in enrollment can easily be handled, it can be assumed that the transportation of new students will be as well.

It is important that these transportation policies and expectations be communicated to incoming families. As a constant theme in rural Maine, people expect changes after they move in, either because of a lack of knowledge of the situation, or because they are unwilling to accept it. The Unorganized Territories need not unilaterally assume the added burden of rural locations if people choose to locate there despite well-known limitations on government services.

The conservative approach used above in determining the impacts of the Plum Creek Plan development and any induced development within the Plan Impact Area has produced projections that are, according to current trends in the region, higher than appropriate for planning purposes. A ratio of seasonal to year-round homes that more accurately reflects current conditions is 75%:25%. Projections based on this more representative ratio indicate that the Plan development and associated induced developments will generate fewer school aged children within the Plan Impact Area. A 75% seasonal to 25% year-round ratio in home construction yields a projected increase of 90 students in School Union #60, 9 students in SAD #12, and 10 students in Rockwood Elementary School upon full build out of the proposed Plan development. Induced student enrollments would remain the same as all induced homes are considered to be year-round, residential properties. Table 5-22, and the tables that follow, show these more realistic projected increases in enrollment in the three affected school systems.

Table 5-16 Enrollment Projections at 25% Year-round homes

General Location of Lots	Total Lots	Year Round Homes at 25% of Construct	Persons Per Year Round Homes	Total Year Round Person	% of County population enrolled in school (K-12)	Total Student Increase	Union #60	SAD #12	Rockwood Elemen
							% of Population to attend		
							0%	100%	0%
Jackman/Long Pond Corridor									
Long Pond (Somerset)	79	20	2.44	48.2	19.49%	9	0	9	0
Subtotal	*79*	20	*2.44*	*48.2*	*19.49%*	*9*	*0*	*9*	*0*
Greenville/Rockwood Corridor							**85%**	**0%**	**15%**
Brassua Lake (Somerset)	221	55	2.44	134.8	19.49%	26	22	0	4
Moosehead Lake Area (Piscataquis)	184	46	2.44	112.2	18.69%	21	18	0	3
Corridor Backlots (Piscataquis)	125	31	2.44	76.3	18.69%	14	12	0	2
Indian Pond (Piscataquis)	31	8	2.34	18.1	18.69%	3	3	0	1
Burnham Pond (Piscataquis)	26	7	2.34	15.2	18.69%	3	2	0	0
Subtotal	*587*	*147*	*2.4*	*352.2*	*18.85%*	*66*	56	*0*	10
Greenville/Lily Bay Corridor							**100%**	**0%**	**0%**
Moosehead Lake Area (Piscataquis)	16	4	2.34	9.4	18.69%	2	2	0	0
Lily Bay Township (Piscataquis)	148	37	2.34	86.6	18.69%	16	16	0	0
Prong Pond Township (Piscataquis)	95	24	2.34	55.6	18.69%	10	10	0	0
Upper Wilson Pond	50	13	2.34	29.3	18.69%	5	5	0	0

(Piscataquis)									
Subtotal	*309*	*77*	*2.34*	*180.8*	*18.69%*	*34*	34	*0*	*0*
Total	**975**	**244**	**2.38**	**580.1**	**18.89%**	**110**	**90**	**9**	**10**

Suggested Solutions and Mitigation Strategies

SAD #12 and School Union #60, as well as the Rockwood Elementary School, show capacity for increases in enrollment. Declines in enrollment over the past 10 years have left both school districts searching for new ways of meeting budgets while attempting to protect the quality of education that the students receive.

According to Nancy Paradise, SAD #12 Administrative Assistant to the Superintendent/Principal, the school system has the capacity to increase enrollment by 80-100 pupils without having any immediate effect on the system (whether facilities or teachers). Currently classrooms are under-utilized, with available space at all grade levels. As the threat of further consolidation looms over small community schools, SAD #12 and School Union #60 eagerly anticipate and willingly accept potential increases in enrollment.

According to Ms. Paradise (SAD #12), the school system currently has the capacity to increase enrollment by an estimated 80-100 students without requiring an increase in staffing or facilities. Currently classrooms are under-utilized, with available space at all grade levels. A projected increase of 27.5 students for SAD #12, as seen from Table 5-21 Enrollment Increases to Impact Area, is well below the District's current capacity (additional 80-100 students) and can easily be handled by the current infrastructure and staff.

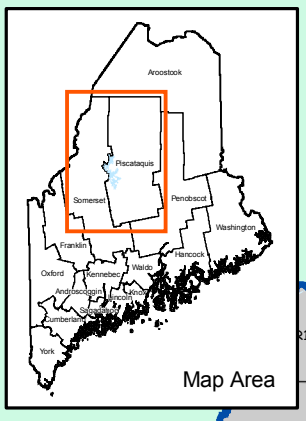
School Union #60 and the Rockwood elementary school have also experienced the same decline in enrollment. This decline has forced the consolidation of classrooms and has affected the quality of education. According to the administration, increases in school population due to development will not only be assimilated quite easily, they are actually being encouraged.

Over the past 10 years, Rockwood Elementary School, as part of the Education Program in the Unorganized Territories, has not seen its enrollment drop off as significantly as School Union #60 or SAD #12. Enrollment has remained fairly constant during the study period. However, the school operates far under its original capacity of almost 50 students. The two-classroom school is currently operating in one classroom and accommodates an average of 14 students a year. Previous highs of enrollment were more than double that number. According to Mr. Moreau, the Director of Education in the Unorganized Territories, there were 36 students there when he started over 25 years ago – still 14 students (28%) below capacity. A projected increase of 23.1 students for the Rockwood Elementary School, shown in Table 5-21 Enrollment Increases to Impact Area**,** is well within the current capacity of 50 students (additional 30-35 students).
School Union #60 is in a quite similar situation as SAD #12. Since 1995, School Union #60 has seen a decline of 178 students. This decline has forced the consolidation of classrooms and has affected the quality of education that the school has been able to provide. According to the administration, increases in school population due to development will not only be assimilated quite easily, they are encouraged. As the threat of further consolidation looms over the small community schools, Union #60 eagerly anticipates and can willingly accept increases in

enrollment of over 200 students. A projected increase of 266.6 students for School Union #60, as seen from Table 5-21 Enrollment Increases to Impact Area, is above the current perceived capacity (additional 200-225 students) of the district. Current infrastructure can easily handle a majority of the increase. As the population of school aged children increases in the area, further cooperation between the Department of Education, the Education Program in the Unorganized Territories and Union #60 needs to occur. Further studies should be conducted in the future to accurately monitor and predict the facility and administrative needs of Union #60.

The overwhelming attitude of the school systems within the Plan Impact Area is that enrollment increases would be assimilated quite easily, and are actually being encouraged. Administrators currently feel that under-capacity classrooms in the schools have led to constant scares of consolidation, program cuts, and staff downsizing. Any potential increases are seen as welcome additions to the stability of school systems.

EMDC provides this information with the understanding that it is not guaranteed to be accurate, correct or complete; that it is subject to revision; and conclusions drawn from such information are the responsibility of the user. Due to ongoing road renaming and addressing, the road names shown on this map may not be current. Any user of this map accepts same AS IS, WITH ALL FAULTS, and assumes all responsibility for the use thereof, and further agrees to hold EMDC harmless from and against any damage, loss, or liability arising from any use of this map.



LEGEND

- Plum Creek Land Subject to Resource Plan
- Unorganized Territories
- Schools
- School Unions
- School Administrative Districts

AROOSTOOK COUNTY

Big Ten Twp
T10 R16 WELS
T10 R15 WELS
T10 R14 WELS
T9 R18 WELS
T9 R17 WELS
T9 R16 WELS
T9 R15 WELS
T9 R14 WELS
T8 R18 WELS
T8 R17 WELS
T8 R16 WELS
T8 R15 WELS
T8 R14 WELS
Eagle Lake Twp
Soper Mountain Twp
T8 R11 WELS
T8 R10 WELS
T8 R9 WELS
T7 R19 WELS
T7 R18 WELS
T7 R17 WELS
T7 R16 WELS
T7 R15 WELS
T7 R14 WELS
T7 R13 WELS
T7 R12 WELS
T7 R11 WELS
T7 R10 WELS
T7 R9 WELS
SOMERSET COUNTY
PISCATAQUIS COUNTY
Big Six Twp
T6 R18 WELS
T6 R17 WELS
Saint John Twp
T6 R15 WELS
T6 R14 WELS
T6 R13 WELS
T6 R12 WELS
T6 R11 WELS
T6 R10 WELS
Trout Brook Twp
T5 R20 WELS
T5 R19 WELS
T5 R18 WELS
T5 R17 WELS
Russell Pond Twp
T5 R15 WELS
T5 R14 WELS
Chesuncook Twp
T5 R12 WELS
T5 R11 WELS
Nesourdnahunk Twp
T5 R9 WELS
BAXTER STATE PARK
T4 R5 NBKP
Dole Brook Twp
Comstock Twp
T4 R17 WELS
Elm Stream Twp
T4 R15 WELS
T4 R14 WELS
T4 R13 WELS
T4 R12 WELS
T4 R11 WELS
T4 R10 WELS
T4 R9 WELS
PENOBSCOT COUNTY
Seboomook Twp
Plymouth Twp
Northeast Carry Twp
Hammond Twp
Pittston Academy Grant
Little W Twp
Lobster Twp
T3 R13 WELS
T3 R12 WELS
T3 R11 WELS
T3 R10 WELS
Mount Katahdin Twp
Prentiss Twp T4 R4 NBKP
Big W Twp
Blake Gore
Bald Mountain Twp T4 R3
Alder Brook Twp
West Middlesex Canal Grant
TX R14 WELS
T2 R13 WELS
T2 R12 WELS
Rainbow Twp
T2 R10 WELS
T2 R9 WELS
Soldiertown Twp T2 R3 NBKP
East Middlesex Canal Grant Twp
Sandy Bay Twp
Thorndike Twp
Brassua Twp
Tomhegan Twp
Kineo Twp
Days Academy Grant Twp
Spencer Bay Twp
T1 R13 WELS
T1 R12 WELS
T1 R11 WELS
T1 R10 WELS
T1 R9 WELS
Moose River
Dennistown Plt
Rockwood Strip T1 R1 NBKP
Rockwood Strip T2 R1 NBKP
Taunton & Raynham Academy Grant
Moosehead Lake
Lily Bay Twp
Frenchtown Twp
Shawtown Twp
TA R11 WELS
TA R10 WELS
Long Pond Twp
Jackman
Sandwich Academy Grant Twp
Misery Gore Twp
Sandbar Tract Twp
Islands of Moosehead Lake
Attean Twp
Sapling Twp
Beaver Cove
Parlin Pond Twp
Misery Twp
TB R11 WELS
TB R10 WELS
Bradstreet Twp
T5 R7 BKP WKR
Big Moose Twp
Harfords Point Twp
Bowdoin College Grant West Twp
Bowdoin College Grant East Twp
Johnson Mountain Twp
Chase Stream Twp
Indian Stream Twp
Cove Point Twp
T5 R9 NWP
T4 R9 NWP
Hobbstown Twp
Upper Enchanted Twp
Squaretown Twp
Moosehead Junction Twp
Greenville
Katahdin Iron Works Twp
T7 R9 NWP
West Forks Plt
Moxie Gore
Elliottsville Twp
Brownville
Lake View Plt
Lower Enchanted Twp
T3 R5 BKP WKR
Shirley
Williamsburg Twp
East Moxie Twp
Bowtown Twp
The Forks Plt
Monson
Willimantic
Bowerbank
Barnard Twp
Medford
Pierce Pond Twp
T3 R4 BKP WKR
Blanchard Twp
Sebec
Milo
Flagstaff Twp
Bald Mountain Twp T2 R3
Carrying Place Twp
Caratunk
Guilford
Carrying Place Town Twp
Kingsbury Plt
Abbot
Atkinson
Orneville Twp
Bigelow Twp
Dead River Twp
Mayfield Twp
Sangerville
Dover-Foxcroft
Moscow
Parkman
Highland Plt
Pleasant Ridge Plt
Brighton Plt
Wellington
Cambridge
FRANKLIN COUNTY
Lexington Twp
Concord Twp
Bingham
Ripley
Solon
Athens
Harmony
Saint Albans

IMPACT ANALYSIS FOR PLUM CREEK REZONING PROPOSAL

FIGURE ED-1: EDUCATIONAL SYSTEM

0 2.5 5 10 Miles

Sources: MEDOT and MEGIS
Map revised: May, 2006

N W E S

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GIS SERVICES DATA CENTER

6.0 Public Safety

6.1 Police Protection

Overview

This section evaluates the potential impact of development as proposed in the rezoning Plan for Plum Creek lands on local, county and state law enforcement agencies. The Moosehead Lake and Brassua Lake regions of the State are rural communities with significant seasonal and recreational populations. Throughout the summer months, avid outdoorsmen venture to the area for hiking, biking, boating, fishing and rafting experiences. The winter brings snowmobilers, snowshoers, ice fishermen and explorers to the area. Law enforcement personnel are needed throughout the area to monitor and enforce the laws for the local residents and visitors.

Law enforcement services are mainly provided by the State Police and the County Sheriff's Departments within Piscataquis and Somerset Counties. The Maine Wardens Service provides assistance to the State Police, County sheriffs, and provides a visible presence of law enforcement within the unorganized territories. In the immediate vicinity of the proposed Plum Creek Plan area, only the Town of Greenville has an organized Police Department. Please see Figure ES-1 Police Services, for the location of the Law Enforcement Coverage areas within the Impact and Plan Area.

Historic and Current Inventory/Operations

Maine State Police, Troop E and C (Orono and Skowhegan, Maine)

The Maine State Police have general jurisdiction over the State of Maine. The State coverage is broken down into Troops. The Field Troops are the uniformed branch of the Maine State Police. The Troopers who work in the Field Troops patrol all the municipalities in the State of Maine that do not have their own police departments. They enforce criminal and traffic laws through investigation and patrol work. Field Troopers investigate traffic accidents and respond to a wide variety of criminal complaints including domestic violence, burglary, and assault. Troops C and E are responsible for police coverage in the greater Moosehead Lake region. Services and coverage for the Greater Greenville area are provided from the barracks at Troop E in Orono, Maine, 75 miles from Greenville. Troop C, in Skowhegan, is responsible for the upper Kennebec River region and the Town of Jackman, 72 miles away.

Staff

Troop E is responsible for Penobscot and Piscataquis Counties and for patrolling the 107 miles of Interstate 95 from Newport to Sherman. The Troop consists of a lieutenant, three sergeants, 24 troopers (which includes 3 Troop investigators) and a secretary. The Orono Barracks is also home to the Regional Communications Center, where 11 emergency communication specialists, a mechanic and a radio technician also support the public safety division of the State Police. The building was renovated and expanded in 1994.

Many Troop E Troopers maintain specialties as part of their assignment with the Maine State Police. Among the 24 troopers in the Troop, 1 is an instructor in radar, 1 is a vehicle autopsy specialist, 3 are evidence response team members, 3 are K-9 handlers (1 patrol/drug, 1 patrol, and 1 patrol/ tactical), 3 are instructors in emergency vehicle operations, 2 are on the tactical team, 3 are members of the underwater recovery unit (1 of those is the unit commander), 2 are firearms instructors, 1 is a member of the bomb squad, 2 are crash reconstructionists, 1 is a lead criminal justice academy defensive tactics instructor, and 1 is a forensic mapper. In addition, 4 troopers are members of the armed forces, either with the Army Air National Guard or Army Reserves. One Troop E sergeant, a Major with the Army Reserves, was activated to military service to serve a year in Iraq.

Troop E maintains an excellent long-standing cooperative resource coordination agreement with the Penobscot County Sheriff's Department, working daily with the Department's deputies. Penobscot County is divided into 6 rural patrol zones and two interstate zones, staffed by troopers and deputies. The southern interstate zone includes I-395. Troop E coordinates investigations and training with the Penobscot County Deputies, with one troop investigator maintaining a desk and computer access within Penobscot S.O. In August 2005, Troop E and Penobscot Deputies trained jointly in crowd control at the University of Maine at Orono.

Troop E troopers are relied upon heavily by the Maine Criminal Justice Academy, over recent years supplying 2 sergeants and 1 trooper as part of the training staff on the Basic Law Enforcement Training Program. In addition, Troop E supplies many man-hours of training to support the Maine Criminal Justice Academy and other law enforcement agencies.

Troop E is assigned 5 Troopers who serve the northern regions of Piscataquis and Penobscot Counties. The 5 Troopers include one supervisor, three Troop investigators, and one patrolman. All Troopers reporting to the Troop barracks in Orono are stationed and reside in the Dover-Foxcroft area. On any given day, officers are available for service calls as they are patrolling the area and investigating criminal activities within the Troop's service region. Any officer in close proximity to criminal activity may respond to any area for assistance.

According to Lt. Hussey of Troop E, the Maine State Police received 348 calls in 2003 and 137 calls in the first nine months of 2004. Lt. Hussey stated that a majority of the work the State Police do in the region is criminal investigation and assistance. It was his opinion that the major coverage to the area is handled by the Sheriff's Department and they are there to assist when called upon.

Troop C is based out of Skowhegan, in southern Somerset County, and is responsible for patrolling Somerset, Franklin and northern Kennebec Counties. The Troop is also responsible for the patrol of a 45-mile stretch of I-95 from Augusta to Newport. The Troop is comprised of 1 lieutenant, 3 sergeants, 23 Troopers and a secretary. On any given day officers are available for service calls as they are patrolling the area and investigating criminal activities within the Troop's service region. Any officer in close proximity to criminal activity may respond to any area for assistance.

Response Times

The response times of Troopers vary as to their current location and proximity to the call. Penobscot and Piscataquis Counties cover over 5,000 Square miles, and it may take a Trooper two to three hours to travel from one end of their coverage area to another. According to Lt. Hussey of Troop C in Orono, the majority of the calls to the Moosehead Lake region are handled by the County Sheriff's Department, not the State Police. The State Police are normally called in only to assist with investigations and cover seasonal patrols.

Piscataquis County Sheriff's Department

Piscataquis County Sheriff's Department provides police protection and public safety services to the people of Piscataquis County. Located in Dover-Foxcroft, the shire town of the county, the Sheriff's Department serves the 19 municipalities and approximately 92 unorganized territories spanning 3,500 square miles. The Sheriff's Department is responsible for responding to critical incidents, service calls, and patrolling the county. Piscataquis County participates in a regional dispatch program by hosting the regional dispatcher within its offices. Calls are received at the central dispatch unit within the Sheriff's Department in Dover Foxcroft.

Staff

Seven full time and seven regular part time Sheriff's officers comprise the Piscataquis County Sheriff's Department, comprised of two full time Administrative Supervisors and five full time Investigators. The part time officers regularly fill rotating shifts to complete the shift coverage. All officers are stationed and reside in the greater Dover-Foxcroft area. Officers are actively on duty from 8 am to 2 am, and rotate coverage for on-call services. The Piscataquis County Sheriff's Department also houses the Regional Dispatch Center, which operates 24 hours a day, 365 days a year.

Building and Equipment

The Piscataquis County Sheriff's Department operates out of space and conference rooms that have been dedicated to the Department's use. Each full time Sheriff or Deputy is assigned his or her own vehicle with two backup vehicles, which are used for part time officers and rotations. These vehicles are replaced on a five year capital replacement rotation.

Response Times

The Piscataquis County Sheriff's Department is responsible for law enforcement coverage for all of Piscataquis County. Four of the 19 municipalities within the County have their own police departments, which leaves primary coverage for a majority of the communities and all of the unorganized territories up to the Sheriff's Department. According to Lt. Robert Young of the Sheriff's Department, during night time hours the Sheriff's Department is responsible for filling the gaps in coverage of the four municipal police departments.

Somerset County Sheriff's Department

The Somerset County Sheriff's Department provides police protection and public safety services to the people of Somerset County. Located in Skowhegan, the Sheriff's Department serves 32 municipalities and 82 unorganized territories, spanning over 3,984 square miles. Officers answer requests for services, respond to local community requests for special events (such as fairs and mud runs), conduct OUI activities, serve protective and harassment orders, and render public assistance to the citizens through-out Somerset County. Court Security Officers provide security and assistance to the Superior and District Courts, and the Civil Deputies serve summons throughout Somerset County.

The Somerset County Sheriff's Department is also responsible for the oversight of the Somerset County Correctional Facility. The facility was originally erected in 1897, containing 12 cells. In 1909 an additional 6 cells were added. The facility has undergone many renovations since then, the latest renovation being in 1984 which brought the facility up to the current rated capacity of 45 inmates. A new facility is in the planning phase to increase capacity and level of service for the incarceration of inmates within the county.

The Somerset County Commissioners created its own Regional Communications Center in 2000, and is housed within the County offices. The Communications Center provides E911 and emergency response services for all the towns and unorganized territories in Somerset County. The safety of the residential, industrial and business base in Somerset County is dependent upon several State law enforcement agencies: the Somerset County Sheriff's Department, the Somerset County Emergency Management Agency, 4 Municipal Law Enforcement Departments, 17 Rescue and Transporting Ambulance Departments, 25 Fire Departments (many of which are volunteer), and 2 hospitals. The Communications Center also has the major Public Safety coverage responsibility for Law Enforcement, Fire, EMS, and EMA services within the county.

Staff

In addition to the staffing of the regional communications center, the Somerset County Sheriff's Department has on its staff five full time officers, and a wide array of regular part-time Sheriff's officers. Two full time Administrative Supervisors and three full time Investigators oversee the operations, while a secretary, receptionist and a network analyst run the day to day operations of the facility. The Somerset County Sheriff's Department also has on its staff a Community Resource Officer, who engages in public activities and outreach. The part time officers regularly fill rotating shifts to complete the shift coverage. All officers are stationed and reside in the greater Skowhegan area.

Building and Equipment

The Somerset County Sheriff's Department operates out of space and conference rooms that have been dedicated to the Department's use within the County Correctional facility and Court House. Each full time Sheriff or Deputy is assigned his or her own vehicle, with two backup vehicles which are used for part time officers and rotations.

Response Times

The Somerset County Sheriff's Department is responsible for law enforcement coverage for all of Somerset County. Four of the 33 municipalities within the County have their own police

departments, which leaves a majority of primary coverage of the communities and all of the unorganized territories up to the Sheriff's Department. Response times are limited to the location and severity of the call. The challenge for the Department is to provide adequate coverage for such a vast area. Working directly with the State Police allows for more complete coverage in the Northern portions of the County.

Greenville Police Department

One of only four municipal police departments within Piscataquis County, the Greenville Police Department, serves and protects the people of Greenville. With Police Protection staffed from 7:00 am -1:00 am, the Greenville Police Department is able to cover a majority of local calls, but from 1:00 am to 7:00 am, the Piscataquis County Sheriff's Department handles any local calls.

Staff

The Greenville Police Department consists of two full time Officers and seven to nine part time Reserve Officers. The Greenville Police Chief and one Corporal make up the full time staff, while reserve officers fill patrol shifts and cover special events as needed.

Building and Equipment

In January of 2005, the Town of Greenville's Town Office and Police Department moved to a newly-completed municipal building. After 15 years of planning, the Town was able to find new space for its municipal services and Police Department. With land purchased by the Town in the fall of 2003, construction of a new 3,100 sq. ft. building was completed in January of 2005. With the benefit of reserve account funds, left-over funds from the construction of the new public works facility in 2001, along with the borrowing of $150,000 toward the project, the Town was able to finance the project. This facility adds a great deal of professionalism to the operation of the Town, and brings the Town into compliance with a number of State and federal requirements.

The move to the new facility was important for the Police Department, as confidential meeting space for victims, witnesses, and suspects was needed. As part of the move, the Department has updated the computer systems, enabling interaction with other agencies through databases and e-mail.

The Greenville Police Department currently owns a 2004 GMC four-door pick-up and a retrofitted Maine State Police Cruiser. In conjunction with the Maine Warden Service, the Greenville Police Department houses an Intoxilizer, Breath Analysis machine.

Response Times

The Greenville Police Department serves the people of the Town of Greenville. Through municipal arrangement, the Town also has a contract with the Town of Beaver Cove. The contract with Beaver Cove is for the Greenville Police Department to provide law enforcement services on a call out basis. The GPD does not regularly patrol the Town of Beaver Cove, but serves as the primary coverage for the community.

The Department of Inland Fisheries and Wildlife: The Maine Warden Service

The Department of Inland Fisheries and Wildlife was established to ensure that all species of wildlife and aquatic resources in the State of Maine are maintained and perpetuated for their intrinsic and ecological values, their economic contribution, and their recreational, scientific, and educational use by the people of the State. In addition, the Department is responsible for the establishment and enforcement of rules and regulations governing fishing, hunting, trapping, propagation and stocking of fish, acquisition of wildlife management areas, the registration of snowmobiles, watercraft, and all terrain vehicles, safety programs for hunting, snowmobiles, and watercraft, and the issuing of licenses (hunting, fishing, trapping, guide, etc.) and permits.

The Bureau of Warden Service within the Department of Inland Fisheries and Wildlife was established to oversee and be responsible for:

1. Enforcement of laws and Department rules pertaining to the management and protection of the inland fisheries and wildlife resources within Maine.

2. Enforcement of laws and Department rules pertaining to the registrations and operation of snowmobiles, watercraft and all-terrain vehicles:

1. *General enforcement.* Enforcement of other laws or rules as designated by chapters 701 to 721, or as specified;
2. *Search and rescue*. The coordination and implementation of all search and rescue operations as specified under section 7035, subsection 4;
3. *Safety*. Assistance with programs for hunter safety and for the safe operation of snowmobiles, watercraft and all-terrain vehicles;
4. *Data collection.* The collection of data as needed for the management and protection of the inland fisheries and wildlife resources; and
5. *Other*. Other areas as specified in state law.

Through the cooperation of the Department of Inland Fisheries and Wildlife, the Maine Warden Service also provides some measure of policing in the unorganized territories, along with the overseeing of hunting and fishing regulations.

The Warden Service of the Department of Inland Fisheries and Wildlife of the State of Maine is an organization dedicated to the enforcement of Maine's laws.

The Maine Warden Service was established in 1880 to enforce the fish and wildlife laws of Maine when the first wardens were appointed to protect moose and deer. From this modest beginning, the Maine Warden Service now has a force consisting of 124 uniformed members and is the largest of three bureaus in the Department of Inland Fisheries & Wildlife. It consists of a control headquarters located in Augusta, and two divisions, with a varying number of districts. Regional headquarters are located in Gray, Sidney, Bangor, Greenville, and Ashland. Each division is administered and supervised by a Lieutenant and sectional Sergeants. Warden

districts cover the entire State; they are generally geographically smaller in southern Maine where the population is higher and larger in the more sparsely populated Northern sections.

Today, the Maine Warden Service is a modern, professional, highly effective law enforcement agency. Members are certified law enforcement officers who use state-of-the-art equipment, including four-wheel drive trucks, boats, snowmobiles, ATVs, personal computers, a two-way radio repeater network, portable radios, fixed wing aircraft, and night vision equipment in carrying out their responsibilities. In addition, the service maintains its own forensic laboratory, dive team, K-9 unit, and aircraft. These aircraft enable Wardens to patrol remote sections of their assigned districts, effectively respond to emergency situations, participate in fish stocking, conduct angler surveys, and oversee boating activity.

Staff

The Maine Warden Service Greenville Regional Headquarters is responsible for the oversight of the greater Moosehead Region. Coverage is maintained by a Regional Lieutenant and Sectional Sergeants. The staff oversees the enforcement of Maine's Fish and Wildlife regulations, as well as plays a major part in state law enforcement assisting with local, county and state police to uphold state and federal laws in a vast wilderness of the area. The Warden Service in Greenville also takes the lead role in search and rescue operations in the area.

6.2 Fire Protection and Rescue Services

Overview

The identified development zones within Plum Creek's Plan are serviced by the Town of Jackman, Greenville, and the surrounding unorganized territories. The Greenville Volunteer Fire Department, Jackman-Moose River Fire Department, Rockwood Plantation Fire Department, Shirley Fire Department and the Maine Forest Service are responsible for the fire protection services within the region. The municipal and plantation fire departments are manned by volunteer fire fighters. Through municipal appropriations, these departments provide fire fighting services for the region. The unorganized territories purchase fire and emergency services from these groups. Please see Figure ES-2 Fire and Medical Services, for the location and coverage areas of Fire Protection and Rescue Services within the Impact and Plan Area.

The purpose of this section is to outline and evaluate the potential impacts on fire and emergency protection services from the proposed Plum Creek Plan development. As development occurs throughout the region, the demand for fire and rescue services will increase. Inventory and analysis of current infrastructure and personnel will allow for better preparation for and management of impacts upon the area.

Historic and Current Inventory/Operations

The Greenville Volunteer Fire Department

By community vote, The Greenville Volunteer Fire Department was established in 1913 as a division of municipal government for the Town of Greenville. The Greenville Volunteer Fire Department consists of 25 Volunteers and provides fire and emergency response services to the towns of Greenville, Shirley, Beaver Cove, Big Moose Township, French Town, and Lily Bay. The Greenville Fire Department is a member of the Piscataquis Community response and will respond to any call within the County if needed.

The Greenville Volunteer Fire Department has recently expanded its facility as the municipal and law enforcement services have moved across the street to a new facility. While some storage space has been retained by the municipal offices, this has left the majority of the old municipal building to the Fire Department.

Coverage area

The Greenville Volunteer Fire Department provides fire protection and accident rescue services for a large region of Northern and Central Piscataquis County; which includes the Towns of Greenville and Beaver Cove. The MLFD also serves the unorganized territories of Greenville Junction, Little Moose (Squaw) Township, Harford's Point, Big Moose (Squaw) Township, Lily Bay, through to Kokadjo, and Frenchtown. As part of a mutual aid agreement with the other municipalities in Piscataquis County, the Fire Department offers assistance to Brownville, Brownville Junction, Milo, Dover-Foxcroft, Sangerville, Guilford, Monson, and Shirley. The MLFD acts as the primary and first responder to the region. Answering on average about 70 calls per year over the past five years, the Greenville Volunteer Fire Department handles calls ranging from small chimney fires to multiple vehicle accidents.

Staff

Made up solely of paid volunteers, the 25 member Fire Department is responsible for twenty-four hour coverage for fire protection and rescue services to the communities it serves.

Equipment

The major equipment currently held by the Department includes two pumper trucks, a rescue van, a brush stuck, a ladder truck, and water tender.

Mutual Aid Agreements and Funding

The Greenville Volunteer Fire Department budget is $117,000 per year. Approximately $75,000 of the revenue to support this budget is provided through Mutual Aid Agreements with neighboring communities. The formula for determining the cost for fire protection services for neighboring jurisdictions is based on population, valuation, and distance from the station.

Expansion of this fire protection into additional areas will be challenged by the availability of volunteers. Finding volunteer firefighters presents the most difficult challenge in expanding fire service protection. Many of the volunteers commute to jobs and have other responsibilities that impinge upon their availability to respond to fire calls. While the vast majority of fire fighters

live and work in Greenville, increasing commutes sometimes leave fire fighters in a position where they must backtrack to the fire station, and then ride past where they were prior to the fire call, perhaps traveling another half-hour or more.

Currently, the Greenville Volunteer Fire Department is the closest to the entire east side of Moosehead Lake, as there are no substations or other departments in the Plan Area for this part of the lake. Rockwood offers fire protection and has a mutual aid agreement with the Greenville Volunteer Fire Department, located nearly 20 miles away.

The Jackman - Moose River Fire Department (JMRFD)

Located in the western mountains of Maine, The Jackman - Moose River Fire Department (JMRFD) is owned and operated jointly by the Towns of Jackman and Moose River.

Coverage area

JMRFD provides fire protection and accident rescue services for a large region of Northern Somerset County, which includes the Towns of Jackman and Moose River, Dennistown Plantation, and numerous unorganized townships. JMRFD acts as the primary and first response to the region. Answering on average 35 calls per year over the past five years, the Jackman Moose-River Fire Department handles calls from small chimney fires to multiple vehicle accidents.

Staff

Made up solely of paid volunteers, this 20 member Fire Department currently has approximately 19 active members. According to the Chief, it is difficult to mobilize personnel during the work day. Member volunteers work a wide variety of positions throughout the region and often commute long distances to work, or work in remote areas where travel during the day is unlikely.

Equipment

JMRFD's fleet of Emergency Vehicles consists of a 1997 E-One Pumper, 1970 Kaiser Jeep Tanker/Brush Truck, 1990 KMC Pumper/Tanker, and a donated 1993 Ford E350 Rescue.

According to Chief Jarvis, there is a need to expand the Fire Department building. More room is needed for training, and there is a need to purchase a trailer to haul ATV equipment used in remote rescues.

In October 2003, the Jackman - Moose River Volunteer Fire Department, Inc. purchased an MSA 5000 thermal imaging camera complete with telemetry (Telemetry consists of a video transmitter built in to the camera that broadcasts images to a video receiver. This allows those outside of a burning building to watch all that the camera sees inside the burning building). Being located in a remote region, with no mutual aid available from other fire departments, every advantage that can be gained when fighting a structure fire is needed.

According to William Jarvis, Chief of the Jackman Fire Department, LifeFlight Helicopter is an important part of public safety in the Jackman Region providing critically injured patients with the care they need as soon as possible after the accident. While the Jackman Region Health Center has an emergency room with the necessary ER staff to provide immediate care for many injuries, critically injured patients need to be sent by ambulance or helicopter to a hospital with adequate facilities to house and treat these patients. Unfortunately, inclement weather often restricts use of LifeFlight, particularly in the winter.

Mutual Aid Agreements and Funding

JMRFD provides fire protection and accident rescue services for a large region encompassing the Towns of Jackman, Moose River, Dennistown Plantation, and numerous unorganized townships within Somerset County. The JMRFD is in the process of signing a mutual aid agreement with West Forks. The budget for the JMRFD is shared by the participating towns according to a formula based on valuation. The recent increases in waterfront valuation have served to transfer a larger share of the Fire Department budget onto neighboring towns where the valuation is increasing faster than in Jackman. According to the fire chief, more mutual aid agreements will help defer the costs of the Department, but will eventually stretch the capacity of the service.

The Rockwood Fire /EMS

Located on the western shores of Moosehead Lake, the Rockwood Fire Department and Emergency Medical Service is locally operated by the firefighters' association of Rockwood Township and funded through Somerset County appropriations.

Staff

Made up solely of paid-per-call volunteers, this 14 member Fire Department currently provides fire protection and emergency response services to the unorganized territories in and around the Western Moosehead and Brassua Lake region of Northern Maine. Member volunteers work a wide variety of positions throughout the region and often commute long distances to work, or work in remote areas where mobilization for a fire during the day is difficult.

Equipment

Somerset County purchased for the Department a 1999 pumper truck. The Department also has a 1994 refurbished ambulance as a rescue operations vehicle, a 1950s Forestry reserve tanker, and a new ATV rescue system.

The Shirley Volunteer Fire Department

Located on West Road in Shirley, the Shirley Volunteer Fire Department is a municipal fire department operated by the Town and volunteers. The Shirley Volunteer Fire Department is responsible for fire protection and emergency services for the Town of Shirley and adjacent unorganized territories. The Department, through mutual aide agreements, assists with fire and rescue operations throughout Piscataquis County.

Staff

The Staff of the Shirley Volunteer Fire Department is maintained by 10 volunteer members. These members are responsible for the 24-hour coverage of fire and emergency protection services throughout the area.

Equipment

The Shirley Fire Department is responsible for the maintenance and upkeep of a 1968 International Pumper Truck, a 1970 2.5 Ton converted Military truck, and a 1975 Keiser 6x6 pumper truck.

Life Flight Emergency Services

LifeFlight is Maine's statewide critical response medical helicopter service. LifeFlight's two helicopters, with one based in Bangor and one in Lewiston, cover the entire state and offshore islands. The service was developed by the nonprofit parent companies of Eastern Maine Medical Center and Central Maine Medical Center, two of the largest non-profit healthcare organizations in the State, to complement the work of local physicians, nurses, and EMS squads in caring for the critically ill or injured. LifeFlight's operating costs are also underwritten by Eastern Maine Healthcare and Central Maine Healthcare.

Maine physicians, physician assistants, nurses, nurse practitioners, and EMS professionals count on LifeFlight to deliver lifesaving care. Day or night, 365 days a year, a LifeFlight helicopter can be on its way within minutes of a flight request. Each incident is assigned a mission approval physician, who consults with on-site officials to confirm the care and transport needs of the critically ill or injured patient. Meanwhile, weather conditions will be checked, and a helicopter readied for liftoff. In flight, advanced medical communications keep local physicians and EMS personnel in constant contact with the crew. Physicians set treatment strategies and select destination hospitals in accordance with patients' needs and the Maine EMS/Trauma Advisory Committee protocol. Quality of care is overseen by a Clinical Practice Committee consisting of medical leaders from across the State.

LifeFlight pilots are supplied by Keystone Helicopter Corporation of Pennsylvania, a nationally recognized leader in air medical transport. To qualify for service, Keystone's FAA-licensed pilots must have logged at least 3,000 hours of pilot time in rotorcraft, pass initial and ongoing flight proficiency tests, and undergo EMS flight training.

Response Times

According to the LifeFlight website, www.lifeflightmaine.org, LifeFlight travel times to the greater Moosehead region can be expected to be 60-90 minutes before the helicopter arrives at the scene. This timing is critical for any patient and can be the difference between life and death. State databases for available landing spots are available. The lack of suitable landing spots in the UT can cause service to be delayed.

Maine Forest Service, Forest Protection Division

The Division of Forest Protection is recognized as the expert in the field of forest resource protection, pre-suppression, suppression, and investigation of fires that threaten Maine's forest and other lands. The Maine Forest Service is a group of forest resource professionals providing quality public service through education, assistance, and enforcement. Partnerships are created with cooperators to better serve those who live, work, and recreate in Maine's forest.

Staff

The Moosehead District office is located in Greenville and employs three full time Forest Rangers and a Field Supervisor. There are satellite substations located in Pittston Farms and at Chesuncook Lake. These stations are manned seasonally by one Forest Ranger II each. During the winter months the Rangers at Pittston Farms and Chesuncook Lake are relocated to the Greenville office. An additional ranger is located year round in Brownville. A station located in Jackman has operated in the past, but recently its equipment and staff have been relocated to the Greenville office.

Equipment

The following is a detailed list of the capital equipment owned and utilized by the Maine Forest Service in the Moosehead Lake region.

The Forest Protection division in Greenville houses the following equipment:

1 Industrial Tractor (International)
1 Hose Truck (American General)
1 Equipment Truck (Chevy)
1 Engine Truck (GMC)
All-terrain vehicles (1996 and 1988)
1 12-foot Starcraft Boat with Trailer
1 16-foot Lund Boat and Trailer
2 Canoes (Old Town Discovery)
2 Snowmobiles (Both 1997 SkiDoo)
3 Generators (3000-5000 watts)
1 Snow blower

Division in Chesuncook houses:

1 Boat (16-foot Lund with Trailer)
1 Canoe (Old Town XL)
1 Generator (5000 watt capacity)
2 Trailers (Utility and Fuel)
1 Engine Truck (1995 Ford F700)

Division in Pittston Farm houses:

1 Engine Truck (Kaiser)
1 Boat (12-foot Starcraft with Trailer)
2 Canoes
2 Generators
1 Tank Skidder
5 Assorted Trailers

Emergency Services Summary

Historical Overview

The Moosehead Lake and Brassua Lake regions of the State of Maine are rural communities with significant seasonal and recreational populations. Throughout the summer months, avid outdoorsmen venture to the area for hiking, biking, boating, fishing and rafting experiences. The winter brings snowmobilers, snowshoers, ice fishermen and explorers to the area. Law enforcement, emergency, and medical services are needed throughout the area to provide a healthy, safe environment for local residents and visitors.

Law Enforcement

Law enforcement services for the Plan Impact Area are primarily provided by the State Police and the County Sheriff's Departments from Piscataquis and Somerset Counties. The Maine Warden Service also provides assistance to the State Police and county sheriffs, and provides a constant visible presence of law enforcement within the unorganized territories. In the immediate vicinity of the proposed Plum Creek Plan Area, only the Town of Greenville has an organized Police Department.

Policing coverage for the Plan's proposed development area is maintained by the State Police Barracks' in Skowhegan and Orono, Maine, while the Sheriff's Departments from Piscataquis and Somerset Counties have offices in Dover-Foxcroft and Skowhegan, respectively. The shared jurisdiction from the State Police and the County Sheriffs provide primary coverage to the area.

The Maine Warden Service maintains a regional headquarters in Greenville and is oversees the greater Moosehead Lake region. The regional staff is responsible for the enforcement of Maine's Fish and Wildlife regulations, and a major role in State law enforcement, assisting with local, county and state police to uphold state and federal laws in a vast wilderness area. The Maine Warden Service provides a visible presence and some measure of policing for the unorganized territories.

The Greenville Police Department is one of only four municipal police departments within Piscataquis County. The Department serves and protects the people of Greenville. With police protection provided from 7:00 am to 1:00 am, the Greenville Police Department is able to cover a majority of local calls. The Piscataquis County Sheriff's Department assists by handling any local calls from 1:00 am to 7:00 am. The Town has a contract with the Town of Beaver Cove to provide law enforcement services to that community on a call-out basis. The GPD does not regularly patrol the Town of Beaver Cove, but serves as the primary coverage for the community. The Department consists of two full-time Officers and seven to nine part time Reserve Officers. Reserve officers fill patrol shifts and cover local special events as needed.

Fire, Emergency, and Rescue Operations

The planning envelope areas within Plum Creek's Plan receive fire suppression and emergency rescue operation primarily from the Towns of Jackman and Greenville. The Greenville Volunteer Fire Department located in Greenville, the Jackman-Moose River Fire Department, the Rockwood Plantation Fire Department, and the Maine Forest Service, are responsible for the fire protection services within the region. The municipal and plantation fire departments are all manned by a corps of community volunteer firefighters. Through municipal appropriations, these Departments oversee the regional fire fighting and emergency services of the area. Through county arrangements, the unorganized territories purchase coverage of these services from area groups. The Maine Forest Service is only responsible for the provision of forest fire suppression to the vast woodlands of the area.

The Greenville Volunteer Fire Department, a volunteer staffed organization, provides fire and emergency response services to the towns of Greenville, Shirley, Beaver Cove, Big Moose Township, French Town, and Lily Bay. Made up solely of paid volunteers, the fire department is responsible for twenty-four hour coverage for fire protection and rescue services to the region it serves.

Located in the western mountains of Maine, north and west of Greenville, the Jackman-Moose River Fire Department (JMRFD) is funded and operated jointly by the Towns of Jackman and Moose River. This volunteer organization provides emergency response and fire suppression services to the towns of Moose-River and Jackman, and on-call services to Long Pond Township and the other surrounding unorganized territories. Emergency response is coordinated with the ambulance from the Jackman Regional Health Center and the members of the volunteer EMS and firefighters

C.A. Dean Hospital in Greenville operates 3 ambulances and serves the greater Moosehead area, stretching north and northeast to Jackman (50 miles away) and to Northeast Carry (64 miles away), north to the summer community of Rockwood (25 miles), and south to Monson (15 miles away). The ambulances are supported by 20 EMS personnel and the volunteer services of the Greenville Volunteer Fire Department. The emergency medical response of the ambulance service is supported by LifeFlight of Maine.

LifeFlight of Maine, a service of Eastern Maine Healthcare, is the statewide critical response medical helicopter service that provides emergency helicopter service for acute patient needs. This service has two helicopters, with one based in Bangor and one in Lewiston, providing evacuation services for the entire state and offshore islands. These patients are served by 13 landing zones in the Moosehead region that are provided for emergency landings. GPS technology and integration with the 911 system also help to support this rescue system.

Given the area's remote location, remote ambulance and rescue services are often supported by a number of state and other local agencies that are part of the search, find, and rescue operation. This includes the Maine Department of Inland Fisheries and Wildlife, the State Police, Maine Forest Service, Maine National Guard, and individual volunteers who are often called in, especially in remote areas where larger search and rescue operations are required.

6.3 Future Conditions and Impacts

The greatest challenge for both Jackman and Greenville is to serve remote areas with Law Enforcement, Fire, Rescue and Emergency services. Access is a key, on-going issue with remote, rural areas, and residents generally accept that emergency and medical services may not be immediately available. It may take hours to receive notification of, and to locate and respond to crimes, accidents and fires. If the patient or victim is to travel via ambulance or firefighters, emergency personnel and law enforcement officials must mobilize. Service can normally be 1-2 hours away, and as much as nearly 4 hours away, if travel must be arranged from Skowhegan or Bangor. The Maine Life Flight helicopters can reduce this travel time during emergency evacuations; however, access and weather must be suitable for travel and the transport of patients.

The development proposed in Plum Creek's Plan is anticipated to impact current law enforcement and emergency services. As more people come to the Plan Impact Area, whether as residents, workers, or visitors, and as the number of seasonal and year-round homes increases, the number of service calls is expected to increase. There are numerous types of disasters that can occur in the remote areas of the woods and waters. When the only medical and emergency services are many miles away over dirt roads, the issue of safety is the responsibility of the visitor; but it ultimately becomes others' responsibility to assist the injured when an accident occurs. This responsibility could fall on public services, and/or the resorts. The fire/safety community will have an opportunity to assess mitigation requirements to assure emergency and fire safety preparedness when subsequent subdivison and site plan permit applications are considered

Law Enforcement

With the current population base and the size of the service area, law enforcement and emergency personnel must search out and tend to the most populous areas first. With only four organized police departments within the nineteen communities of Piscataquis County, and over ninety-two unorganized territories, the Piscataquis County Sheriff's Department and the State Police are continually attempting to find ways to maintain suitable levels of service while maximizing coverage and response times. The Greenville Police Department is the only organized department within the Plan Impact Area and turns over control during the overnight hours to the Piscataquis County Sheriff's Department. All of the unorganized territories within Somerset County fall under the jurisdiction of the State Police and the Somerset County Sheriff's Department.

Given the remoteness of the area, incidents in distant areas in the "backcountry" often require roads, planes, boats, and (in winter) snowmobiles, to assist in reaching the emergency. Collaboration between the Maine Warden Service, The State Police, the Sheriff's Departments of Somerset and Piscataquis Counties and local officials is the best way to take a proactive approach in addressing potential increases. Significant planning and current coordination has allowed for improvements to the level of service. However, increases in development can only increase the demand on these law enforcement agencies.

Fire, Rescue, and Emergency Operations

Providing fire protection in the rural areas of Maine has always been a sensitive topic of conversation. The nature of a rural community is to maintain the feeling of a remote wilderness community. As rural communities continue to operate volunteer fire departments and residents continue to build houses in the rural areas of a community or the wilderness of the unorganized territories, the availability of services does not reasonably meet the public's expectations.

It is not necessarily a deficiency but more of a local acknowledgement of the level of service that is to be expected. Communities' volunteer fire fighters usually work full-time jobs, and due to the remoteness of the area, might not be readily available to answer a fire or accident call with the response times requested and expected by new residents.

The Moosehead Lake, the Jackman-Moose River, and the Rockwood Fire Departments currently have the necessary equipment required to fight a fire or respond to an accident. The challenge for these departments is the lack of available fire fighters when needed. These departments are staffed with volunteers and the need for more efficient response is necessary. A majority of the department's volunteers are foresters, mill workers, or commuting professionals. The nature of volunteer fire fighting in rural communities does not allow for some members of the department the ability to leave work and respond to a fire in a timely manner. This lack of availability leaves the community vulnerable to manpower shortages. The more remote a housing development, the more difficult, and sometimes impossible, it is for the appropriate number of staff to get to the scene on time, as is also the case with emergency situations.

Mike Ricci of the Maine Forest Service, Forest Protection Division, advises that the Service's mission is to protect Maine's forest resources from fire and to enhance the safe, sound, and responsible management of the forest for this and future generations. This does not include the services of structure fires. The Maine Forest Service does not handle structure fires. Mr. Ricci feels the difficulties in the Forest Services' inability to fight a structure fire in the organized and unorganized territories are due to a lack of training and equipment. The Maine Forest Service does not have the proper training or equipment for SCBA (self contained breathing apparatus) necessary for fighting structure fires, and therefore concentrates on training and equipment for fighting forest fires only.

It is important to note that the availability of fire fighting services in the unorganized territories is limited. Our interviews indicate that the best method for combating very rural fires is often to prevent them from spreading to neighboring buildings or forests; however, long distances often mean that the site of the fire is often a total loss. Gaining services for unorganized territories will require discussion with the existing fire departments and the County. Under current law, the County may provide service to unorganized territories, thus it is not imperative that a separate service exist.

Growth in commercial and residential properties in the Impact Area will stress existing fire departments and emergency personnel in the following ways:

1. Volunteer Demands – Responding to a distant fire can take 4-6 hours, assuming an hour's travel each way, and a relatively short time to containment and control. Asking volunteers to respond to these remote areas will stress the existing system even more.
2. Service Demands and Local Vulnerability – Increased numbers of homes and people will stress existing volunteer and paid staffs of these emergency providers. To the extent calls increase in more remote areas, current staff will be drawn further away from the region's more populated areas, leaving the "local" communities, vulnerable to incidents as the "local" equipment is off tending to an emergency elsewhere, until such time as new resources are added.

Law Enforcement and Protection

The practices of law enforcement officials within the Plan Impact Area currently meet the needs of the area. However, with increases in residents, both seasonal and year round, as well as an increase in recreational and vacationing visitors, the following measures are suggested to try to meet the need of a changing environment.

Proposed Measures to Address Impacts from the Plan Development

- Plum Creek's Plan includes language that provides for planning for public safety services. The Plan includes the following mitigating provisions, regarding emergency services:

  Lot sale documents will require owners to utilize county Enhanced 911 Street and Address Numbering Systems, so that emergency workers can respond in a timely fashion;

  Resorts must ensure that payments are made to service providers (such as fire, police, ambulance) to cover costs associated with such services, as a condition of site plan approval;

  Plum Creek will support and will work with the Town of Greenville, at the Town's election, to help bring power to the emergency radio repeater station on Big Moose Mountain;

  Plum Creek will cooperate in providing sites for up to four helicopter landing zones for emergency situations at trailhead/parking areas.

Further, the fire/safety community will have an opportunity to assess mitigation requirements to assure emergency and fire safety preparedness when subsequent subdivison and site plan permit applications are considered.

- Increases in recreational traffic, both on the trails and on the lakes, will affect the level of service and the demands upon the Warden Service, State Police, County Sheriff Departments and the Greenville Police. An increase in staffing levels of the Maine Warden Service within the Moosehead Region will allow for an increased presence of law enforcement within the

unorganized territories. The Warden Service, under the guidance of the Department of Inland Fisheries, can enforce not only fish and game laws, but also the civil laws of the State of Maine. Increases in the necessary manpower from the Warden Service that might be required during the peak times will provide a method by which additional wardens (or "wardens in training") could be brought on to assist in emergency operations. Currently, during peak seasons, other planned activities must be abandoned during an emergency when staffing reserves are limited.

- Adjusting the placement and staffing of the Piscataquis and Somerset County Sheriff's Departments would provide more efficient service. The Departments could match staff patrol assignments to the areas where staff reside. Strategic placement of officers within the region and appropriate staffing in the more populated areas will allow for increased coverage and potentially decrease response times within the Area.

- Deputizing of local Greenville Police officers within County Sheriff's Departments (both Piscataquis and Somerset) so that at any given moment, a local officer can respond to regional calls for duty if called upon at the request of the Sheriff's Department.

- Regionalize the County Sheriff's Departments by combining the local Police Departments within the area and creating a regional police department with controls at the county or state level. This would provide for larger patrol areas and the coordination between smaller departments covering large areas with small population bases. Strategically placing units within the current infrastructure and employee base would create a larger, more diversified police force, which could then cover these larger land areas more efficiently.

Fire, Rescue and Emergency Operations

The practices of Fire, Emergency, and Rescue officials within the area of the Plum Creek Plan currently meet the needs of the people in the region. However, with increases in residents, both seasonal and year round, as well as an increase in recreational and vacationing visitors, the following measures are suggested to try to meet the need of a changing environment:

- Currently, the Greenville Volunteer Fire Department is the sole service provider to the entire east side of Moosehead Lake. There is fire protection from Rockwood, and there are mutual aid agreements with the Greenville Volunteer Fire Department located nearly 20 miles away, and Jackman-Moose River Fire Department more than 40 miles away. The Maine Forest Service does not fight structure fires.

- It may be necessary to add a few full-time fire fighters. However, it can be assumed that as the opportunities for employment increase within the Impact Area, the availability for more volunteers should also be greater, alleviating some of the stresses upon the current volunteer base. The level of service and the expectations of people, however, will require management, as many of these areas are more remote than what people may initially perceive. Alternatively, there may be opportunities to improve the existing fire fighting infrastructure so that it will reduce the demands upon volunteers. Creative ideas emerging from local leaders include: purchase of a truck that contains personal fire

fighting gear and equipment so that one person can bring equipment to the fire and volunteers can go directly to the fire (saving the time for often redundant travel routes from their work to the fire house and then the fire, and establishing substations).

- Substations - Establishment of substations may be necessary to meet local expectations for response time and, as noted above, to accommodate volunteers. Such a substation could operate under an agreement with a nearby fire department and gain efficiencies through a regional approach.

- Regionalization – It would appear that a solid foundation exists for expanding regional approaches to support and fund fire fighting services. There also appears to be a willingness among these fire departments to explore regional models of cooperation. Clearly this represents the most cost effective way to proceed. A more detailed study could look at sharing administration, the viability of paid staff, equipment and substation needs, and how this might be coordinated regionally.

- Training - With proposed increases in development within the unorganized territories and a perceived lack of available fire fighting resources, training and developing the Maine Forest Service to assist in the regional fire suppression would only benefit the services of the area. Increases in equipment and man power will be needed, but will need to be determined according to the level of service that is to be provided.

- Helicopter Landing Pad - The further the reach of development, the greater the increase in response and access time. To decrease the rescue and evacuation times, it is suggested that, a helicopter landing pad be provided near any major development

- Trail Rescue Stations - Coordination between recreational trail users and snowmobile and hiking clubs has led to the development of Rescue Stations along trails (hiking, x-c skiing and snowmobiling). Continued coordination and development of these rescue stations should be investigated. Providing a means of emergency communications (be it a telephone or direct call line) could increase the response times, therefore increasing the chances for rescue. Accidents and incidents are going to happen in the wilderness; and providing a means to reduce the wait time for assistance could prove beneficial to all.

- Resort On-Site first-responding Fire and Emergency services - Current development patterns have left all homeowners and seasonal vacationers vulnerable to the dangers of forest and structure fires. The placement of strategically located and equipped Fire Departments within each resort unit on either side of the lake will provide for available equipment and coverage for the development area. Self-contained first responding departments can be created within each resort, which could then be subsidized from local and county governments through mutual aid agreements to provide assistance and coverage to the areas outside the resort.

- Additional full-time Firefighters - The growing difficulty to provide fire suppression coverage is not necessarily just the need for increased equipment. There will potentially need to be more full time fire fighters within the current departments. With its volunteer

fire departments, the region depends fully upon locals with full time jobs to stop what they are doing to attend a fire in a potentially remote area. Full time fire fighters could be first responders, drivers and mobilizers of equipment to assist in the reduction of local response times.

- Equipment truck - Another helpful measure is for the local fire department to obtain an equipment truck located at the fire station. Response time can be improved with better equipment and volunteer resources. Currently fire fighters need to report to the fire station before going to the fire. By providing an equipment truck, only the first few fire fighters need to report to the station to pick up the equipment and fire trucks, allowing for additional assistance to mobilize directly to the fire.

- Public/private Planning - Existing fire departments will clearly be stretched to expand their reach without additional resources – both in staff and equipment. A cooperative planning effort between Plum Creek, municipal and county officials, resort developers and emergency service providers will be needed to address municipal and regional concerns. These efforts should assist in the proactive provision of emergency services to the new developments.

- Consider requirements for Dry Hydrant Systems to be installed in or near rural subdivisions and resort developments.

- To create designated trail heads, parking areas and helicopter landing zones which could be used as designated staging areas to certain "backcountry" destinations and developments. These areas would require very minimal development but could easily become known and used by emergency service providers.

- Resort developments should be required to complete a site location planning process to address the impacts regarding the provision of emergency services. As noted above, the site development for each resort should investigate the development of separate substations, first responder equipment, or independent fire suppression equipment on site.

To ensure that regional efforts will be fostered to meet the increasing demands for these services, further discussion between potential developers, local, and state officials should take place. There needs to be a constant flow of planning resources and local support for this and other important programs over the long range.

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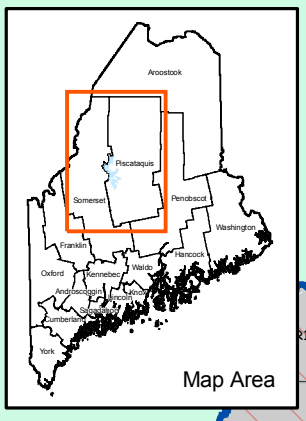

LEGEND

- Plum Creek Land Subject to Resource Plan
- Unorganized Territories
- Piscataquis County Sheriff and State Police Troop E
- Somerset County Sheriff and State Police Troop C
- Brownville Police Department
- Dover-Foxcroft Police Department
- Greenville Police Department
- Milo Police Department

AROOSTOOK COUNTY

SOMERSET COUNTY

PISCATAQUIS COUNTY

PENOBSCOT COUNTY

FRANKLIN COUNTY

BAXTER STATE PARK

Big Ten Twp; T10 R16 WELS; T10 R15 WELS; T10 R14 WELS; T9 R17 WELS; T9 R16 WELS; T9 R15 WELS; T9 R14 WELS; T9 R18 WELS; T8 R18 WELS; T8 R17 WELS; T8 R16 WELS; T8 R15 WELS; T8 R14 WELS; T7 R19 WELS; T7 R18 WELS; T7 R17 WELS; T7 R16 WELS; T7 R15 WELS; T7 R14 WELS; T7 R13 WELS; T7 R12 WELS; T7 R11 WELS; T7 R10 WELS; T7 R9 WELS; Big Six Twp; T6 R18 WELS; T6 R17 WELS; Saint John Twp; T6 R15 WELS; T6 R14 WELS; T6 R13 WELS; T6 R12 WELS; T6 R11 WELS; T6 R10 WELS; Trout Brook Twp; T5 R20 WELS; T5 R19 WELS; T5 R18 WELS; T5 R17 WELS; Russell Pond Twp; T5 R15 WELS; T5 R14 WELS; Chesuncook Twp; T5 R12 WELS; T5 R11 WELS; Nesourdnahunk Twp; T5 R9 WELS; T4 R5 NBKP; Dole Brook Twp; Comstock Twp; T4 R17 WELS; Elm Stream Twp; T4 R15 WELS; T4 R14 WELS; T4 R13 WELS; T4 R12 WELS; T4 R11 WELS; T4 R10 WELS; T4 R9 WELS; Seboomook Twp; Plymouth Twp; Northeast Carry Twp; Hammond Twp; Pittston Academy Grant; Little W Twp; Lobster Twp; T3 R13 WELS; T3 R12 WELS; T3 R11 WELS; T3 R10 WELS; Mount Katahdin Twp; Prentiss Twp T4 R4 NBKP; Big W Twp; Blake Gore; West Middlesex Canal Grant; TX R14 WELS; T2 R13 WELS; T2 R12 WELS; Rainbow Twp; T2 R10 WELS; T2 R9 WELS; Bald Mountain Twp T4 R3; Alder Brook Twp; Soldiertown Twp T2 R3 NBKP; East Middlesex Canal Grant Twp; Sandy Bay Twp; Thorndike Twp; Brassua Twp; Tomhegan Twp; Kineo Twp; Days Academy Grant Twp; Spencer Bay Twp; T1 R13 WELS; T1 R12 WELS; T1 R11 WELS; T1 R10 WELS; T1 R9 WELS; Moose River; Dennistown Plt; Rockwood Strip T1 R1 NBKP; Long Pond Twp; Rockwood Strip T2 R1 NBKP; Taunton & Raynham Academy Grant; Moosehead Lake; Lily Bay Twp; Shawtown Twp; Frenchtown Twp; TA R11 WELS; TA R10 WELS; Jackman; Sandwich Academy Grant Twp; Misery Gore Twp; Sandbar Tract Twp; Islands of Moosehead Lake; Attean Twp; Sapling Twp; Beaver Cove; Parlin Pond Twp; Misery Twp; TB R11 WELS; TB R10 WELS; Bradstreet Twp; T5 R7 BKP WKR; Big Moose Twp; Bowdoin College Grant East Twp; Bowdoin College Grant West Twp; Johnson Mountain Twp; Chase Stream Twp; Indian Stream Twp; Harfords Point Twp; Cove Point Twp; T5 R9 NWP; T4 R9 NWP; Upper Enchanted Twp; Hobbstown Twp; Squaretown Twp; Moosehead Junction Twp; Greenville; Katahdin Iron Works Twp; West Forks Plt; T7 R9 NWP; Moxie Gore; Elliottsville Twp; Brownville; Lake View Plt; Lower Enchanted Twp; T3 R5 BKP WKR; Shirley; Williamsburg Twp; Bowtown Twp; East Moxie Twp; The Forks Plt; Monson; Willimantic; Bowerbank; Barnard Twp; Medford; Pierce Pond Twp; T3 R4 BKP WKR; Blanchard Twp; Sebec; Milo; Flagstaff Twp; Carrying Place Twp; Caratunk; Bald Mountain Twp T2 R3; Guilford; Bigelow Twp; Carrying Place Town Twp; Dead River Twp; Kingsbury Plt; Abbot; Atkinson; Orneville Twp; Mayfield Twp; Moscow; Sangerville; Dover-Foxcroft; Highland Plt; Pleasant Ridge Plt; Brighton Plt; Wellington; Parkman; Cambridge; Lexington Twp; Concord Twp; Bingham; Ripley; Solon; Athens; Harmony; Saint Albans

IMPACT ANALYSIS FOR PLUM CREEK REZONING PROPOSAL

FIGURE ES-1: POLICE SERVICES

0 2.5 5 10 Miles

Sources: MEDOT and MEGIS
Map created: February, 2006

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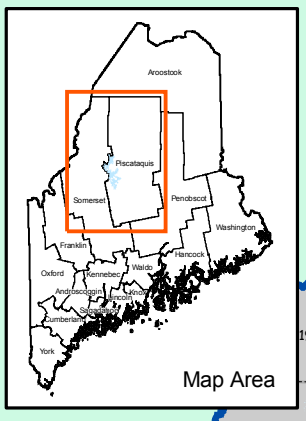

AROOSTOOK COUNTY

LEGEND

- Plum Creek Land Subject to Resource Plan
- Unorganized Territories
- Primary Fire Coverage
- Greenville Fire District
- Jackman/Moose River Fire District
- Rockwood Fire District
- Shirley Fire District
- West Forks Fire District
- Fire Station
- Medical Care Facility
- Hospital

Big Ten Twp; T10 R16 WELS; T10 R15 WELS; T10 R14 WELS; T9 R18 WELS; T9 R17 WELS; T9 R16 WELS; T9 R15 WELS; T9 R14 WELS; T8 R18 WELS; T8 R17 WELS; T8 R16 WELS; T8 R15 WELS; T8 R14 WELS; T7 R19 WELS; T7 R18 WELS; T7 R17 WELS; T7 R16 WELS; T7 R15 WELS; T7 R14 WELS; Big Six Twp; T6 R18 WELS; T6 R17 WELS; Saint John Twp; T6 R15 WELS; T6 R14 WELS; T6 R13 WELS; T6 R12 WELS; T6 R11 WELS; T6 R10 WELS; Trout Brook Twp; T5 R20 WELS; T5 R19 WELS; T5 R18 WELS; T5 R17 WELS; Russell Pond Twp; T5 R15 WELS; T5 R14 WELS; Chesuncook Twp; T5 R12 WELS; T5 R11 WELS; Nesourdnahunk Twp; T5 R9 WELS; BAXTER STATE PARK; T4 R5 NBKP; Dole Brook Twp; Comstock Twp; T4 R17 WELS; Elm Stream Twp; T4 R15 WELS; T4 R14 WELS; T4 R13 WELS; T4 R12 WELS; T4 R11 WELS; T4 R10 WELS; T4 R9 WELS; Seboomook Twp; Northeast Carry Twp; Hammond Twp; Pittston Academy Grant; Plymouth Twp; Little W Twp; Lobster Twp; T3 R13 WELS; T3 R12 WELS; T3 R11 WELS; T3 R10 WELS; Mount Katahdin Twp; Prentiss Twp T4 R4 NBKP; Big W Twp; T2 R9 WELS; Blake Gore; Bald Mountain Twp T4 R3; Alder Brook Twp; West Middlesex Canal Grant; TX R14 WELS; T2 R13 WELS; T2 R12 WELS; Rainbow Twp; T2 R10 WELS; Soldiertown Twp T2 R3 NBKP; East Middlesex Canal Grant Twp; Sandy Bay Twp; Days Academy Grant Twp; Spencer Bay Twp; T1 R12 WELS; T1 R11 WELS; T1 R10 WELS; T1 R9 WELS; Thorndike Twp; Brassua Twp; Tomhegan Twp; Kineo Twp; T1 R13 WELS; Moose River; Dennistown Plt; Rockwood Strip T1 R1 NBKP; Rockwood Strip T2 R1 NBKP; Taunton & Raynham Academy Grant; Moosehead Lake; Lily Bay Twp; Frenchtown Twp; Shawtown Twp; TA R11 WELS; TA R10 WELS; Long Pond Twp; Jackman; Sandwich Academy Grant Twp; Misery Gore Twp; Sandbar Tract Twp; Islands of Moosehead Lake; Attean Twp; Sapling Twp; Beaver Cove; Parlin Pond Twp; Misery Twp; Bradstreet Twp; Big Moose Twp; Bowdoin College Grant West Twp; Bowdoin College Grant East Twp; TB R11 WELS; TB R10 WELS; T5 R7 BKP WKR; Johnson Mountain Twp; Chase Stream Twp; Indian Stream Twp; Harfords Point Twp; Cove Point Twp; Hobbstown Twp; Upper Enchanted Twp; Squaretown Twp; Moosehead Junction Twp; Greenville; T5 R9 NWP; T4 R9 NWP; Katahdin Iron Works Twp; T7 R9 NWP; West Forks Plt; Moxie Gore; Elliottsville Twp; Brownville; Lake View Plt; Lower Enchanted Twp; T3 R5 BKP WKR; Shirley; Williamsburg Twp; Bowerbank; Barnard Twp; Monson; Willimantic; Medford; Bowtown Twp; The Forks Plt; East Moxie Twp; Pierce Pond Twp; T3 R4 BKP WKR; Flagstaff Twp; Bald Mountain Twp T2 R3; Blanchard Twp; Sebec; Milo; Carrying Place Twp; Caratunk; Guilford; Carrying Place Town Twp; Bigelow Twp; Dead River Twp; Kingsbury Plt; Abbot; Atkinson; Orneville Twp; Mayfield Twp; Moscow; Sangerville; Dover-Foxcroft; Highland Plt; Pleasant Ridge Plt; Brighton Plt; Wellington; Parkman; Cambridge; Lexington Twp; Concord Twp; Bingham; Ripley; Solon; Athens; Harmony; Saint Albans; Williamsburg Twp

SOMERSET COUNTY

PISCATAQUIS COUNTY

PENOBSCOT COUNTY

FRANKLIN COUNTY

IMPACT ANALYSIS FOR PLUM CREEK REZONING PROPOSAL

FIGURE ES-2: FIRE AND MEDICAL SERVICES

0 2.5 5 10 Miles

Sources: MEDOT and MEGIS
Map created: May, 2006

N W E S

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GIS SERVICES DATA CENTER

7.0 Health Care Facilities

Overview

This section evaluates the potential impacts on medical and health care services within the Plum Creek Plan Impact Area. As development occurs in the Plan Area, the demand upon medical services will increase. The inventory and analysis below of current infrastructure and personnel will help anticipate impacts from the Plan development.

The Plan development will be serviced by the Town of Jackman, Greenville, and the surrounding unorganized territories. Emergency, immediate, and long term health care services are provided to the region in the Plan Area by the Jackman Regional Health Center and the Charles A. Dean Memorial Hospital in Greenville.

Historic and Current Inventory/Operations

Charles A. Dean Memorial Hospital and Nursing Home

Located in Greenville, this Critical Access Hospital services the entire Moosehead Lake Region. The "critical access" designation requires that the average length of stay be less than 96 hours for patients. Thus, hospital services are largely related to short-term acute care and "swing-bed" or rehabilitation services. For example, swing bed services provide care for recent heart surgery patients who can leave their acute care hospital but are not ready to return home.

The hospital is licensed for 25 beds, but the average daily inpatient census was only 2.3 for "swing-bed" or rehab services, and 1.7 for acute care patients. According to Geno Murray, CEO of the hospital, the most patients ever served was 10, leaving the hospital at only 40 percent of capacity.

Besides short-term inpatient care, the major use of the hospital is for outpatient services. This is the major growth sector, as the health care industry pushes towards shorter stays in the hospital, and more services are able (through technology and other advances) to be offered on an outpatient basis. Presently, the hospital plans for 3,000 Emergency Room visits each year. According to CEO Murray, the hospital could handle 10,000 or more visits, so there is ample capacity in the Emergency Room for growth.

The hospital operates 3 ambulances and serves the greater Moosehead area, stretching north and northeast to Jackman (50 miles away) and Northeast Carry (64 miles away), north to the summer community of Rockwood (25 miles), and south to Monson (15 miles away). The ambulances are supported by 20 EMS personnel. Given the area's remote location, remote ambulance services are often supported by a number of state and other agencies who are part of the search, find, and rescue operation. This includes the Maine Department of Inland Fisheries and Wildlife, the State Police, Maine Forest Service, Maine National Guard, and others who are often called in, especially in remote areas where larger search and rescue operations are required.

The ambulance service is supported by LifeFlight of Maine, a service of Eastern Maine Healthcare that provides emergency helicopter service for acute needs. EMS personnel at CA Dean are trained to recognize patients needing advanced care. These patients are served by 13 landing zones in the Moosehead region that are prepared for emergency landings. GPS technology and integration with the 911 system also help to support this system of rescue. Given the remote area, rescues in distant areas in the "backcountry" often require roads, planes, boats, and (in winter) snowmobiles to aid in reaching the patient. Significant planning and coordination has helped improve the service. A good example of this is the snowmobile industry. Over the years, the area has planned and developed 5 rescue stations for the snowmobile industry and added numerous other improvements based on prior needs and experiences.

CA Dean is a private non-profit hospital. It is affiliated with Eastern Maine Healthcare.

CA Dean is in the process of a $3.3 Million fund raising campaign. New offices (12) will be created. Construction is planned for the summer of 2006. In addition, $2.3 million is being sought for upgrades for the emergency and operating rooms. These improvements are designed to address an aging facility, adapt to HIPPA (privacy requirements), and improve efficiency. According to Geno Murray, the improvements are very "appropriate" to the future growth of the region and part of the hospital's stated mission to service the needs of the area.

Jackman Regional Health Center

In northern Somerset County, the Jackman Region Health Center is the sole community provider for medical services in the Jackman-Moose River Valley region. The Center includes an outpatient doctor's office, a 24-hour emergency room and an 18-bed continuing care nursing home. The Jackman Regional Health Center is a division of Maine General Health. The Health Center includes two doctors, three nurses and five full time nurse's aides, as well as a wide variety of part-time aides, maintenance workers and support staff.

The Jackman Regional Health Center operates an ambulance for emergency response and transport. It is estimated that it receives 100-120 calls per year.

LifeFlight of Maine serves the area, and often lands at the airport. However, according to local emergency services personnel, the helicopter is unable to land as much as 50 percent of the time due to weather conditions.

7.1 Future Conditions and Impacts

With increases in population and the potential increase in demand for health care services, the availability of health care and emergency medical service becomes an issue for any proposed development in the Plan. As current population trends continue to threaten the downsizing of local facilities, such as C.A. Dean and the Jackman Regional Health Center, this potential increase in patient traffic should be received with open arms. According to James W. Henderson and Beck A. Taylor's article in the Journal of Rural Studies 19(2003) pg. 363-372, *Rural Isolation and the Availability of Hospital Services,* access to quality health care is a continuing

challenge for most rural communities and adds to the economic health of the community. The location and designation of a hospital leads to economic decisions, as the loss of or the downgrading of a facility can have a profound negative effect on employment and income in a rural community (as the hospital is most likely one of the major employers in the region).

Maintaining adequate health care services in isolated areas is not easy. If the population of these rural areas continues to decline, the provision of health care services will continue to become more expensive and less likely to remain readily available. C.A. Dean Hospital is facing declining use and threats of further downsizing as the year-round population is migrating to find employment and seasonal residents move in. According to C.A. Dean CEO, Geno Murray, current expansion plans and available capacity will allow for a 60 percent increase in acute or critical care patients and up to 70 percent in emergency care.

Potential impacts

Although increasing the use of C.A.Dean Memorial Hospital and Jackman Regional Health Center may stabilize the facilities' ability to provide adequate medical services to the region, the facilities will need to ensure that well maintained rescue vehicles are available, as the vehicles tend to have a shorter life span, due to damage caused by "backcountry" roads.

Suggested Solutions and Mitigation Strategies

1. Additional rescue equipment, such as headlamps, two-way radios, litters and other necessary search and rescue equipment to provide safe, adequate, and timely search and rescue operations.

2. Multi-agency training exercises, to maintain current skills and keep up-to-date.

3. Additional rescue vehicles and longer lifespan equipment to assist CA Dean Hospital, the Town of Greenville, and other regional partners to replace equipment that is anticipated to sustain damage caused by "backcountry" roads where they are often called.

It is important to address these issues to insure that the proper equipment, well trained staffers and adequate transport will be available to residents and visitors who find themselves in life threatening situations, whether they in the "backcountry" or in the back yard.

8.0 Transportation

8.1 Air Service

Overview

According to the Federal Aviation Administration, there are three (3) airports within the Plan Impact Area. There are two primary airfields and both are municipally owned airports; Greenville Municipal located in Greenville, and Newton Field located in Jackman. Both are rural airports as defined by the Internal Revenue Service (IRS).

The IRS defines the term "rural airport" as a rural airport for a calendar year if it satisfies both of the following requirements:

- Fewer than 100,000 commercial passengers departed from the airport during the second preceding calendar year and;
- Either of the following statements is true:

    a. The airport is not located within 75 miles of another airport from which 100,000 or more commercial passengers departed during the second preceding calendar year.

    b. The airport was receiving essential air service subsidies as of August 5, 1997.

In addition, there is a privately owned seaplane base in Jackman, which is available to the public.

The Maine Forest Service and Inland Fisheries and Wildlife Service share a seaplane facility in Greenville. This service was not reviewed for this study.

Historic and Current Inventory/Operations

Greenville Municipal

Greenville Municipal Airport is located approximately 2 miles east of the town center. While it is publicly owned and operated, it is not an attended airport and is open for service from dawn to dusk. There is no control tower and the nearest flight service station is located at Bangor International Airport, approximately 75 miles to the southeast.

The facility provides two runways, a 4,000’ by 75’ primary and a 3,000’ by 75’ crosswind. It also provides hangars, tie downs, airframe service and powerplant service. The facility can accommodate 25 aircrafts on the field (21 single engine and 4 multi-engine) and fuel service is privately owned.

As of the last inspection (2002) both runway surfaces are asphalt and in fair condition. The runway markings are badly faded. The reconstruction of the primary runway began in September 2005 and is expected to be complete in July 2006.

This airport does not provide commercial airline services. A review of statistics reveals there is an average of 111 enplanements (defined as a takeoff) per week, of which 64 percent are local general aviation and 36 percent are transient general aviation.

Newton Field (Jackman)

Newton Field is a municipally owned airfield in Jackman. It is an unattended facility with hours of operation from dawn to dusk, and it is designated as a customs landing rights airport due to its location near the Canadian border. There is no control tower. The facility provides self-fuel 24-hours a day, as well as hangars and tie downs. The facility does not provide any airframe or powerplant service. The airfield offers one 2,900' asphalt runway, which is in poor condition.

The airport can accommodate 9 single engine airplanes. Airport operations report an average of 115 enplanements per week, of which 83% are local aviation and 17% are transient general aviation.

Moose River Seaplane Base (Jackman)

Moose River Seaplane is a privately owned facility open to public use. It is an unattended facility with no official listed hours of operation. There is no control tower.

The facility does not provide any fuel or repair services. It can accommodate 2 single engine airplanes and has a reported average of 25 enplanements per week. 75% of air traffic is local general aviation, 23% is transient general aviation, and 2% is air taxi.

Greenville Seaplane

There was a privately owned seaplane base in Greenville until 2004. That was owned and operated by Folsom Air Service and located on Moosehead Lake. This facility is no longer open to the public.

MaineDOT Airport Projects

A review of Maine DOT's 2004-2005 BTIP listing indicates airport improvements planned at both the Greenville and Jackman municipal airports. The primary runway at Greenville is currently being reconstructed. A snow removal equipment storage building is planned for construction.

Airport improvements scheduled for the Jackman airport include the purchase of a loader and snow blower.

A review of the 2006-2007 BTIP indicates an apron design, overlay and expansion at the Greenville Municipal airport. Newton Field in Jackman anticipates obstruction removal and improvements to safety area and drainage, as well as negotiations for easements.

8.2 Highways and Bridges

Overview

The regional roadway system has developed in much the same manner as other roadways in rural Maine, providing access to the various settlements in the area. Highways have been improved over the years to accommodate additional automobile traffic associated with growing manufacturing and community centers. Logging and other heavy truck traffic increased significantly on Maine roads when river transportation of logs was prohibited in the 1970s.

There are two principal arterials leading into the Plan Area, including Rte. 6/15 (south of Greenville) and Rte. 201. Rte. 6/15 from Greenville to Jackman and the Lily Bay Road are both major collectors and provide direct access to the Plan Area.

Local roads primarily serve residential areas and are located off of these collectors and arterials. The majority of these roads are located in Greenville and Jackman, while the remainder of the road is located in unorganized territories and is owned by Somerset and Piscataquis Counties. An analysis of impacts on local roads is beyond the scope of this report.

There are over 1,400 miles of privately owned roads within the Impact Area. An analysis of impacts on private roads is beyond the scope of this report.

Historic and Current Inventory/Operations

Federal Functional Classification

The Federal Functional Classification (FFC) system designates all roads within one of five possible categories, based on their capacity and strategic significance within the highway network. These classifications, from highest to lowest, are: principal arterial-Interstate, principal arterial-other (hereafter referred to as "principal arterial"), minor arterial, urban collector, and local.

Figure TR-1 lists the road classification for each road within the immediate Impact Area.

National Highway System

The National Highway System (NHS) concept was a cornerstone of the Intermodal Surface Transportation Efficiency Act (ISTEA) federal legislation in the early 1990s. Development of the NHS remains a high priority under the new SAFETEA-LU legislation. The purpose of the NHS according to *ISTEA*, is to "provide an interconnected system of principal arterial routes which will serve major population centers, international border crossings, ports, airports, public transportation facilities, and other intermodal transportation facilities and other major travel destinations; meet national defense requirements; and serve interstate and interregional travel." More than one-third of all federal transportation funds are dedicated to the maintenance and improvement of NHS roads.

Rte. 201 is the only NHS-designated roadway in the Impact Area.

Traffic Volumes

MaineDOT has historically monitored traffic growth throughout the State using fixed and movable surveillance systems. Twenty-four hour traffic counts are taken on a rotating basis on selected routes to calculate the Average Annual Daily Traffic (AADT) serviced by a particular highway. Figure TR-2 shows AADT for points along major corridors in the Impact Area since 1984.

Traffic volumes were reviewed for count years 1984, 1999, and 2000. Counts have generally risen for the past 20 years, but have decreased in the last 5 years (except at a few locations).

Capacity

The only intersection in the area experiencing any capacity problems during seasonal peaks is the Route 6/15 and Lily Bay Road intersection. On road segments, MaineDOT traffic counts indicate that traffic volumes are well below the designed capacities. A separate traffic impact analysis has been conducted by Gorrill-Palmer Consulting Engineers, Inc. entitled *Traffic Impact Study for the Community Impact & Infrastructure Analysis of the Plum Creek Re-zoning Proposal*, which is included in the Plan Appendix.

Trucks

A study performed by the MaineDOT in 2001 (*A Heavy Haul Truck Network for the State of Maine*) estimates heavy truck volumes in Piscataquis, Penobscot and Somerset Counties will increase as shown in Table 8-1 below for the period 2000 to 2015.

Table 8-1: Heavy Truck Volume Increase

COUNTY	PRINCIPAL ARTERIAL	MINOR ARTERIAL	COLLECTORS
Penobscot	49%	84%	155%
Piscataquis	49%	84%	155%
Somerset	97%	85%	62%

Rte. 201 has the only 12-footwide truck lane located south of Jackman. The study identified many deficiencies throughout the State. Table 8-2 below identifies three that are in the Plan Impact Area.

Table 8-2: Deficient Heavy Truck Routes in the Area

Town	Location	Facility Type	Type of Deficiency	Length (km)	Estimated Cost
Greenville	Route 6	Minor Arterial	Shoulder	1.17	$219,104
Jackman	Rt. 201	Principal Arterial	Shoulder	2.67	$748,021
The Forks Plt.	Rt. 201	Principal Arterial	Shoulder	6.82	$1,910,608

Traffic Signals

There are no fully functioning traffic signals within the Impact Area. There is one flashing signal at the Route 6 and Lily Bay Road intersection in Greenville, which was installed as a safety measure.

Crashes

MaineDOT obtains and analyzes reported crash data from the Maine State Police to determine high-crash locations throughout the State. The standard comparison statistic is known as the Critical Rate Factor (CRF). The CRF is determined by comparing the historical crash rate on a section of roadway (link) or intersection (node) to what would be expected based on road type, traffic volume, and a statewide average of crash rates at similar locations. A CRF greater than 1.0 indicates that the number of crashes exceeds expectations (i.e., the location is more dangerous than average), while a CRF less than 1.0 indicates that the location is safer than average. A node or link must have a CRF of more than 1.0 and at least eight reportable crashes occurring over a three-year period to meet the criteria for listing as a high-crash location.

Each year, MaineDOT publishes a listing that summarizes the previous three years' worth of crash data and identifies the high-crash locations statewide. There are no high crash locations listed in the latest publication.

Maintenance

MaineDOT is responsible for all summer and winter maintenance on the major roads within the Impact Area. The current cost of maintenance on MaineDOT roadways is $5,263 per mile, which would total $584,193 per year for the Impact Area. Towns are responsible for the maintenance of their local roads.

The cost for maintaining local roads within Greenville has been budgeted at $179,850 for the 2005-2006 fiscal year.

Somerset and Piscataquis Counties provide maintenance on all local roads in the unorganized territories.

Maintenance of private roads in the area is the responsibility of the owner and, in some cases, a local homeowner’s association.

Planned Projects

Maine’s highway inventory contains numerous sections of road that do not meet the American Association of State Highway Officials’ (AASHTO) national design standards. Many do not even meet reduced State standards for drivability and safety. These sections of road are commonly referred to as the "backlog," meaning these road projects will be improved to established standards once funding is available. Three sections of roadway in the Impact Area

are not built to standard and are considered “backlog” by MaineDOT, including two sections of Lily Bay Road and one small section on Rte. 6/15 in Greenville.

Table 8-3 provides summary data of area major highway projects included in MaineDOT’s 2004-2005 BTIP.

Table 8-3: Major highway projects Maine DOT’s 2004-2005 BTIP.

County Name	Town Name	Program	Type of Project	PIN	Route Name	Length	Description
Piscatiquis	Greenville	Regional	Pavement Preventative Maint.	11272.00	Route 6	1.13	Highway Resurfacing: beginning .29 mile easterly of Industrial Park Rd. and extending easterly 1.13 miles to School St.
Piscatiquis	Greenville	Regional	Pavement Preventative Maint.	11341.00	Route 6	6.36	Highway Resurfacing: beginning at the Oliver Rd. and extending easterly 6.36 miles to the Shirley TL
Somerset	Taunton & Raynham	Regional	Level 2 Highway Resurfacing	11274.00	Route 6	6.47	Highway Grinding & Resurfacing: beginning .16 mile easterly of the Sandwich Academy Grant TL and extending easterly 6.47 miles to the Rockwood TL
Somerset	Jackman	Bridge	Bridge Improvement	10106.00	Route 201		Bridge Replacement: Moose River Bridge (#2583) over Moose River, located 1.70 miles northerly of Route 6/15. Recreational access opportunity identified.
Somerset & Piscataquis	Jackman, Long Pond TWP, Sandwich Academy, Rockwood Strip, Taunton & Raynham, Greenville	Regional	Highway Improvements	11211.00	Route 6	8.15	Collector corridor: beginning at Route 201 in Jackman and extending easterly to Main St. in Greenville. Project will reconstruct 8.15 miles of "backlog," beginning at Route 201 and extending easterly 46.59 miles with skips between sections.
Somerset	Long Pond TWP	Regional	Level 2 Highway Resurfacing	11289.00	Route 6	7.12	Beginning at the Jackman town line and extending easterly 7.12 miles to the Sandwich Academy TL

Table 8-4 provides summary data for area major highway projects included in Maine DOT’s 2006-2007 BTIP. Due to significant statewide transportation funding issues, projects currently included in the BTIP may be subject to deferment.

Table 8-4: Major highway projects Maine DOT's 2006-2007 BTIP.

County Name	Town Name	Program	Type of Project	PIN	Route Name	Length	Description
Somerset	Jackman	Highway	Pavement Preventative Maint.	12917.00	Route 201	6.18	Arterial: beginning 2.58 miles northerly of the Parlin Pond TWP TL and extending northerly 6.18 miles to Moose River Bridge (#2583).
Somerset	Long Pond TWP, Sandwich Academy Grant	Highway	Level 2 Highway Resurfacing	12846.00	Route 6	4.48	Major collector: beginning 3.12 miles westerly of Long Pond TWP/Sandwich Academy Grant TL and extending easterly 4.48 miles to 1.36 miles easterly of the Long Pond TWP TL.

Bridges

There are 28 bridges located within the Impact Area. One is owned by the Montreal, Maine, and Atlantic Railway located on SR 6 in Greenville. There are two municipally owned and maintained bridges located in Frenchtown Township. The remaining bridges are owned and maintained by MaineDOT. There are three Kennebec River crossings, including The Forks, located in The Forks Plantation, The West Outlet, located in Taunton & Raynham Grant, and Richard Francis Lavigne, located in Sapling Township.

All 28 bridges located within the Impact Area were found to be structurally sound and in good condition.

8.3 Rail Facilities

Overview

The rail line through the Greenville and Jackman areas forms a link in a major rail route crossing Maine between the Canadian Provinces of New Brunswick and Quebec. This trans-Maine route connects to a larger network of rail lines via Brownville Junction, allowing access to Maine and other New England rail traffic generators.

Historic and Current Inventory/Operations

Apart from a vacation excursion train that passed through Greenville in 2001, rail service on the line serving the Plan Impact Area has been exclusively for freight. The railroad carries forest products shipped out of the region and long distance shipments, such as automobiles, through the region.

The rail line is owned and operated by the Montreal Maine and Atlantic Railway (MMA). The route serves an estimated four trains per day on a single track with an operating speed of 30mph.

A transload facility with two switches and space for storage of loads is located in Jackman. The facility is owned by the Jackman Utility District and operated by Logistics Management System. The facility currently handles only out-bound lumber shipments totaling 3-4 cars per week. Lumber is trucked to the facility from the surrounding area, with the major shipper being Moose River Lumber.

8.4 Public Transportation

Overview

The low density of population and small market in the Plan Impact Area does not allow traditional fixed route public transportation to operate successfully unless large subsidies are applied. Many potential destinations are located on private land away from public highways, further limiting public transportation. A minimal demand-response service has been operating in part of the area to serve those needing an alternative to the private automobile.

Historic and Current Inventory/Operations

The Lynx (operated by Penquis CAP, a social service agency based in Bangor) is the area's demand response provider and offers weekday door-to-door van service in Piscataquis and Penobscot Counties. Each area in the region receives one day a week service, allowing riders to get to Bangor. The Greenville area is served on Mondays (the fare is $7 to travel to Bangor). Fare box revenue, Penquis CAP funds, and federal funds support the service. There is little use of the service.

No public transportation is provided in the Jackman area of Somerset County.

8.5 Bicycle and Pedestrian Facilities

Overview

The Plan Impact Area's highways are rural in character and have developed over the years to accommodate automobile traffic and connect communities separated by great distances. Historically, bicyclists and pedestrians were not a major consideration as Maine DOT improved its rural highways. MaineDOT however, adopted a shoulder paving policy in the 1990s that will be implemented on roadways of certain capacity as they are reconstructed. This policy will help accommodate the growing number of bicyclists in the State.

The majority of roadways located outside of town centers have higher speed limits, are very rural, and are not conducive to pedestrian use.

Historic and Current Inventory/Operations

A review of the MaineDOT's and Bicycle Coalition of Maine's websites indicate there are no designated bike trails/tours located within the Impact Area. Off-road bicycle trails are beyond the scope of this report.

Shoulder widths are too narrow on most roads for safe bicycle and pedestrian passage. Many shoulders are gravel only (Lily Bay Road), forcing bicyclists and pedestrians onto the roadway where they must compete with automobiles and heavy truck traffic for space.

Sidewalks and crosswalks within town centers are sufficient for pedestrians wishing to access shops and restaurants. However, because of the rural character of the area, many citizens and tourists must access some services via automobile.

8.6 Transportation Data Summary

Air Transportation

There are three (3) airports within the immediate Impact Area open to public use. Two municipally owned airports: Greenville Municipal located in Greenville, and Newton Field located in Jackman, and one privately owned seaplane base in Jackman.

There was a privately owned seaplane base in Greenville until 2004. This facility is no longer open to the public. The Maine Forest Service and Inland Fisheries and Wildlife Service share a seaplane facility in Greenville.

Table 8-5: Airport Capacity

	Greenville Municipal	Newton Field (Jackman)	Moose River Seaplane Base (Jackman)
Runways-Primary Crosswind	4000' paved 3000' paved	2900' paved	
Emplanements/week	111	115	25
Commercial air service	no	no	no
Control Tower/Attended	no	no	no
Hangers and/or Tiedowns	yes	yes	yes
Fuel	yes	yes	no
Airframe and Powerplant Service	yes	no	no

MaineDOT's programmed airport improvements at Greenville include design, overlay and expansion of the apron, a runway reconstruction, and construction of a snow removal equipment storage building.

MaineDOT's programmed airport improvements at Newton Field include obstruction removal and improvements to the safety area and drainage, purchase of a load and snow blower, as well as negotiations for easements.

Highways and Bridges

There are two principal arterials leading into the Plan Impact Area including Rte. 6/15 (south of Greenville) and Rte. 201. Rte. 6/15 from Greenville to Jackman and the Lily Bay Road are both major collectors and provide direct access to the Plan Area.

There are over 1,400 miles of privately owned logging roads within the immediate Impact Area.

Traffic Volumes

Traffic volumes were reviewed for count years 1984, 1999 and 2004 in the area. These counts have generally risen in the past 20 years but have decreased in the last 5 years (except at a few locations).

Capacity

Currently, the only intersection in the area experiencing any capacity problems during seasonal peaks is the Rte. 6/15 and Lily Bay Road intersection. On road segments, MaineDOT traffic counts indicate that traffic volumes are well below the designed capacities. A separate traffic impact analysis has been conducted by Gorrill-Palmer Consulting Engineers, Inc. entitled *Traffic Impact Study for the Community Impact & Infrastructure Analysis of the Plum Creek Re-zoning Proposal*, included in the Plan Appendix.

Crashes

There are no high crash locations in the Plan Impact Area.

Bridges

All 28 bridges located within the Impact Area were found to be structurally sound and in good condition.

Rail

The rail line through the Greenville and Jackman is owned and operated by the Montreal Maine and Atlantic Railway (MMA). The route serves an estimated four trains per day on a single track with an operating speed of 30 mph. The railroad carries forest products shipped out of the region and long distance shipments, such as automobiles.
A transload facility with two switches and space for storage of loads is located in Jackman. The facility currently handles only out-bound lumber shipments totaling 3-4 cars per week. Lumber is trucked to the facility from the surrounding area, with the major shipper being Moose River Lumber.

Bicycle/Pedestrian

There are no MaineDOT designated bike trails/tours located within the immediate Impact Area.

Shoulder width is too narrow on most roads for safe bicycle and pedestrian passage. Many shoulders are gravel only (Lily Bay Road), forcing bicyclists and pedestrians onto the roadway where they must compete with automobiles and heavy truck traffic for space.

Generally, the sidewalks and crosswalks within town centers are sufficient for pedestrians wishing to access shops and restaurants.

Public Transportation

The Lynx is the area's demand response provider and offers Monday service from Greenville to Bangor. Little use of the service is made.

No public transportation is provided in the Jackman area of Somerset County.

8.7 Future Conditions, Impacts, and Mitigation

Air Service

Potential Impacts

Airports are required to have updated master plans to review historic data, project future needs and analyze needed improvements. The last master plan was completed in 2000. The next time these master plans are updated they will review and analyze all historic and projected data. There are no additional significant impacts expected at either of the municipal airports from the Plum Creek Plan.

Highways and Bridges

Potential Impacts

Maintenance

Road maintenance costs will continue to increase throughout the State. Inflation, extreme weather conditions and other factors will play significant roles in determining future costs. A review of historical costs at the local level indicates an average increase of approximately 4 percent annually over a 10-year period, and future costs should be based on this minimum assumption. For example, this would bring the anticipated budget amount in Greenville to $255,982 by the year 2015.

A 5-year review of cost increases at the State level also indicates an average of approximately 4 percent annually, which would bring the cost-per-mile to $7,491 or $831,501 in year 2015 in the Impact Area.

It should be noted that these costs are an average minimum. Local and State maintenance costs can be greatly affected by weather conditions from year to year.

Planned Projects

As described in Table 8-4, there are 2 roadway projects identified in the MaineDOT's 2006-2007 BTIP. It is also anticipated that the two sections of backlog road on Lily Bay Road and the backlog section of Rt. 6/15 in Greenville will be brought up to standards as funds become available.

Bridges

A review of the current condition and age of bridges indicates they will be able to handle additional volumes well into the future.

Traffic Impacts

A separate traffic impact analysis has been conducted by Gorrill-Palmer Consulting Engineers, Inc. entitled *Traffic Impact Study for the Community Impact & Infrastructure Analysis of the Plum Creek Re-zoning Proposal,* included in the Plan Appendix.

Rail Facilities

Potential Impacts

Montreal, Maine, & Atlantic (MMA) anticipates that the Plum Creek Plan will have no impact upon capacity of the existing main line. No yard capacity presently exists in the Impact Area. New sidings and switch crews may need to be added to accommodate any additional freight demands. Construction of new rail facilities would be a private matter between the freight generator and MMA. Currently the Town of Greenville and the Greenville Stream Company are exploring funding options for a rail siding in the Greenville Industrial Park utilizing fund from the Economic Development Administration.

Plum Creek's Plan will not have any negative impacts on passenger rail service.

Public Transportation

Future Conditions and Impacts

Plum Creek's proposal will have no significant impact on public transportation in the Impact Area due to the seasonality of the anticipated population and the dispersed placement of the proposed development. The current level of available funding precludes any attempt to serve the new development.

However, site specific needs may arise as new development occurs, such as a shuttle bus to bring visitors and workers to the resort facilities.

Bicycle and Pedestrian Facilities

Potential Impacts

The majority of people likely attracted by the type of activities mentioned in Plum Creek's Plan enjoy recreational activities including bicycling and walking/hiking. Most State roadways in the area were not constructed to accommodate bicyclists or pedestrians. Increased traffic volumes

will exacerbate this problem. In the few locations where there are paved shoulders, often the width is too narrow for safe bicycle and pedestrian passage.

Suggested Solutions and Mitigation Strategies

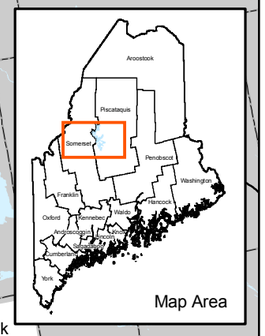
Maine DOT has a "Shoulder Surface Type Policy" dated January 3, 2000 that determines which shoulders on State roads will be paved or gravel. When sections of Rte. 6/15 and Lily Bay Road need to be resurfaced under the pavement preservation project program, they will receive paved shoulders since they are both Group III–Recreational highways. The towns should currently be working with MaineDOT to ensure that paved shoulders be added or widened as part of any pavement preservation project in this area. Since some recent MaineDOT projects in the area did not include paved shoulders.

Any resort facility planned for this area should ensure that private access roads are designed to include sufficient width to safely accommodate bicyclists and pedestrians.

Hammond Twp
Pittston Academy Grant
Plymouth Twp
Seboomook Twp
Little W Twp
Northeast Carry Twp
Lobster Twp
T3 R13 WELS
T3 R12 WELS
T3 R11 WELS
Blake Gore
Big W Twp
West Middlesex Canal Grant
Alder Brook Twp
Soldiertown Twp T2 R3 NBKP
TX R14 WELS
T2 R13 WELS
T2 R12 WELS
Rainbow Twp
Bald Mountain Twp T4 R3
East Middlesex Canal Grant Twp
Sandy Bay Twp
201
6
Tomhegan Twp
T1 R13 WELS
Days Academy Grant Twp
Thorndike Twp
Brassua Twp
Kineo Twp
Spencer Bay Twp
T1 R12 WELS
T1 R11 WELS
Moose River
Dennistown Plt
Rockwood Strip T1 R1 NBKP
Rockwood Strip T2 R1 NBKP
Long Pond Twp
Taunton & Raynham Academy Grant
Moosehead Lake
Lily Bay Twp
Frenchtown Twp
Shawtown Twp
TA R11 WELS
Sandbar Tract Twp
Sandwich Academy Grant Twp
Jackman
Misery Gore Twp
6
15
Attean Twp
Sapling Twp
Islands of Moosehead Lake
Beaver Cove
Parlin Pond Twp
Misery Twp
TB R11 WELS
Bradstreet Twp
Big Moose Twp
Bowdoin College Grant East Twp
T5 R7 BKP WKR
Harfords Point Twp
Greenville
Johnson Mountain Twp
Chase Stream Twp
Indian Stream Twp
SOMERSET COUNTY
Cove Point Twp
Bowdoin College Grant West Twp
Moosehead Junction Twp
T7 R9 NWP
201
West Forks Plt
PISCATAQUIS COUNTY
6
15
Elliottsville Twp
Moxie Gore
Squaretown Twp
Shirley
Bowerbank

LEGEND

- Plum Creek Land Subject to Resource Plan
- Townships under LURC Jurisdiction
- Other Principal Arterial
- Major/urban collector
- Minor arterial
- Minor collector
- Local
- Private roads



IMPACT ANALYSIS FOR PLUM CREEK REZONING PROPOSAL

FIGURE TR-1: ROAD CLASSIFICATIONS

0 2.5 5 Miles

Sources: MEDOT, MEGIS, Deluca-Hoffman Associates, Inc.
Map revised: May, 2006

N W E S

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Bangor, ME 04401
(207) 942-6389 www.emdc.org

GIS SERVICES DATA CENTER

Hammond Township
Pittston Academy Grant
Plymouth Township
Seboomook Township
Little W Township
Northeast Carry Township
Lobster Township
Big W Township
Prentiss Township T4 R4 NBKP
Blake Gore
West Middlesex Canal Grant
Alder Brook Township
Soldiertown Township T2 R3 NBKP
TX R14 WELS
Bald Mountain Township T4 R3
East Middlesex Canal Grant Township
Sandy Bay Township
201
6
Tomhegan Township
Days Academy Grant Township
Thorndike Township
Brassua Township
Kineo Township
Spencer Bay Township
Moose River
Dennistown Plt
Rockwood Strip T1 R1 NBKP
Rockwood Strip T2 R1 NBKP
Sandbar Tract Township
Moosehead Lake
Lily Bay Township
Long Pond Township
Taunton & Raynham Academy Grant
Shawtown Township
Frenchtown Township
FRENCHTOWN TWP RD
TA R11 WELS
TA R10 WELS
Jackman
Sandwich Academy Grant Township
Misery Gore Township
Attean Township
15
Sapling Township
Islands of Moosehead Lake
LILY BAY RD
Beaver Cove
Parlin Pond Township
Misery Township
Big Moose Township
TB R10 WELS
TB R11 WELS
Bradstreet Township
T5 R7 BKP WKR
Bowdoin College Grant East Township
Harfords Point Township
Greenville
Chase Stream Township
Indian Stream Township
Cove Point Township
Bowdoin College Grant West Township
Johnson Mountain Township
Upper Enchanted Township
SOMERSET COUNTY
PISCATAQUIS COUNTY
Moosehead Junction Township
MOOSEHEAD LK RD
Hobbstown Township
Squaretown Township
Elliottsville Township
T7 R9 NWP
Katahdin Iron Works Township
West Forks Plt
Moxie Gore
GREENVILLE RD
Shirley
Willimantic
Bowerbank

3490 AADT (2004)
3730 AADT (1999)
1180 AADT (2004)
1220 AADT (1999)
3200 AADT (2004)
3480 AADT (1999)
1180 AADT (2004)
1220 AADT (1999)
480 AADT (2004)
600 AADT (1999)
1130 AADT (2004)
810 AADT (1984)
1060 AADT (2004)
1060 AADT (1999)
665 AADT (1984)
2620 AADT (2004)
2290 AADT (1999)
1555 AADT (1984)

Downtown Greenville

SCAMMON RD
LILY BAY RD
BIRCH CAMP RD
DOAMNON ST
WELLS ST
MILL ST
CRAFT ST
PREO ST
FOSS ST
VILLAGE ST.
LAKEVIEW ST.
NORRIS ST
PLEASANT ST.
WEST ST.
BIRCH ST
DORR ST.
GREEN ST.
DOAN ST.
MURRAY ST.
PINE ST
SPRUCE ST.
LEWIS ST.
OLIVER RD
SCHOOL ST.
PARK ST
LAKEVIEW MANOR
SOUTH MAIN ST.
CRESCENT ST.
WASHINGTON ST.
BEECH ST.
MAPLE ST.

2020 AADT (2004)
1820 AADT (1999)
1490 AADT (1984)
4340 AADT (2004)
4235 AADT (1984)
5070 AADT (2004)
5950 AADT (1999)
4915 AADT (1984)
5810 AADT (2004)
6640 AADT (1999)
5280 AADT (1984)
2020 AADT (2004)
1820 AADT (1999)
1490 AADT (1984)
6150 AADT (2004)
5180 AADT (1999)
5070 AADT (1984)
4940 AADT (2004)
3520 AADT (1999)
2775 AADT (1984)

LEGEND

- Plum Creek Land Subject to Resource Plan
- Townships under LURC Jurisdiction
- Logging Roads
- Public Roads
- 5916 AADT — Annual Average Daily Traffic

Map Area

IMPACT ANALYSIS FOR PLUM CREEK REZONING PROPOSAL

FIGURE TR-2: TRAFFIC VOLUMES

0 2.5 5 Miles

Sources: MEDOT, MEGIS, Deluca-Hoffman Associates, Inc.
Map revised: May, 2006

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GIS SERVICES DATA CENTER

9.0 Government Services

Overview

This section evaluates the potential impact of the Plum Creek Plan on local, county and state government agencies.

The Moosehead Lake and Brassua Lake regions are rural communities with significant seasonal and recreational populations. Throughout the summer months, avid outdoorsmen venture to the area for hiking, biking, boating, fishing and rafting experiences. The winter brings snowmobilers, snowshoers, ice fishermen and explorers to the area. Government Services personnel are needed throughout the area to provide registration and administrative services for the local residents and visitors.

Government Services are primarily provided to the Plan Impact Area by the Towns of Greenville and Jackman. The Towns of Greenville and Jackman provide services to the residents of each municipality and operate as agents of the State of Maine for the provision of municipal and additional State services to the unorganized territories.

Historic and Current Inventory/Operations

The Town of Greenville

The Town of Greenville operates on a Town Manager/Selectmen/Town Meeting form of government. The Town Manager serves as the Economic Development Director, Treasurer, Tax Collector, Emergency Management Director, Road Commissioner and the General Assistance Administrator. Each year the Town of Greenville appoints and appropriates funds to provide staffing for the following governmental services positions: Full time positions are appointed to fill the job of Town Clerk and Bookkeeper and part-time positions are appointed for positions such as the code enforcement officer, the plumbing code officer, and ballot and election clerks, public works employees, recycling coordinator, librarians, and Recreation Director.

The Town of Greenville acts as an agent of the State of Maine Department of Inland Fisheries and Wildlife and the Bureau of Motor Vehicles. This places the responsibility for the issuance of in- and out-of-state sportsman licenses, as well as recreational equipment registrations such as boats, ATVs and snowmobiles on Town officials. As an agent for the Bureau of Motor Vehicles, the Town of Greenville is responsible for the proper administration and distribution of motor vehicle registrations and collection of excise taxes in the town. The town clerk and tax collector act as the responsible agents for the State to provide these licenses and registrations As an agent for the Inland Fisheries and Wildlife, the town participates in the IF&W Moses registration program. Residents of the unorganized territories can utilize the services of these agents to register motor vehicles and obtain licenses. The Town charges a nominal fee for these services to recover their costs for providing staffing for this service.

The town clerk is also responsible for keeping track of public records in the community. Marriage licenses and birth and death certificates, as well as dog licenses, are collected and

records are maintained in the town office. The Town of Greenville also provides voting booths for area UT's.

The Town of Jackman

The Town of Jackman operates on a Town Manager/Selectmen/Town Meeting form of government. The Town Manager serves as the Treasurer and Welfare Director, as well as the Health Officer. Each year the Town of Jackman appoints and appropriates funds to provide staffing for the following governmental service positions: Full time positions are appointed to fill the job of Town Clerk/Tax Collector/Registrar of Voters and the Deputy Tax Collector/Deputy Clerk/Deputy Treasurer, and part-time positions are appointed for governmental service positions such as the animal control officer, the code enforcement officer, and the plumbing inspector.

The Town of Jackman acts as an agent of the State of Maine Department of Inland Fisheries and Wildlife and the Bureau of Motor Vehicles. This places the responsibility for the issuance of in- and out-of-state sportsman licenses, as well as recreational equipment registrations such as boats, ATVs and snowmobiles on Town officials. As an agent for the Bureau of Motor Vehicles, the Town of Jackman is responsible for the proper administration and distribution of motor vehicle registrations and collection of excise taxes in the town. The town clerk and tax collector act as the responsible agents for the State to provide these licenses and registrations. Residents of the unorganized territories can utilize the services of these agents to register motor vehicles and obtain licenses. The town charges a nominal fee for these services to recover their costs for providing staffing for this service.

A Mobile Unit of the Bureau of Motor Vehicles operates a satellite office at the Jackman Municipal Offices. On the Last Tuesday of the month, from 11:30 am to 2:00 pm, representatives are available for residents to obtain and renew driver's licenses. The number of customers who can be served on any one day is limited. Sign-up sheets are used at each Mobile Unit location to make sure customers are served on a first-come basis. The sign-up sheet also informs customers upon arrival whether they can expect to be served or whether all of the slots for the day are already filled. Persons interested in converting out-of-state licenses to Maine driver's licenses must visit a Motor Vehicle Branch Office, not a mobile unit. Branch offices are open Monday through Friday in Augusta, Bangor and other areas throughout the State.

The Town clerk is also responsible for keeping track of all public records in the community. Marriage licenses, dog licenses, as well as birth and death certificates are collected and records are maintained in perpetuity in the Town office.

Somerset County

The provision of municipal and government services is normally handled by the overseeing department or bureau of the State of Maine. Arrangements are made between the State and the local municipality for the provision of services to the surrounding municipalities and unorganized territories. Somerset County maintains records and information in the Registry of Deeds Office. Information regarding property deeds, marriage licenses, and birth certificates is available through the County Offices located in Skowhegan. Somerset County is not required to provide many governmental services. The primary focus of services provided to the unorganized territories is the provision of solid waste disposal and road maintenance.

Piscataquis County

The provision of municipal and government services is normally handled by the overseeing department or bureau of the State of Maine. Arrangements are made between the State and the local municipality for the provision of services to the surrounding municipalities and unorganized territories. Piscataquis County maintains records and information in the Registry of Deeds Office. Information regarding property deeds, marriage licenses, and birth certificates is available through the County Offices, located in Dover-Foxcroft. Piscataquis County is not required to provide many governmental services. The primary focus of services provided to the unorganized territories is the provision of solid waste disposal and road maintenance.

State of Maine

The State of Maine provides reasonable access to municipal and governmental services for all Maine residents through collaborative efforts between municipalities and State agencies. Such collaboration allows for regional branch offices for department services. Services are spread out for individual services as municipalities enter into agreements to become agents of the State for the provision of such services as vehicle registration, hunting and fishing licenses, driver's licenses, etc**.** Not all services are available in all municipalities and they are subject to change with changes in demand.

Summary

There are a wide variety of services that are typically provided by 'local' government in Maine. These services vary from those mandated by State law to voluntary or discretionary services, including, for example, providing licenses for hunting or fishing. Typical government services provided by "local" governments include: voter registrations and voting, licenses for animals and animal control functions, tax collection, general assistance and welfare, and plumbing and code inspections. Other functions may be offered at the "local" level through partnerships with the State and County, and may include such things as hunting and fishing licenses as well as the administration of for solid waste collection. Sometimes partnerships with the State lead to, for example, the State using the Jackman Town Office for certain Department of Motor Vehicles services that otherwise would require citizens to travel to Skowhegan.

Through arrangement with the Counties, many of these functions are offered in the Towns of Greenville and Jackman for residents of the unorganized territories. Fees are collected to reimburse the Towns for this cost. The addition of new housing units will increase demand for these services. Coordination and communication among County, the Unorganized Territory, State and local towns (particularly Greenville and Jackman) will be required to ensure that the added costs associated with this are not a burden, or fall inequitably on a jurisdiction. Conversely, there may be opportunities for existing Town staff to take on additional responsibilities and provide these services without having to hire new staff. Summer increases in service demand, however, may require additional help, which presumably will be funded through the residents' property taxes.

9.1 Future Conditions, Impacts and Solutions

Potential Impacts

The demand upon government services will depend upon the number of people and households drawn to the area from the Plan development. The following table is based on the impact estimates predicted in the housing and education sections. Briefly, year-round homes created by the Plan will create one level of government service needs; and seasonal homes created by the Plan will create another level. There will also be "induced" growth in year around housing and people.

Below it shows the impact location related to the Plan's 3 planning envelopes. The development within these planning envelopes is likely to impact the provision of government services differently, as people and households in these areas will travel to either Greenville or Jackman. There are also other options for these services. Neither Greenville nor Jackman are required to serve residents in the Plan Area. It is presumed, however, that Greenville and Jackman will continue to provide these services, provided that their costs can be recovered.

The illustration below shows estimated household and population impacts on Jackman and Greenville:

- Jackman
  - Year around - 53 housing units and 196 people
  - Seasonal - 51 housing units and 205 people

- Greenville
  - Year around - 599 housing units and 1,432 people
  - Seasonal - 583 housing units and 2,329 people

These impacts should be manageable in Jackman, where there may be capacity in the current office staff, according to the Town Manager. In Greenville, however, there may be greater impacts on the present staff due to the larger numbers involved.

The final scope and scale of these impacts is negotiable, however, as the Town of Greenville is not obligated to serve the Plan Area residents. It is presumed that, unless the County and State ensure that the Town is adequately reimbursed for the added costs of government services, it may simply refuse to offer the service.

Suggested Solutions and Mitigation Strategies

The following solutions are suggested for the government agencies:

- Open communications and discussions between Town, County, and the State will serve to identify needs and staffing solutions. Because these impacts will occur over a long period, there is ample time to find and negotiate new funding mechanisms to ensure that services are paid by the proper jurisdiction.
- Further mechanization of government offices would serve to make certain government services more efficient, thus reducing demand on staff. This will require training as well.
- Increased property taxes will cover the cost of these services, as they are generally only a small portion of the overall budget, with school and road costs making up a much greater share.
- Expectations must be managed among new residents of the Plan Area. In Maine, people settling in rural areas may find that the prevailing level of services does not meet their expectations. While initially this lack of service may not be a problem, over time the population grows and changes and voters demand additional services. This trend might be anticipated up front and dealt with appropriately.

10.0 Tax Implications and Financial Considerations

This section discusses how additional infrastructure necessitated by the Plum Creek Plan will be funded.

The sections above in this Report identify a number of potential infrastructure impacts that will need funding, including the following: road improvements; rescue vehicles and equipment; full-time fire-fighters; helicopter landing pads; potentially, a new solid waste transfer station; additional staffing for the Maine Warden Service; directional signage; and, additional municipal staff in Greenville.

The property tax revenue from the Plan development should fully pay for such additional infrastructure, to the extent the current revenue sharing system between the unorganized territories and the organized townships is perfectly matched. As Dr. Charles Colgan noted in his *March 2006 Economic Impact Analysis*, the Plan development in this area of existing but underutilized infrastructure will "support *both* increased spending for public services and reductions in tax rates".

However, the service communities of Greenville and Jackman, that are expected to supply much of the public service needs created by the Plan developmen, do not have full confidence in such a perfect tax revenue/public cost match.

As described in detail below, under the current tax system, the match-up of UT tax revenues and organized town expenditures depends on a series of decisions made by the County Commissioners (who set the expenditure requests for organized and unorganized areas in their county); the Fiscal Administrator (who submits the bill for the expenditure requests to the Legislature); the Legislature (which determines the cost of county-provided services, and the cost of funding services in the UT); and the State Tax Assessor (who assesses and collects property taxes in the UT). There are also compelling needs elsewhere in the State and UT that can pull tax revenue from one area to another.

Below is a detailed description of the current tax revenue sharing model, followed by a recommendation for the establishment, by State legislation, of a regional tax increment financing district (as originally proposed by the Greenville Town Manager, John Simko). This section ends with a description of the Community Fund proposed by Plum Creek, to be established to help fund educational and recreational amenities.

Description of Governmental Structures and Fiscal Impacts

The Plan Impact Area includes land both in the Unorganized Territory, and in organized townships. The governmental agencies that have jurisdiction over these two areas have distinctly different methods for the assessment and collection of property taxes, as well as for the budgeting, appropriation and expenditure of tax revenues from those of the surrounding municipalities. This section discusses the differences between these two governmental structures, and its implications for ensuring that the tax revenue from the Plan development goes to the entities that provide the Plan Area with public services.

Unorganized Territory

Government functions in the Unorganized Territory are divided among various levels of government and among various agencies within those levels. Two levels of government, the County and the State, share jurisdiction over the Unorganized Territory. Moreover, at the State level, four executive branch agencies (the Department of Audit, the Bureau of Revenue Services, the Department of Education and the Land Use Regulatory Commission (LURC)), a constitutional officer (the Treasurer of State) and the State Legislature share in various aspects of the State's role in Unorganized Territory administration. All of these government bodies, agencies and officials share jurisdiction over matters in the Unorganized Territory without any real centralized leadership or administration, except for that provided by the Fiscal Administrator of the Unorganized Territory. The Fiscal Administrator is appointed by the Department of Audit and "provides information and assistance to the Legislature, the Unorganized Territory taxpayers, and State County offices which request funds for providing services in the Unorganized Territory Tax District." 5 M.R.S.A. § 246 (see Maine Department of Audit website, <www. Maine.gov/audit/unorg.html>).

The general division of fiscal responsibilities in the Unorganized Territory is as follows:

County Commissioners' Responsibilities

County Commissioners propose an annual budget for the services provided to the entire county, including a budget for services to portions of the Unorganized Territory within its boundaries. The services that counties provide for the Unorganized Territory include: fire protection, public dumps, roads and bridges, polling places, administrative services, watershed districts, law enforcement, E-911, animal control and other services that a municipality may provide that is not provided by the State. 30-A M.R.S.A. § 7501. In Piscataquis County, after public hearing, the County Commissioners adopt the budget, sending the portion of the budget for the unorganized territories to the State Tax Assessor and the Fiscal Administrator for the Unorganized Territory by January 1 of each year. 30-A M.R.S.A § 825 and 7503. In Somerset County, after public hearing, the County budget committee adopts the budget for approval by the County Commissioners, sending the portion of the budget for the unorganized territories to the State Tax Assessor and the Fiscal Administrator for the Unorganized Territory by January 1 of each year. 30-A M.R.S.A § 897 and 7503.

Fiscal Administrator's Responsibilities

On the basis of expenditure requests received from the County Commissioners, the Fiscal Administrator submits a bill of these requests to the Legislature by March 1 of each year. 36 M.R.S.A. § 1604.

Maine Legislature's Responsibilities

The Legislature considers these requests from the County Commissioners in determining the municipal cost component, and then enacts legislation establishing the municipal cost component by June 1 of each year. 36 M.R.S.A. § 1604. In this way, the Maine Legislature annually sets the amount to be raised by property taxes in the Unorganized Territory by determining the amounts of the municipal cost component: (1) for services provided by each county, and (2) for all other

portions of the municipal cost component. 36 M.R.S.A. § 1604. State law defines the "municipal cost component" to mean the cost of funding services in the Unorganized Territory Tax District (which includes all of the Unorganized Territory of the State) that would not be paid by the State if that District were a municipality. 36 M.R.S.A. § 1603. It includes the cost of education that the Unorganized Territory would pay if it were a municipality, the cost of services the State funds in the Unorganized Territory that are funded locally by a municipality, the cost of fire protection, and the cost of reimbursement by the State for services a county provides to the Unorganized Territory. 36 M.R.S.A. § 1603.

The Legislature separately appropriates funds to the Unorganized Territory School and Capital Working Fund to provide for the schooling of children in the Unorganized Territory from year-to-year. 20-A M.R.S.A. § 3351.

State Tax Assessor's Responsibility

Through the Bureau of Revenue Services, the State Tax Assessor is responsible for the assessment and collection of real and personal property taxes in the Unorganized Territory in much the same way that the assessor, tax collector and treasurer are responsible for administration of property taxes in a municipality. 36 M.R.S.A. § 302. The State Tax Assessor levies a tax known as the "Unorganized Territory Education and Services Tax" on all non-exempt real and personal property tax that is located in the Unorganized Territory Tax District on April 1 of each year. 36 M.R.S.A. § 1601. The State Tax Assessor levies this tax on the basis of a mill rate that is the sum of (1) a separate mill rate for each county to raise the amount certified by the Legislature as being the cost of county-provided services in the Unorganized Territory, and (2) a District-wide mill rate to raise the cost of all other portions of the "municipal cost component." 36 M.R.S.A. § 1601. The State Tax Assessor sends tax bills by August 1 each year to each taxpayer. 36 M.R.S.A. § 1602.

State Treasurer's Responsibility

Tax receipts are placed in the Unorganized Territory Education and Services Fund. The Treasurer of State transfers money from this Fund to pay expenses attributable to the municipal cost component. 36 M.R.S.A. § 1605. The Unorganized Territory is on a July 1 to June 30 fiscal year.

Municipalities

By contrast, municipalities have a simpler system of taxation and expenditures. Municipalities assess property taxes on the basis of the value on April 1 each year of real and personal property within that municipality. They collect those property taxes (under the authority of State statute) on a schedule of tax commitment and billing dates determined by the municipal legislative body. 36 M.R.S.A § 501-714. The amount of taxes to be raised depends upon the budget adopted by the municipal town meeting or council. 36 M.R.S.A § 505. Municipal officials (selectmen or councilors) administer municipal expenditures. 30-A M.R.S.A § 5721-5730. Municipal officials establish the fiscal year, which vary widely among municipalities (most municipalities have either a calendar year or July 1-to-June 30 fiscal year, but there are exceptions). A municipally appointed or elected planning board reviews proposals for subdivision development within the

municipality. 30-A M.R.S.A. § 4401-4407. In municipalities all taxation, expenditure and regulatory functions are carried out by the municipal government.

Plum Creek Plan Community Fund

Independent of the distribution of property tax revenue, the Plum Creek Plan proposes to establish a Community Fund to provide an estimated $1,000,000, or more, to provide for educational and recreational amenities in the Plan Impact Area. As each lot in the Plum Creek development is sold, Plum Creek will pay the greater of $1,000 or 1% of the sales price of each lot into a Community Fund, to be independently administered, as described in the Plan Description. This Fund does not require action by State government, and creates a dependable and legally binding source of capital that municipalities and counties in the Plan Impact Area may rely upon.

Traffic Impact Study
for the Community Impact & Infrastructure Analysis
of the Plum Creek Re-zoning Proposal

Prepared for:

Eastern Maine Development Corporation
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March 2006

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Executive Summary

The following Executive Summary is prepared for the reader's convenience, but is not intended to be a substitute for reading the full report.

Gorrill-Palmer Consulting Engineers, Inc. was retained by Eastern Maine Development Corporation to complete a Traffic Impact Study for the Community Impact & Infrastructure Analysis of the Plum Creek Re-zoning Proposal in the Moosehead Region. The proposed development is expected to start construction in 2009 with completion of construction in 2017.

Proposed for the site are 975 residential lots and a 250 and 500 room resort and a 90-acre sawmill. The proposed development is spread throughout the Moosehead Region and will have several access points as noted in the report.

Based on this study, our office has determined the following:

1. The proposed development is forecast to generate 1,568 trip ends and 1,353 trip ends for the weekday PM and Saturday peak hours, respectively. It is important to note that the trip generation forecasts above are conservative since they assume that all of the trips destined to and from the proposed development would be occurring during the PM peak hour. It is our opinion given that the majority of the development is likely to be recreational in nature, that they will be arriving at the development throughout the day and not all arriving during the PM peak hour. However for the purposes of the study we have assumed that all of the trips will be occurring during the PM peak hour unless otherwise noted.

   This level of trip generation would typically require a traffic permit from the MaineDOT, however this project falls underneath the jurisdiction of LURC. Therefore it is our understanding that a MaineDOT permit will not be required, however this study has been completed in accordance with the MaineDOT requirements.

2. The capacity analyses show that with the improvements proposed by MaineDOT as well as those associated with this project, the majority of the intersections within they study area the operate at an overall LOS of 'C' or better. At the intersection of Main Street/Pritham/Lily Bay Road we have recommended the installation of a traffic signal when the warrants are met, as well as the addition of turn lanes. Our analysis indicates that the intersection of Main Street / Pritham (Route 6/15) / Lily Bay Road will meet a traffic signal warrant with the full build out of the proposed development, based on the assumptions that have been made in this traffic study. It is our recommendation that the intersection be monitored by the developer and that a traffic signal be installed once the traffic volumes meet a traffic signal warrant.

3. Gorrill-Palmer Consulting Engineers, Inc. referenced the MaineDOT High Crash listings to determine if there were any high crash locations in the project

vicinity. Based on a review of the published history, there was one location within the greater Moosehead Lake Region located on Route 6/15 in Monson that is listed as a high crash location. The collision reports for this location indicate that of the thirteen crashes, five were due to snowy/icy roads and 5 were due to collision with animals. Therefore it is our opinion that there are not any correctable patterns to the collisions that are occurring at this location.

There are several roads in the Moosehead Lake Region that already have warning signs to watch for moose in the roadway. It is our recommendation that the developer work with MaineDOT to review the locations where the moose collisions are occurring and that additional signage be added if warranted.

4. Based on the increase in Average Annual Daily Traffic (AADT) on Lily Bay Road due to background growth and the increase in traffic due to the proposed development, Lily Bay Road at the Greenville town line and Lily Bay Road south of Village Street are forecast to have an AADT above 4,000 vehicles, which is the MaineDOT threshold for paving shoulders when they have a project along a roadway without paved shoulders. The sections of Lily Bay Road forecast to reach this level are in the vicinity of the Greenville town line and in the vicinity of Village Street. It is our recommendation that these locations be monitored and that if the AADT increases above the threshold due to the proposed development that the developer work with the MaineDOT and the towns to pave the shoulders.

5. Gorrill-Palmer Consulting Engineers, Inc. has evaluated the available sight lines at the proposed driveways in accordance with MaineDOT standards. Since formal site plans did not exist at the time this traffic study was completed, the driveway locations were determined from location maps and therefore are approximate. Before the construction or during the completion of construction plans for the driveways/intersections, the sight lines should be reevaluated and the locations adjusted to provide at least the minimum sight lines recommended in the body of the report.

   Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right-of-way, not exceed three feet in height and be maintained at or below that height. Signage should not interfere with sight lines. In addition, we recommend that during construction when heavy equipment is entering and exiting the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

Based on these findings, it is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that the local street system can accommodate the traffic generated by the proposed development with the proposed improvements.

I. *Existing and Proposed Site*

The project is located in the Moosehead Lake Region in the following towns and townships:

Big W TWP	Sapling TWP
West Middlesex Canal Grant	Chase Stream TWP
Soldiertown TWP T2 R3 NBKP	Indian Stream TWP
Thorndike TWP	Big Moose TWP
Brassua TWP	Harfords Point TWP
Long Pond TWP	Elliotsville TWP
Rockwood Strip T1 R1 NBKP	Bowdoin College Grant West TWP
Rockwood Strip T2 R1 NBKP	Beaver Cove
Sandwich Academy TWP	Lily Bay TWP
Taunton & Raynham Academy Grant	Days Academy TWP
Sandbar Tract TWP	Spencer Bay TWP
Misery Gore TWP	Frenchtown TWP
Misery TWP	Shawtown TWP

The proposed development will consist of several parcels of land throughout the Moosehead Lake Region as listed above. The development includes 975 residential building lots, 500-room and 250-room resorts and a 90-acre sawmill.

The majority of the development will be accessed via Route 6/15 though Greenville and it is also expected that some traffic will utilize Route 201. In addition, it is expected that the proposed lots on Indian Pond will be accessed from Route 201 in The Forks via an existing road that leads to the FPL Dam on Indian Pond.

II. *Background Traffic Conditions*

Gorrill-Palmer Consulting Engineers, Inc. based the study on the following information:

- An overall plan for the proposed development from Eastern Maine Development Corporation (EMDC) prepared by Kent Associates dated February 2006.
- High Crash Listings for 2002-2004 provided by the Maine Department of Transportation.
- Turning movement volumes collected in August 2005 and September 2005 at the following locations for the midday and pm peak:
  - Main Street(Route 15/6)/Eveleth Street
  - Main Street(Route 15/6)/Lilly Bay Road/Pritham Avenue(Route 15/6)
  - Pritham Avenue(Route 15/6)/Eveleth Street/Lakeview Street
  - Lily Bay Road/Pleasant Street
  - Lily Bay Road/State Park Road

- Route 15/6 / Rockwood Road
- Route 15/6 / Williams Mountain Road
- Route 15/6 /Route 6 Cutoff
- Route 15 / Route 201

➢ Based on these counts it was determined that the pm peak hour volumes were higher then the midday peak hour volumes, and therefore the pm peak hour was utilized for this study.

➢ Speed limits in the vicinity based on a map prepared by Eastern Maine Development Corporation (EMDC).

➢ Trip generation for a sawmill similar to the one proposed as part of this project provided by EMDC.

Route 201 and Route 6/15 from Greenville south are both classified as principal arterial roadways by the MaineDOT. Significant portions of Route 201 from Jackman to the south have been improved over the last several years, therefore this roadway is generally in good condition and typically has shoulders of five feet in width or greater. Route 6/15 south of Greenville typically is in fair condition and generally has shoulders that are five feet in width or greater. Route 6/15 north of Greenville is classified by MaineDOT as a major collector and is in fair condition with the majority of the shoulders appearing to be gravel. The section of Route 6/15 from Rockwood to Jackman appears to be in poor condition and is currently listed in the MaineDOT Biannual Transportation Improvement Plan (BTIP) for reconstruction of some sections. Lily Bay Road is also a major collector with gravel shoulders. The Annual Average Daily Traffic volumes as recorded by the MaineDOT are as follows:

AADT Volumes for Select Locations

Town	Location	2004
Beaver Cove	LILY BAY RD @ GREENVILLE TL	1060
Greenville	LILY BAY RD NE/O SR 6/15 (WEST ST)	5690
Greenville	LILY BAY RD S/O VILLAGE ST	3160
Greenville	SR 6/15 (MOOSEHEAD LAKE RD) @ RR OVERPASS	4940
Greenville	SR 6/15 (MOOSEHEAD LAKE RD) S/O SR 6/15	6150
Greenville	SR 6/15 W/O SR 6/15 (MOOSEHEAD LK RD)	5810
Jackman	SR 6/15 @ LONG POND TWP TL	810
Jackman	SR 6/15 E/O US 201	1180
Jackman	SR 6/US 201 NW/O SR 6/15	3200
Sandwich Academy Grant	SR 6/15 W/O Demo Road (GPCEI ATR DATA)	410
Jackman	SR 201 S/O Route 6 Cutoff (GPCEI ATR DATA)	1267
Greenville	SR 6/15 W/O Eveleth Street (GPCEI ATR DATA)	2426
Greenville	SR 6/15 S/O Lily Bay Road (GPCEI ATR DATA)	5391
Greenville	Lily Bay Road S/O Lily Bay State Park (GPCEI ATR DATA)	1451

Note: Compiled by MaineDOT unless noted

Predevelopment Traffic Volumes

Seasonal Adjustment

MaineDOT utilizes highway classifications of I, II, or III for state and local roadways. Type I roadways are defined as urban roadways, or those roads that typically see commuter traffic and experience little fluctuation from week to week throughout the year. Type II roadways, or arterial roadways are those that see a combination of commuter and recreational traffic and therefore experience moderate fluctuations during the year. Type III roadways, or recreational roadways are typically used for recreational purposes and experience dramatic seasonal fluctuation.

The roadways in the study area are considered Type III roadways by MaineDOT. Typically, volumes are adjusted to reflect the thirtieth highest hour (typically occurring in July or August) of traffic volumes in accordance with MaineDOT guidelines. Since the turning volumes referenced in Section II were collected at the end of August and in September, they were increased to the 30th highest hour by a factor of one and fourteen percent respectively.

The adjusted volumes are enclosed in Appendix C of this report.

Annual Growth

The proposed redevelopment of this site is anticipated to begin in 2009 and be completed over an eight year period with completion in 2017. Based on historic count data in the vicinity of the site, volumes have generally increased over the last twenty years at a rate of approximately one and a half percent per year. This background growth rate was applied to the raw volumes to result in 2017 volumes, resulting in an increase of twenty percent.

Other Development

Approved projects that are not yet constructed as well as projects for which applications have been filed are required to be included in the predevelopment volumes for this project. Gorrill-Palmer Consulting Engineers, Inc. has contacted Keith Smith at LURC to determine what projects may affect traffic volumes in the vicinity of this project. Mr. Smith identified a proposed development called Burnt Jacket, which is located in the Beaver Cove area which will initially consist of 70 lots and another 80 lots in the future. From our discussions with LURC, it is our understanding that this project is still in the rezoning process; however for the purposes of this traffic study we have included this project as other development even though it has not yet completed its permitting process. In addition our office contacted Dick Gould at the Town of Greenville regarding other development in the project area. Mr. Gould identified an additional 123 lots which would have access via Lily Bay Road and Pleasant Street. Mr. Gould also identified additional lots that would access Route 15 near the Greenville/Shirley town line, which are not forecast to enter the study area.

The raw volumes shown in Figures 2A, 2B, and 2C were seasonally and annually adjusted to result in the 2017 adjusted volumes, shown on Figures 3A, 3B, and 3C of Appendix A for the PM peak hours. Traffic from the other development, shown on Figures 4A, 4B, and 4C of Appendix A was combined with the adjusted volumes to result in the 2017 predevelopment volumes, as shown on Figures 5A, 5B, and 5C of Appendix A.

III. *Trip Generation*

The proposed project will consist of the following development:

975 residential building lots
500-room resort
250-room resort
90-acre sawmill

For the purposes of trip generation, Gorrill-Palmer Consulting Engineers, Inc. utilized the Institute of Transportation Engineers (ITE) publication *Trip Generation*, 7th Edition. Since data for recreational homes is not available, Gorrill-Palmer Consulting Engineers, Inc. utilized Land Use Code 210, Single Family Detached Housing, which should provide a conservative (high) estimate for this type of development. Gorrill-Palmer Consulting Engineers, Inc. also utilized Land Use Code 310, Hotel, for the resort.

Information was also provided by EMDC for a similar sized sawmill regarding trip generation for the proposed sawmill. The information provided by EMDC is as follows:

One 85 person shift 6:30 AM - 3:30 PM and a second shift with seven people.
30 log trucks/day arriving
15 lumber trucks/day leaving
15 chip trucks/day leaving
15 bark/mulch trucks/week leaving

Based on this information we assumed that 85 employees would be leaving and seven arriving during the PM peak hour yielding 92 trip ends (ins and outs). In addition, we estimate that there would be 60 trucks arriving and departing per day for a total of 120 truck trip ends per day with an additional 30 mulch truck trip end over the course of a week. For the purposes of this study we assumed that 10 percent of the daily truck trip ends would be occurring during the PM peak hour, resulting in 12 trip ends. A summary of the total estimated trip generation is presented below:

Trip Generation

Land Use Code	PM Peak Hour	Weekday	Saturday Peak Hour	Saturday
LUC 210: Single Family Detached Housing	1006	9481	813	10008
LUC 310: Hotel (For the Resort)	458	6128	540	6143
Sawmill	104	310	n/a	n/a
Total	**1568**	**15919**	**1353**	**16151**

It is important to note that the trip generation forecasts above are conservative (high) since they assume that all of the trips destined to and from the proposed development would be occurring during the pm peak hour. It is our opinion given that the majority of the development is likely to be recreational in nature that they will be arriving at the development throughout the day and not all arriving during the PM peak hour. However for the purposes of the study we have assumed that all of the trips will be occurring during the PM peak hour unless otherwise noted.

This level of trip generation would typically require a traffic permit from the MaineDOT, however this project falls underneath the jurisdiction of LURC. Therefore it is our understanding that a MaineDOT permit will not be required, however this study has been completed in accordance with the MaineDOT requirements.

The following Table summarizes the trip generation by the location of the proposed development.

Trip Generation Summary by Proposed Development Area

	Residential Lots	Resort	PM Peak Hour		
			Total	Enter	Exit
Intersection 1					
Lily Bay Heights A	128	0	131	85	46
Subtotal	**128**	**0**	**131**	**85**	**46**
Intersection 2					
Stevens Point	6	0	6	4	2
Lily Bay Resort	0	250	153	99	54
Lily Bay Heights B	20	0	20	13	7
Carleon Point	10	0	10	7	3
Subtotal	**36**	**250**	**189**	**123**	**66**
Intersection 3					
Beaver Cove A	24	0	24	16	8
Subtotal	**24**	**0**	**24**	**16**	**8**
Intersection 4					
Beaver Cove B	7	0	7	5	2
Northeast Highlands	16	0	16	10	6
Northeast Shore	17	0	17	11	6
Upper Wilson Pond West Shore	33	0	34	22	12
East Side Upper Wilson	17	0	17	11	6
Prong Pond West Shore	2	0	2	1	1
Subtotal	**92**	**0**	**93**	**60**	**33**
Intersection 5					
Prong Pond West Shore(1 or 2 driveways by town office)	10	0	10	7	3
Subtotal	**10**	**0**	**10**	**7**	**3**
Intersection 6					
South Shore	6	0	6	4	2
Subtotal	**6**	**0**	**6**	**4**	**2**
Intersection 7					
Moose Bay Village	68	0	69	45	24
Subtotal	**68**	**0**	**69**	**45**	**24**
Intersection 8					
Sapling	14	0	14	9	5
Subtotal	**14**	**0**	**14**	**9**	**5**
Intersection 9					
East Outlet Highlands A	25	0	26	17	9
East Outlet Highlands B	5	0	5	3	2
Burnham Pond North	15	0	15	10	5
Subtotal	**45**	**0**	**60**	**39**	**21**
Intersection 10					
Deep Cove Shore	33	0	34	22	12
Subtotal	**33**	**0**	**34**	**22**	**12**
Intersection 11					
Deep Cove Highlands	35	0	36	23	13
Subtotal	**35**	**0**	**36**	**23**	**13**
Intersection 12					
Big Moose Resort	0	500	305	198	107
Burnham Pond South	11	0	11	7	4
Road to Indian Pond	31	0	32	21	11
Subtotal	**42**	**500**	**348**	**226**	**122**

Trip Generation Summary by Proposed Development Area

	Residential Lots	Resort	PM Peak Hour		
			Total	Enter	Exit
Intersection 13					
Rockwood Village A&B	25	0	26	17	9
Subtotal	**25**	**0**	**26**	**17**	**9**
Intersection 14					
Rockwood/Kineo View	35	0	36	23	13
Subtotal	**35**	**0**	**36**	**23**	**13**
Intersection 15					
West Outlet C	5	0	5	3	2
Subtotal	**5**	**0**	**5**	**3**	**2**
Intersection 16					
West Outlet Highlands A	25	0	26	17	9
West Outlet Highlands B	5	0	5	3	2
Subtotal	**30**	**0**	**31**	**20**	**11**
Intersection 17					
South East Highlands	10	0	10	7	3
Subtotal	**10**	**0**	**10**	**7**	**3**
Intersection 18					
South Peninsula	132	0	135	88	47
Subtotal	**132**	**0**	**135**	**88**	**47**
Intersection 19					
Northwest Shore (Via Long Shore Road)	21	0	21	14	7
North Central Shore (Via Long Shore Road)	24	0	24	16	8
Northeast Shore (Via Long Shore Road)	29	0	30	20	10
Brassua Lake West Shore A-E	69	0	70	46	24
Subtotal	**143**	**0**	**145**	**96**	**49**
Intersection 20					
Big W North	15	0	15	10	5
Big W South	20	0	20	13	7
Subtotal	**35**	**0**	**35**	**23**	**12**
Smaller intersections					
Sandbar Tract	2	0	2	1	1
South East Shore Brassua Lake	3	0	3	2	1
South Shore Long Pond	5	0	5	3	2
Southeast shore on Indian Pond	13	0	13	8	5
Brassua Lake in the vicinity of Pages Point/Moose River	4	0	4	3	1
Subtotal	**27**	**0**	**27**	**17**	**10**
Sawmill	**0**	**0**	**104**	**13**	**91**
Total	**975**	**750**	**1568**	**966**	**602**

IV. *Trip Distribution*

Gorrill-Palmer Consulting Engineers, Inc. has obtained the ratio of entering and exiting traffic from the Institute of Transportation Engineers publication *Trip Generation,* 7th Edition for Land Use Code 210, Single Family Detached Housing and Land Use Code 310, Hotel. The ratio of entering and exiting traffic for the

sawmill was based on the information provided by EMDC for a sawmill of similar size.

LUC 210, Single Family Detached Housing

	PM Peak Hour:	65% Entering, 35% Exiting
	Saturday Peak Hour:	55% Entering, 45% Exiting
LUC 310, Hotel		
	PM Peak Hour:	60% Entering, 40% Exiting
	Saturday Peak Hour:	55% Entering, 45% Exiting
Saw Mill	PM Peak Hour:	13% Entering, 87% Exiting

V. *Trip Composition*

Gorrill-Palmer Consulting Engineers, Inc. has estimated that 100% of trips are new to the area and surrounding roadway system.

Primary Trips

The primary trip assignment is shown on Figures 6A, 6B and 6C for the PM peak hours.

VI. *Trip Assignment*

The trip assignment percentages are based on the population distribution within New England and the available routes that exist to access the site, primarily Route 6/15 and Route 201. The trip assignment is shown on Figures 6A, 6B, and 6C of Appendix A for the PM peak hour.

VII. *2017 Postdevelopment Traffic*

The anticipated year 2017 predevelopment traffic shown in Figures 5A, 5B, and 5C of Appendix A has been combined with the traffic forecast for the development shown in Figures 6A, 6B, and 6C of Appendix A to yield the 2017 postdevelopment traffic shown in Figures 7A, 7B, and 7C of Appendix A for the PM peak hours.

VIII. *Study Area*

The study area for this report includes the following intersections and connecting roadways:

- Main Street(Route 15/6)/Eveleth Street

- Main Street(Route 15/6)/Lily Bay Road/Pritham Avenue(Route 15/6)
- Pritham (Route 15/6)/Eveleth Street/Lakeview Street
- Lily Bay Road/Pleasant Street
- Lily Bay Road/State Park Road
- Route 15/6 / Rockwood Road
- Route 15/6 / Williams Mountain Road
- Route 15/6 /Route 6 Cutoff
- Route 15 / Route 201
- Intersections of the major site driveways with town/state roads.

IX. *Capacity Analyses*

Gorrill-Palmer Consulting Engineers, Inc. completed capacity analyses for the intersections listed in Section VIII.

The analysis was completed utilizing the Highway Capacity Software (HCS) for the unsignalized intersections. The Synchro capacity analysis software was utilized for intersections where traffic signalization was considered or recommended. Levels of service rankings are similar to the academic ranking system where an 'A' is very good with little control delay and an 'F' represents very poor conditions. A level of service 'D' and higher is desirable for a signalized intersection. At an unsignalized intersection, if the level of service falls below a 'D', an evaluation should be made to determine if a traffic signal is warranted.

The following table summarizes the relationship between delay and level of service for a signalized intersection:

Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay per Vehicle (sec)
A	Up to 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 following table summarizes the relationship between delay and level of service for an unsignalized intersection:

Level of Service Criteria for Unsignalized Intersections

Level of Service	Control Delay per Vehicle (sec)
A	Up to 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

For the predevelopment condition, analyses were completed with existing roadway configurations. The postdevelopment analyses were completed with the following additional improvements, which are also depicted on Figure 8 in the Appendix C:

- Restripe Pritham Street (Route 6/15) at the intersection of Main Street to provide a separate northbound left turn lane and through lane. This would require the removal of some on street parking
- Restripe Main Street at the intersection of Pritham Street to provide a separate right and left turn lane. This would require the removal of some on street parking. It is our recommendation that the developer work with the Town of Greenville to identify areas where new parking spaces could be created to offset the lost spaces.
- Install a fully-actuated traffic signal at the intersection of Main Street/Pritham Ave/Lily Bay Road. The existing traffic volumes at the intersection currently do not meet the traffic signal warrants. The intersection should be monitored and a traffic signal should be installed once one or more of the traffic signal warrants are met. Please see the traffic signal warrant discussion in Section XI.

It is important to note that the trip generation information utilized in this study is conservative since it was assumed that all of the trips destined to and from the proposed development would be occurring during the PM peak hour. As discussed in the trip generation section above, this is unlikely to be the case, since many of the trips destined to the proposed developments are likely to arrive at different time periods since a majority of the development is likely to be recreation in nature. Therefore it is our recommendation that the above intersection should be monitored and the above improvements implemented when/if they are required.

The results of the capacity analyses are summarized as follows; with the detailed analyses sheets are included in Appendix B.

Level of Service for Route 15 at Lily Bay Road (Signalized in Post Development)

Approach/Movement	2017 PM Peak Hour					
	Predevelopment		Postdevelopment with 100% Development Traffic		Postdevelopment with 50% Development Traffic	
	Delay	LOS	Delay	LOS	Delay	LOS
Route 15 EB LR	137	F	-	-	47	D
Route 15 EB L	-	-	65	E	-	-
Route 15 EB R	-	-	11	B	-	-
Lily Bay Road NB LT	9	A	-	-	-	-
Lily Bay Road NB L	-	-	63	E	42	D
Lily Bay Road NB T	-	-	5	A	12	B
Lily Bay Road SB TR	<1	A	74	E	52	D
Overall	-	-	41	D	37	B

As can be seen from the above capacity analyses the intersection of Main Street/Pritham/Lily Bay Road is forecast to operate at a low level of service in the postdevelopment condition. As stated above it is our opinion that the trip generation is conservative since all of the trips have been assumed to arrive during the peak hour, while in reality the trips are expected to arrive spread out throughout the day. Therefore we have also completed a capacity analysis for this intersection assuming that half of the trips will arrive at this intersection during the PM peak hour. As can be seen from the table for this analysis this intersection operates at a significantly improved level of service under this condition.

It is our understanding that the there has been discussion regarding the use of Eveleth Street as a bypass for some traffic to the intersection of Main Street/Pritham/Lily Bay Road. Eveleth Street currently is a residential street which traverses a hillcrest. Heading northbound on Eveleth Street approaching Main Street (Route 6/15) there is a significant grade that would need to be reduced if Eveleth Street were to be designated as a bypass route. Reduction of the grades on Eveleth Street would have significant impacts to the abutting driveways, side streets, properties, and would likely require the taking of several buildings. Therefore it is our opinion that the use and designation of Eveleth Street is not feasible.

Unsignalized Intersections

Level of Service for Lily Bay Road at State Park

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Lily Bay Road NB LT	7	A	8	A
State Park EB LR	9	A	10	A

Level of Service for Route 15 at 20 Mile Road

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 EB LT	7	A	8	A
20 Mile Road SB LR	9	A	12	B

Level of Service for Route 15 at Demo Road

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 EB LTR	8	A	8	A
Route 15 WB LTR	7	A	7	A
Demo Rod SB LTR	9	A	10	B

Level of Service for Route 15 at Route 6 Cutoff

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 EB LT	7	A	7	A
Route 6 Cutoff NB LR	9	A	9	A

Level of Service for Route 15 at Route 201

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 201 SB LT	8	A	8	A

Level of Service for Beaver Cove (Other Development)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Lily Bay Road NB LT	7	A	8	A
Burnt Jacket Road EB LR	9	A	10	A

Level of Service for Lily Bay Road at Pleasant Street

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Lily Bay Road NB LTR	8	A	9	A
Parking Lot EB LTR	18	C	45	E
Lily Bay Road SB LTR	9	A	10	B
Pleasant Street WB LTR	32	D	>60	F

Level of Service for Pritham Avenue at Eveleth Street

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Eveleth Street NB LTR	20	C	>60	F
Pritham Ave EB LTR	8	A	11	B
Eveleth Street SB LTR	16	C	>60	F
Pritham Ave WB LTR	8	A	9	A

Level of Service for Main Street at Eveleth Street

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Main Street NB LT	8	A	11	B
Eveleth Street EB LR	17	C	>60	F

Level of Service for Lily Bay Road at Intersection 1 (Lily Bay Heights A)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Lily Bay Road NB LT	-	-	7	A
Intersection 1 EB LR	-	-	9	A

Level of Service for Lily Bay Road at Intersection 2(Lily Bay Resort)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Lily Bay Road NB LT	-	-	8	A
Intersection 2EB LR	-	-	9	A

Level of Service for Lily Bay Road at Intersection 3 (Beaver Cove A)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Lily Bay Road NB LT	-	-	8	A
Intersection 3 EB LR	-	-	9	A

Level of Service for Lily Bay Road Intersection 4 (Beaver Cove B)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Lily Bay Road SB LT	-	-	8	A
Intersection 4 WB LR	-	-	12	B

Level of Service for Lily Bay Road at Intersection 5 (Prong Pond)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Lily Bay Road NB LT	-	-	8	A
Intersection 5 WB LR	-	-	13	B

Level of Service for Lily Bay Road at Intersection 6 (South Shore)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Lily Bay Road SB LT	-	-	8	A
Intersection 6 EB LR	-	-	13	B

Level of Service for Route 15 at Intersection 7 (Moose Bay Village)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 SB LT	-	-	10	B
Intersection 7 WB LR	-	-	>60	F

Level of Service for Route 15 at Intersection 8 (Sapling)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 SB LT	-	-	9	A
Intersection 8 WB LR	-	-	23	C

Level of Service for Route 15 at Intersection 9 (Highlands)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 NB LTR	-	-	9	A
Route 15 SB LTR	-	-	9	A
Intersection 9 WB LTR	-	-	37	E
Intersection 9 EB LTR	-	-	13	B

Level of Service for Route 15 at Intersection 10 (Deep Cove Shore)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 SB LT	-	-	9	A
Intersection 10 WB LR	-	-	29	D

Level of Service for Route 15 at Intersection 11 (Deep Cove Highlands)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 SB LT	-	-	10	A
Intersection 11 WB LR	-	-	52	F

Level of Service for Route 15 at Intersection 12 (Big Moose Resort)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 NB L	-	-	10	B
Intersection 12 EB LR	-	-	16	C

Level of Service for Route 15 Intersection 13 (Rockwood Village)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 SB LT	-	-	8	A
Intersection 13 WB LR	-	-	10	A

Level of Service for Route 15 at Intersection 14 (Rockwood/Kineo View)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 SB LT	-	-	8	A
Intersection 14 WB LR	-	-	21	C

Level of Service for Route 15 at Intersection 15 (West Outlet C)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 SB LT	-	-	9	A
Intersection 15 WB LR	-	-	18	C

Level of Service for Route 15 at Intersection 16 (West Outlet Highlands)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 NB LT	-	-	9	A
Intersection 16 EB LR	-	-	15	C

Level of Service for Route 15 at Intersection 17 (Southeast Highlands)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 SB LT	-	-	8	A
Intersection 17 WB LR	-	-	10	A

Level of Service for Route 15 at Intersection 18 (South Peninsula)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 NB LT	-	-	8	A
Intersection 18 EB LR	-	-	11	B

Level of Service for Demo Road at Intersection 19 (Long Shore Road)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Demo Road NB LTR	-	-	7	A
Demo Road SB LTR	-	-	7	A
Intersection 19 WB LTR	-	-	10	A
Intersection 19 EB LTR	-	-	8	A

Level of Service for Demo Road at Intersection 20 (Big W)

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Demo Road SB LT	-	-	7	A
Intersection 20 WB LR	-	-	9	A

Level of Service for Route 15 at Sawmill

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 NB LT	-	-	9	A
Sawmill EB LR	-	-	20	C

Level of Service for Route 15 at Sandbar Tract

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 SB LT	-	-	9	A
Sandbar Tract WB LR	-	-	23	C

Level of Service for Route 15 at Brassua Lake in the Vicinity of Pages Point/Moose River

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 NB LT	-	-	8	A
Pages Point EB LR	-	-	11	B

Level of Service for Route 15 at Southeast Shore Brassua Lake

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 NB LT	-	-	8	A
Brassua Lake EB LR	-	-	11	B

Level of Service for Route 15 at South Shore Long Pond

Approach/Movement	2017 PM Peak Hour			
	Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS
Route 15 NB LT	-	-	7	A
Long Pond EB LR	-	-	9	A

As can be seen from the above table the majority of the intersections are forecast to operate at a level of service 'C' or better. There are a couple of the intersections at which the movements exiting the proposed site driveways/side streets are forecast to operate at a level of service 'F', which is not uncommon at intersections where low volume roads intersect higher volume roadways. The first approach to address the low level of service is to consider separate left and right turn lanes exiting the minor approaches. Since at the majority of the proposed driveways the forecast traffic is expected to either turn right or left, separate exiting lanes are not justified. The second approach is to consider signalization, however the volumes exiting the proposed development driveways and the volumes on the major roadways are not high enough to warrant signalization. Therefore the level of service 'F' operation is acceptable at these locations.

X. *Lane Warrant Analyses*

Our office utilized the postdevelopment volumes included in the appendix to determine the need for left turn lanes entering proposed site access roads. MaineDOT utilizes the attached Figures 8-17 and 8-18 to assess the need for turn lanes. Based on the forecast volumes the two intersections that were considered for left turn treatments were the two intersections at which the resorts are proposed, intersections two and twelve on Lily Bay Road and Rockwood Road, respectively. Based on this analysis, left turn treatment is recommended for intersection twelve, on Rockwood Road which is where the 500 room resort is proposed based on the forecast volumes. Our office recommends that left turn bypass lanes be constructed in accordance with the MaineDOT Design Guide.

XI. *Signal Warrant Analysis*

Gorrill-Palmer Consulting Engineers, Inc. completed a signal warrant analysis for the intersection of Main Street / Pritham (Route 6/15) / Lily Bay Road. In order for a traffic signal to be installed, the location must meet one or more of the traffic signal warrants published in the 2003 Edition of the Manual on Uniform Traffic Control Devices, which are listed below:

Warrant #	Description
1	Eight-Hour Vehicular Volume
2	Four-Hour Vehicular Volume
3	Peak Hour
4	Pedestrian Volume
5	School Crossing
6	Coordinated Signal System
7	Crash Experience
8	Roadway Network

Gorrill-Palmer Consulting Engineers, Inc. utilized information from the turning movements completed at this intersection in August 2005. The volumes were not adjusted to represent average volumes since it is expected that the traffic signal will only be in operation during the peak seasons. We have also included in Appendix C a copy of the signal warrant evaluation sheets. Warrants 2 and 3 are the warrants that were examined as discussed below:

Warrant #2: *Four-Hour Vehicular Volume* – This warrant requires that for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor-street approach (one direction only) all fall above the applicable curve in figure 4C-1 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours. To evaluate this warrant forecasted traffic from the development were added to the existing traffic volumes at the intersection. Based on the forecast volumes and our assumptions the volumes are expected to satisfy one hour of the warrant, this warrant **is satisfied.**

Warrant #3: *Peak Hour* – This warrant requires that the criteria in either of the following two categories are met:

1. If all three of the following condition exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:

    a. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and

    b. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and

    c. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches.

2. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any for consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

Based on the 2005 collected volumes, the plotted points for the peak hour of the intersection meets the curves on the table for the 2017 postdevelopment conditions. Therefore this warrant **is satisfied** for the Main Street / Pritham (Route 6/15) / Lily Bay Road based on the assumptions that have been made in this traffic study.

It is our recommendation that the intersection be monitored by the developer and that a traffic signal be installed once the traffic volumes meet a traffic signal warrant.

XII. *Forecast Summer Average Daily Traffic*

The table below summarizes the 2004 Summer Average Daily Traffic (SADT) from the Maine DOT and the SADT based on the information that was collected by our office in 2005. We estimate based on past trends that these volumes will increase by 1.5% annually. We have estimated the 2017 volumes using this growth rate, which is present in the column titled 2017 without development. In addition, the 2017 SADT with the proposed development was forecast based on the ITE Trip Generation Manual and is presented in the far right column of the table.

Town	Location	2004	2017 without Development	2017 with Development
Beaver Cove	LILY BAY RD @ GREENVILLE TL	1342	1624	6195
Greenville	LILY BAY RD NE/O SR 6/15 (WEST ST)	7203	8716	13287
Greenville	LILY BAY RD S/O VILLAGE ST	4000	4840	9255
Greenville	SR 6/15 (MOOSEHEAD LAKE RD) @ RR OVERPASS	6254	7568	21475
Greenville	SR 6/15 (MOOSEHEAD LAKE RD) S/O SR 6/15	7785	9420	23828
Greenville	SR 6/15 W/O SR 6/15 (MOOSEHEAD LK RD)	7355	8900	18738
Jackman	SR 6/15 @ LONG POND TWP TL	1026	1242	2351
Jackman	SR 6/15 E/O US 201	1494	1808	1808
Jackman	SR 6/US 201 NW/O SR 6/15	4051	4902	4902
Sandwich Academy Grant	SR 6/15 W/O Demo Road (GPCEI ATR DATA)	519	623	1624
Jackman	SR 201 S/O Route 6 Cutoff (GPCEI ATR DATA)	1604	1925	6526
Greenville	SR 6/15 W/O Eveleth Street (GPCEI ATR DATA)	3071	3686	13534
Greenville	SR 6/15 S/O Lily Bay Road (GPCEI ATR DATA)	6825	8190	22578
Greenville	Lily Bay Road S/O Lily Bay State Park (GPCEI ATR DATA)	1837	2205	6806

The MaineDOT has a policy when they overlay or complete improvements to a roadway that has an SADT of 4,000 or greater to pave the shoulders. As can be seen in the above table several of the 2004 SADT are already above the 4,000 SADT threshold and it should be noted that Route 6/15 already has paved shoulders at several locations. The forecasted 2017 SADT with development increases Lily Bay Road at the Greenville town line and Lily Bay Road south of Village Street above the 4,000 SADT thresholds which would not occur without the development. It is our recommendation that these locations be monitored and that if the SADT increases above the threshold due to the proposed development that the developer work with the MaineDOT and the towns to pave the shoulders.

There are currently sidewalks along Main Street, Lily Bay Road, and on Pritham (Route 6/15) in the downtown area of Greenville. The existing sidewalks appear to be adequate to serve the existing business in the downtown area and would not be justified beyond these areas.

XIII. *Crash Data*

In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define High Crash Locations (HCL). Both criteria must be met in order to be classified as an HCL.

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual accident rate to the rate for similar intersections in the State. A CRF of less than 1.00 indicates a rate less than average) and:
2. A minimum of 8 crashes over a three-year period.

The following tables summarize the crash data provided by MaineDOT:

MaineDOT Crash Data for 2002-2004: Intersections

Node	Town	Intersection	# of Collisions	CRF	HCL?
7052	Monson	Route 6 & Bray Road	2	1.10	No
1280	Greenville	Washington & Prospect	1	2.91	No

MaineDOT Crash Data for 2002-2004: Road Segments

Nodes	Town	Street	From	To	# of Collisions	CRF	HCL?
1875-7047	Abbot	Route 6	Prides Loop	Monson Jct	4	1.11	No
7049-8999	Monson	Tenny Hill Rd	Monson/Abbot TL	1.8 m from TL	9	.82	No
7056-7057	**Monson**	**Greenville Rd**	**1.4 M SO of TL**	**Town line**	**13**	**1.24**	**Yes**
7059-8958	Shirley	Greenville Rd	U. Shirley Cor	Rt 15 Loop	6	1.07	No
6072-6073	Greenville	West Street	Beech St	Greenville/Little Squaq TL	2	1.29	No
6077-6078	Big Squaw	Route 6 & 15	South of the Forest Office		1	1.41	No
1299-1301	Greenville	Main Street	Foss St	Preo St	1	1.18	No
1098-1118	Greenville	Main Street	Scammon Rd	Townline	16	.72	No
7210-7240	Lily Bay	Lily Bay Road	Storehouse Rd	Southbrook Rd	1	1.41	No
7242-7244	Lily Bay	Lily Bay Road	North Shore Rd	Spencer Bay Rd	3	1.79	No

Based on the published history, one location within the study area is considered a High Crash Location, Greenville Road south of the town line in Monson. Our office requested the collision reports for this location from the MaineDOT. They indicated that of the 13 crashes 5 were due to snowy/icy roads and 5 were due to collision with animals. Therefore it is our opinion that they are not any correctable patterns to the collisions that are occurring at this location.

The data requested from the MaineDOT included data for 232 collisions of which there was only one collision involving a pedestrian and one collision involving a bicycle. In addition 47 of the collisions were with Moose, 22 of them with deer and 60 ran off the road collisions. There are several roads in the Moosehead Lake Region that already have warning signs to watch for Moose in the roadway. It is our

recommendation that they developer work with MaineDOT to review the locations where the moose collisions are occurring and that additional signage be added if warranted.

Crash data is provided in Appendix C of this report.

XIV. *Sight Line Analysis*

The Maine Department of Transportation has guidelines for sight distances at driveways, which are shown on the following table:

Basic Safety Standards for Sight Distance

Posted Speed (mph)	MaineDOT Standard
25	200
30	250
35	305
40	360
45	425
50	495
55	570

Gorrill-Palmer Consulting Engineers, Inc. has evaluated the available sight lines at the majority of the proposed driveways in accordance with MaineDOT standards. Since formal site plans did not exist at the time this traffic study was completed the driveway locations were located from location maps only, therefore they are approximate only. Before the construction or during the completion of construction plans for the driveways/intersections the sight lines should be reevaluated and the locations adjusted to provide the minimum sight lines recommended in the above table or greater where feasible.

The MaineDOT standards are as follows:

Driveway observation point:	10 feet off major street travelway
Height of eye at driveway:	3 ½ feet above ground
Height of approaching vehicle:	4 ¼ feet above road surface

Based on our observations, sight distances at the site driveways are as follows:

Locations	Posted Speed Limit MPH	Available Sight Distance		Recommended Sight Distance
		Looking Left	Looking Right	
Intersection 1-Lily Bay Heights A-(Intersection should be moved to the north to be at pole 417S/348S to obtain sight lines listed.)	45	425'±	425'±	425'
Intersection 2-Lily Bay Resort-(Casey's Road)	45	550'±	> 600'	425'
Intersection 3-Beaver Cove A-(Pole 276/207)	45	>450'	>450'	425'
Intersection 4 –Beaver Cove B-(B-52 Site, tree by pole 258 needs to be removed)	45	>425'	>425'	425'
Intersection 5-Prong Pond-(Assumes access will be shared with the existing Beaver Cove Town Office driveway)	45	425'±	425'±	425'
Intersection 6-South Shore-(Driveway should be located across from marina driveway)	45	>425'	>425'	425'
Intersection 7-Moose Bay Village-(Assumes Williams Brook Road is access point for development)	45	425'±	425'±	425'
Intersection 8-Sapling	55	>570	>570'	520'
Intersection 9-Highlands-(Intersection will need to be field located with a profile of Route 6/15 completed to locate the driveway to obtain the optimal sight lines.)	55	520'±	520'±	520'
Intersection 10-Deep Cove Shore-(recommend moving intersection to the vicinity of pole 267/164 to increase sight lines)	55	520'±	520'±	520'
Intersection 11-Deep Cove Highlands-(Intersections should be aligned with intersection 12)	55	>570	>570	520'
Intersection 12-Big Moose Resort	55	>570	>570	520'
Intersection 13-Rockwood Village-(Intersection will need to be located approximately 200' to the east of Dam Road to obtain the recommended sight lines)	55	600'±	600'±	520'
Intersection 14-Rockwood/Kineo View-(pole 7/25/472)	55	>800'	>800'	520'
Intersection 15-West Outlet C-(Price Road)	55	>570'	>570'	520'
Intersection 16-West Outlet Highlands	55	>570'	>570'	520'
Intersection 17-Southeast Highlands-(Intersection should be relocated to the north as close to the guardrail as practicable)	55	570'±	>800'	520'
Intersection 18-South Peninsula	55	700'±	700'±	520'
Intersection 19-Long Shore Road (The hillcrest in Demo Road will need to be lowered to obtain the recommended sight lines)	Not posted assumed 45	425'±	425'±	425'
Intersection 20 –Big W-No Speed was posted (Williams Brook Road)	Not posted assumed 45	425'±	425'±	425'
Exiting Demo Road onto Route 6/15	55	700±	670±	520
Exiting 20 Mile Road onto Route 6/15 at Bridge	25	>200	>200	200
Intersection for Sandbar Tract lots (Mastermen Farm Road)	55	>800'	>570'	520'
Intersection of Sawmill/Route 6/15 - Speed 55 mph	55	>520'	>520'	520'
Intersection of Route 6/15 / Route 6 Cutoff	55	>570'	>570'	520'
Intersection of Route 201/6/15	35	600'±	800'±	305'
Intersection of Route 201/Route 6 Cutoff	55	700'±	570'±	520'
Route 201/Lake Moxie Road	25	350'±	350'±	200'

Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right of way, not exceed three feet in height and be maintained at or below that height. Signage should not interfere with sight lines. In addition, we recommend that during construction, when heavy equipment is

entering and exiting the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

XV. *Conclusions*

Proposed for the site are 975 residential lots and a 250 and 500 room resort and a 90-acre sawmill. The proposed development is spread throughout the Moosehead Region and will have several access points as noted in the report.

Based on this study, our office has determined the following:

1. The proposed development is forecast to generate 1,568 trip ends and 1,353 trip ends for the weekday PM and Saturday peak hours, respectively. It is important to note that the trip generation forecasts above are conservative since they assume that all of the trips destined to and from the proposed development would be occurring during the pm peak hour. It is our opinion given that the majority of the development is likely to be recreational in nature, that they will be arriving at the development throughout the day and not all arriving during the PM peak hour. However for the purposes of the study we have assumed that all of the trips will be occurring during the PM peak hour unless otherwise noted.

   This level of trip generation would typically require a traffic permit from the MaineDOT, however this project falls underneath the jurisdiction of LURC. Therefore it is our understanding that a MaineDOT permit will not be required, however this study has been completed in accordance with the MaineDOT requirements.

2. The capacity analyses show that with the improvements proposed by MaineDOT as well as those associated with this project, the majority of the intersections within they study area the operate at an overall LOS of 'C' or better. At the intersection of Main Street/Pritham/Lily Bay Road we have recommended the installation of a traffic signal when the warrants are met, as well as the addition of turn lanes. Our analysis indicates that the intersection of Main Street / Pritham (Route 6/15) / Lily Bay Road will meet a traffic signal warrant with the full build out of the proposed development, based on the assumptions that have been made in this traffic study. It is our recommendation that the intersection be monitored by the developer and that a traffic signal be installed once the traffic volumes meet a traffic signal warrant.

3. Gorrill-Palmer Consulting Engineers, Inc. referenced the MaineDOT High Crash listings to determine if there were any high crash locations in the project vicinity. Based on a review of the published history, there was one location within the greater Moosehead Lake Region located on Route 6/15 in Monson that is listed as a high crash location. The collision reports for this location indicate that of the thirteen crashes, five were due to snowy/icy roads and 5 were due to collision with animals. Therefore it is our opinion that there are not any correctable patterns to the collisions that are occurring at this location.

   There are several roads in the Moosehead Lake Region that already have warning signs to watch for moose in the roadway. It is our recommendation that

the developer work with MaineDOT to review the locations where the moose collisions are occurring and that additional signage be added if warranted.

4. Based on the increase in Average Annual Daily Traffic (AADT) on Lily Bay Road due to background growth and the increase in traffic due to the proposed development, Lily Bay Road at the Greenville town line and Lily Bay Road south of Village Street are forecast to have an AADT above 4,000 vehicles, which is the MaineDOT threshold for paving shoulders when they have a project along a roadway without paved shoulders. The sections of Lily Bay Road forecast to reach this level are in the vicinity of the Greenville town line and in the vicinity of Village Street. It is our recommendation that these locations be monitored and that if the AADT increases above the threshold due to the proposed development that the developer work with the MaineDOT and the towns to pave the shoulders.

5. Gorrill-Palmer Consulting Engineers, Inc. has evaluated the available sight lines at the proposed driveways in accordance with MaineDOT standards. Since formal site plans did not exist at the time this traffic study was completed, the driveway locations were determined from location maps and therefore are approximate. Before the construction or during the completion of construction plans for the driveways/intersections, the sight lines should be reevaluated and the locations adjusted to provide at least the minimum sight lines recommended in the body of the report.

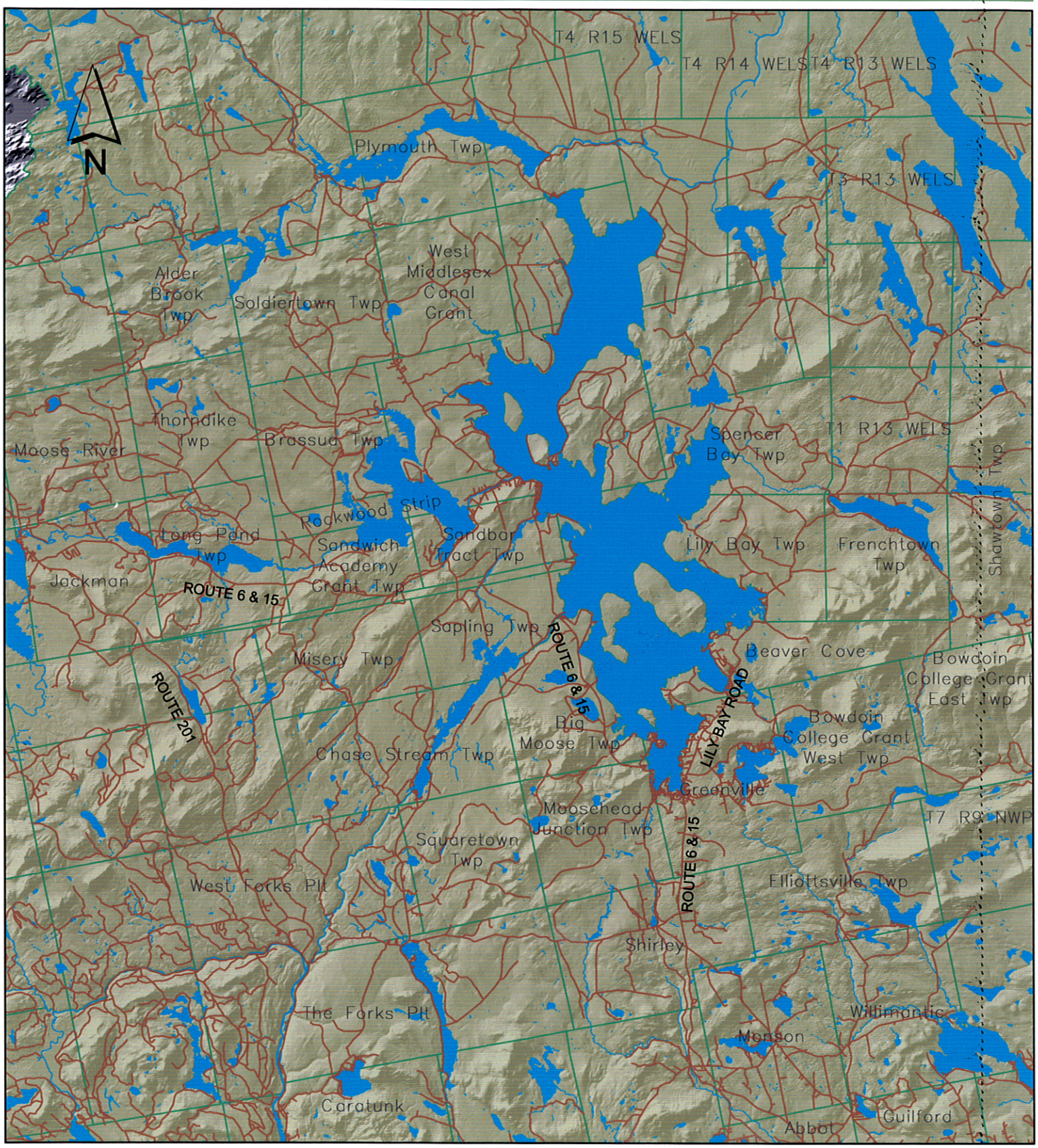
   Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right-of-way, not exceed three feet in height and be maintained at or below that height. Signage should not interfere with sight lines. In addition, we recommend that during construction when heavy equipment is entering and exiting the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

Based on these findings, it is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that the local street system can accommodate the traffic generated by the proposed development with the proposed improvements.

Appendix A

Vicinity Map

Figure No. 1



PLUM CREEK'S REZONING PROPOSAL, MOOSEHEAD LAKES REGION, MAINE

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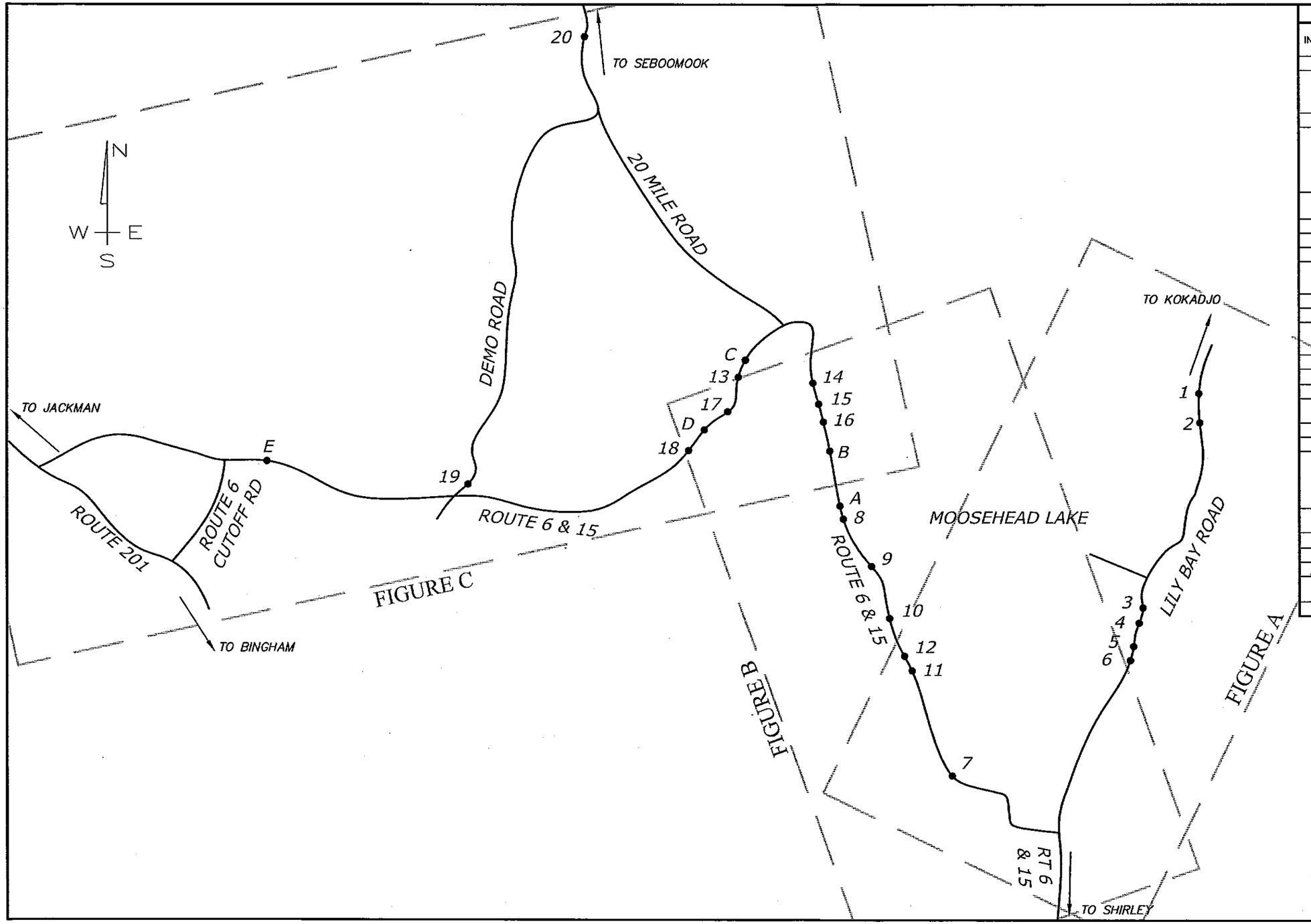
www.gorrillpalmer.com

JN: 1381.01
DATE: MAR 2006
SOURCE: MAINE GIS WEBSITE

Key Map

Figure No. 1



DEVELOPMENT KEY

INTERSECTION	DEVELOPMENT NAME	NO. LOTS/ROOMS
1	Lily Bay Heights A	128
2	Stevens Point Lily Bay Resort Lily Bay Heights B Carleon Point	36/250
3	Beaver Cove A	24
4	Beaver Cove B Northeast Highlands Northeast Shore Upper Wilson Pond West Shore East Side Upper Wilson Prong Pond West Shore	92
5	Prong Pond West Shore (1 or 2 driveways by town office)	10
6	South Shore	6
7	Moose Bay Village	68
8	Sapling	14
9	East Outlet Highlands A East Outlet Highlands B Burnham Pond North	45
10	Deep Cove Shore	33
11	Deep Cove Highlands	35
12	Big Moose Resort Burnham Pond South Road to Indian Pond	42/500
13	Rockwood Village A&B	25
14	Rockwood/Kineo View	35
15	West Outlet C	5
16	West Outlet Highlands A West Outlet Highlands B	30
17	South East Highlands	10
18	South Peninsula	132
19	Northwest Shore (Via Long Shore Road) North Central Shore (Via Long Shore Road) Northeast Shore (Via Long Shore Road) Brassua Lake West Shore A-E	143
20	Big W North Big W South	35
A	Sawmill	N/A
B	Sandbar Tract	2
C	South East Shore Brassua Lake	3
D	Brassua Lake in the vicinity of Pages Point/Moose River	4
E	South Shore Long Pond	5

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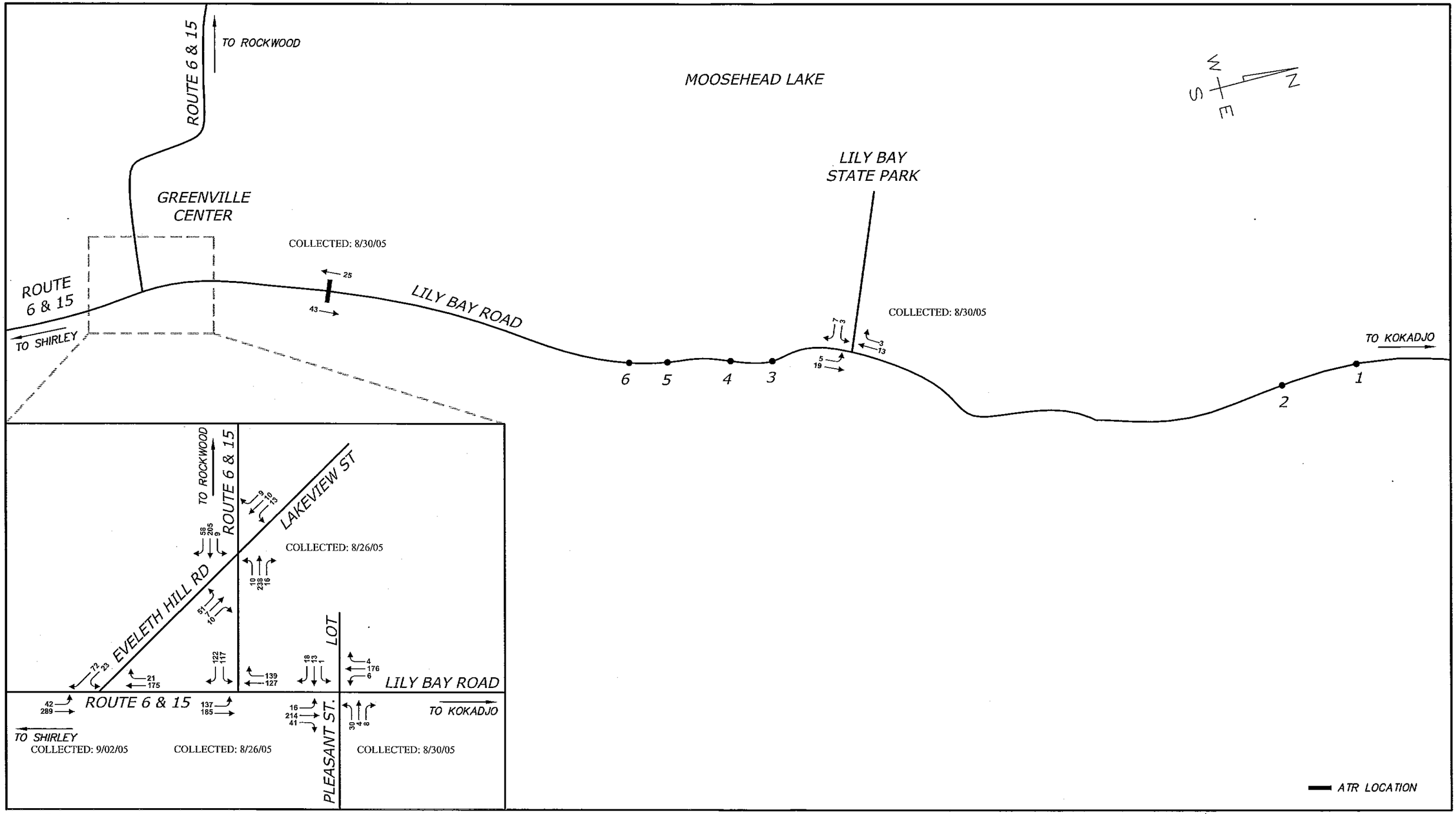
Raw Volumes

Figure No. 2A



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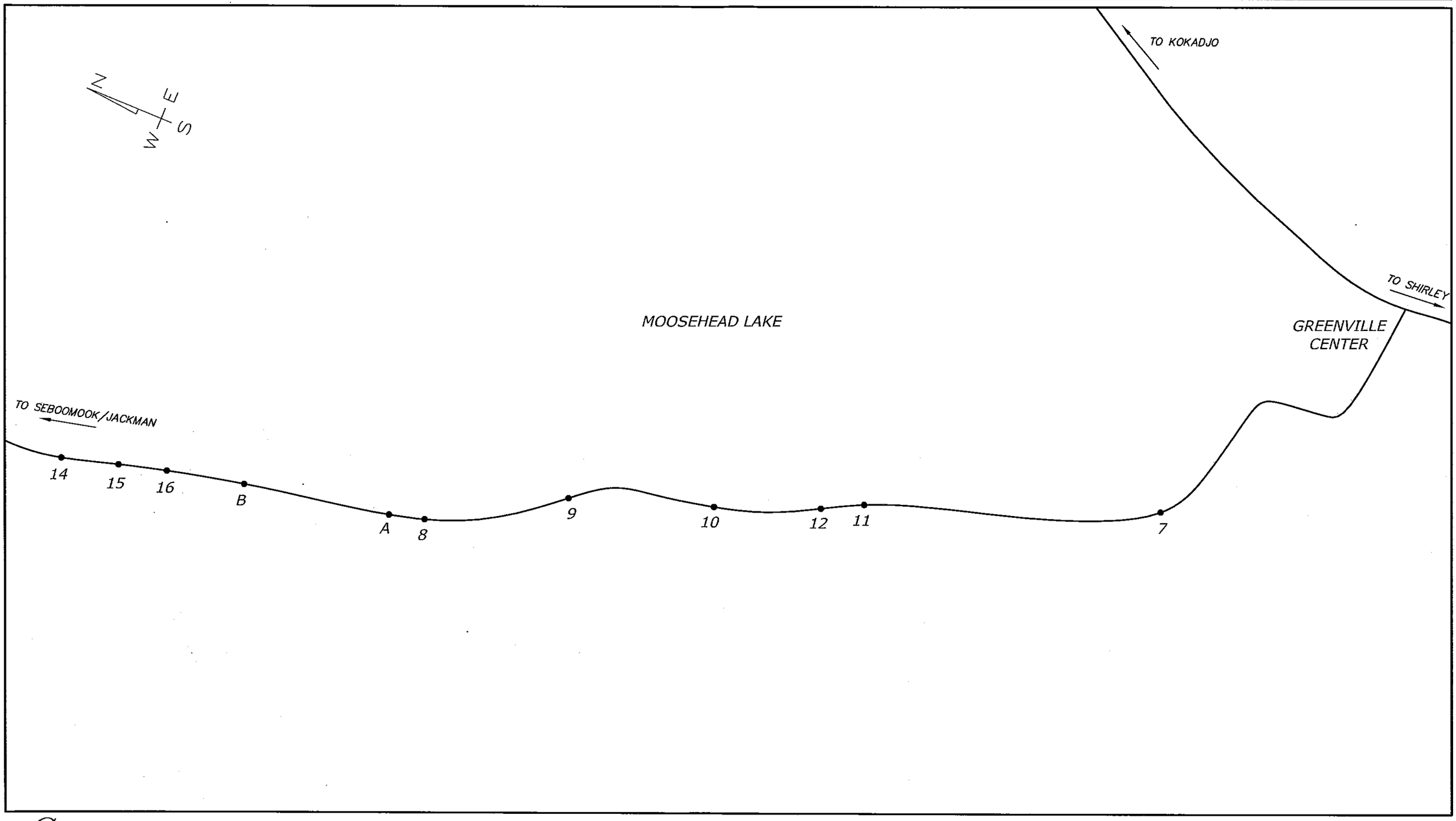

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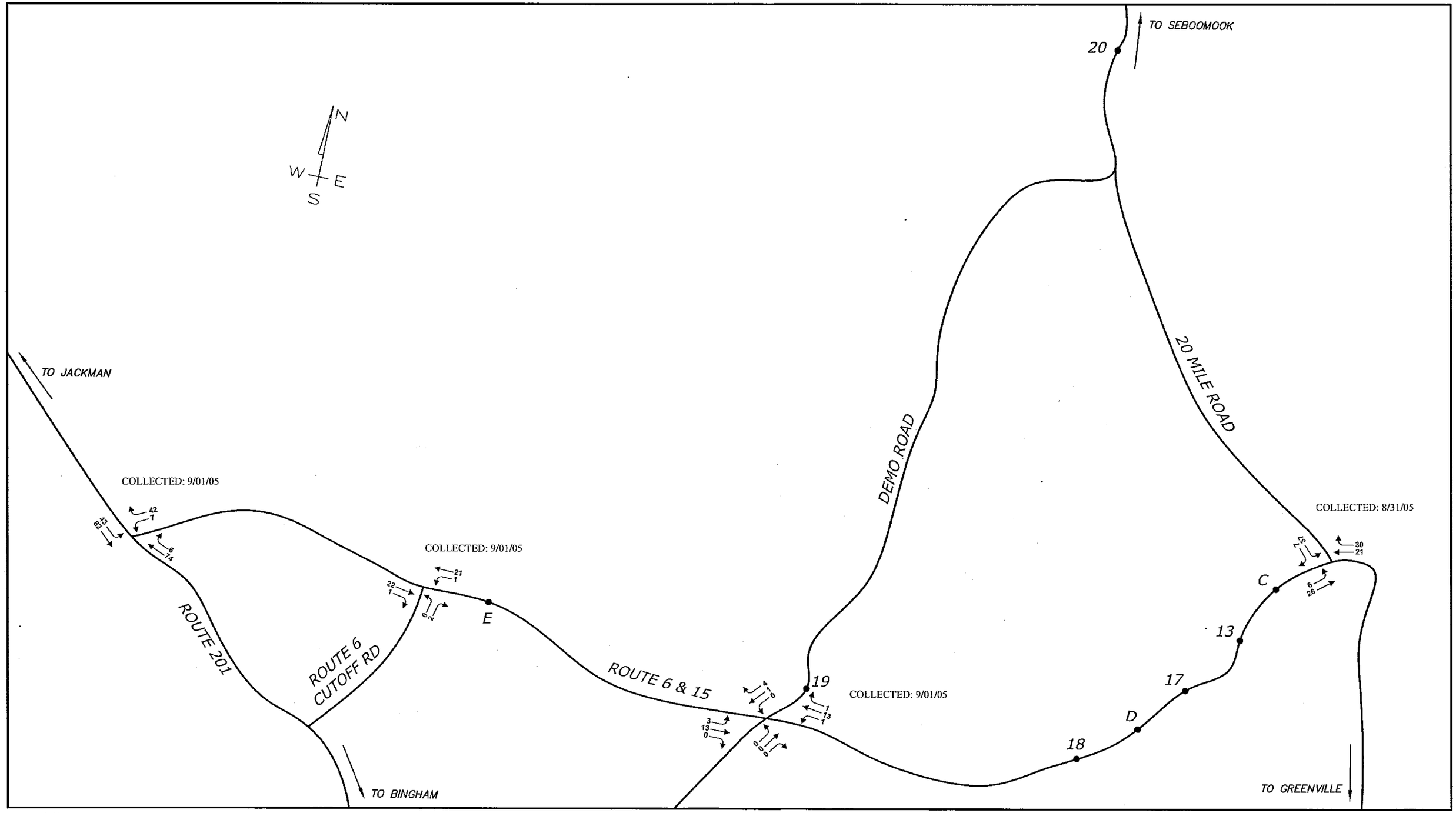

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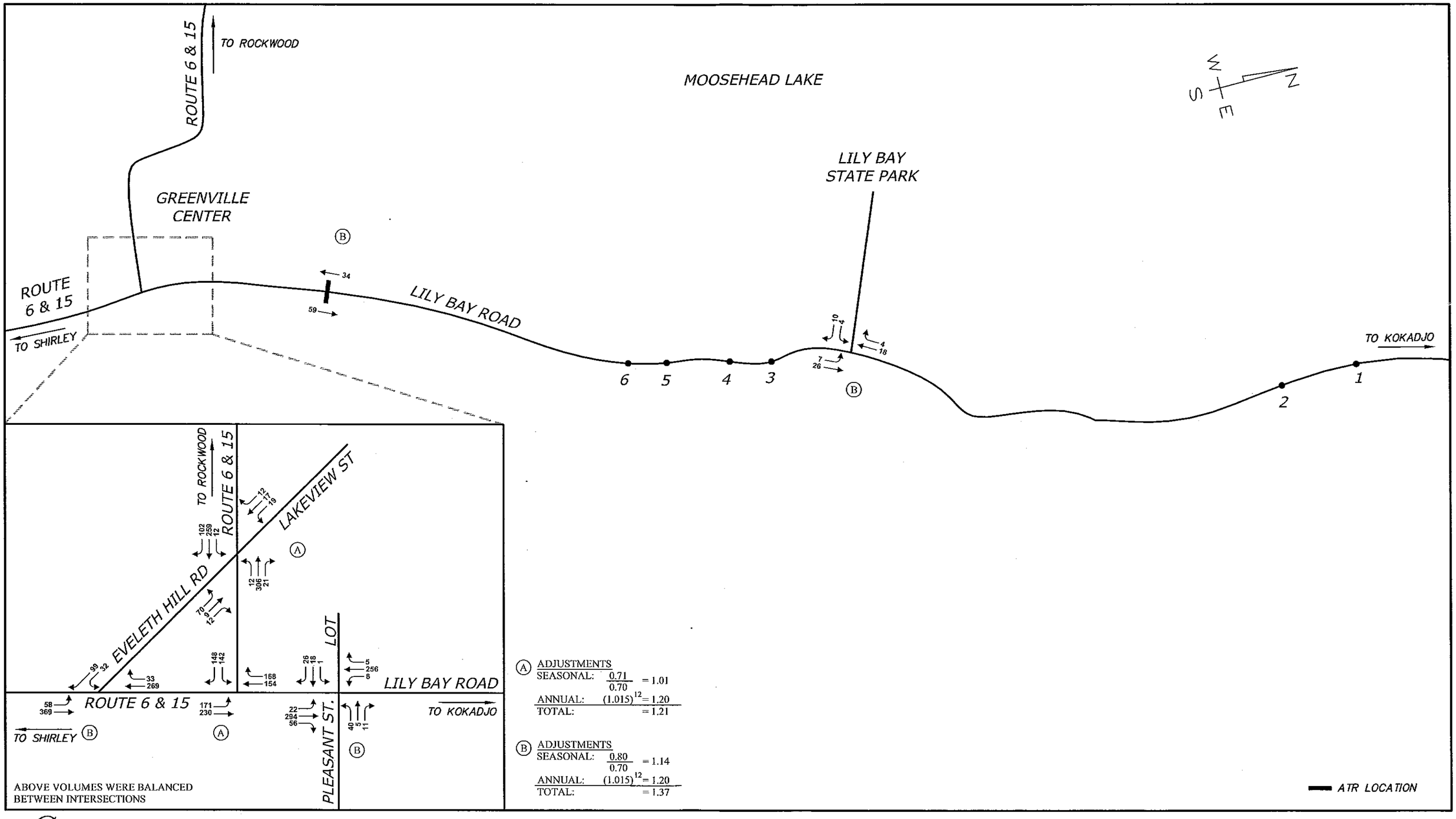
Adjusted Volumes

Figure No. 3A



ABOVE VOLUMES WERE BALANCED BETWEEN INTERSECTIONS

(A) ADJUSTMENTS

SEASONAL: $\frac{0.71}{0.70} = 1.01$

ANNUAL: $(1.015)^{12} = 1.20$

TOTAL: $= 1.21$

(B) ADJUSTMENTS

SEASONAL: $\frac{0.80}{0.70} = 1.14$

ANNUAL: $(1.015)^{12} = 1.20$

TOTAL: $= 1.37$

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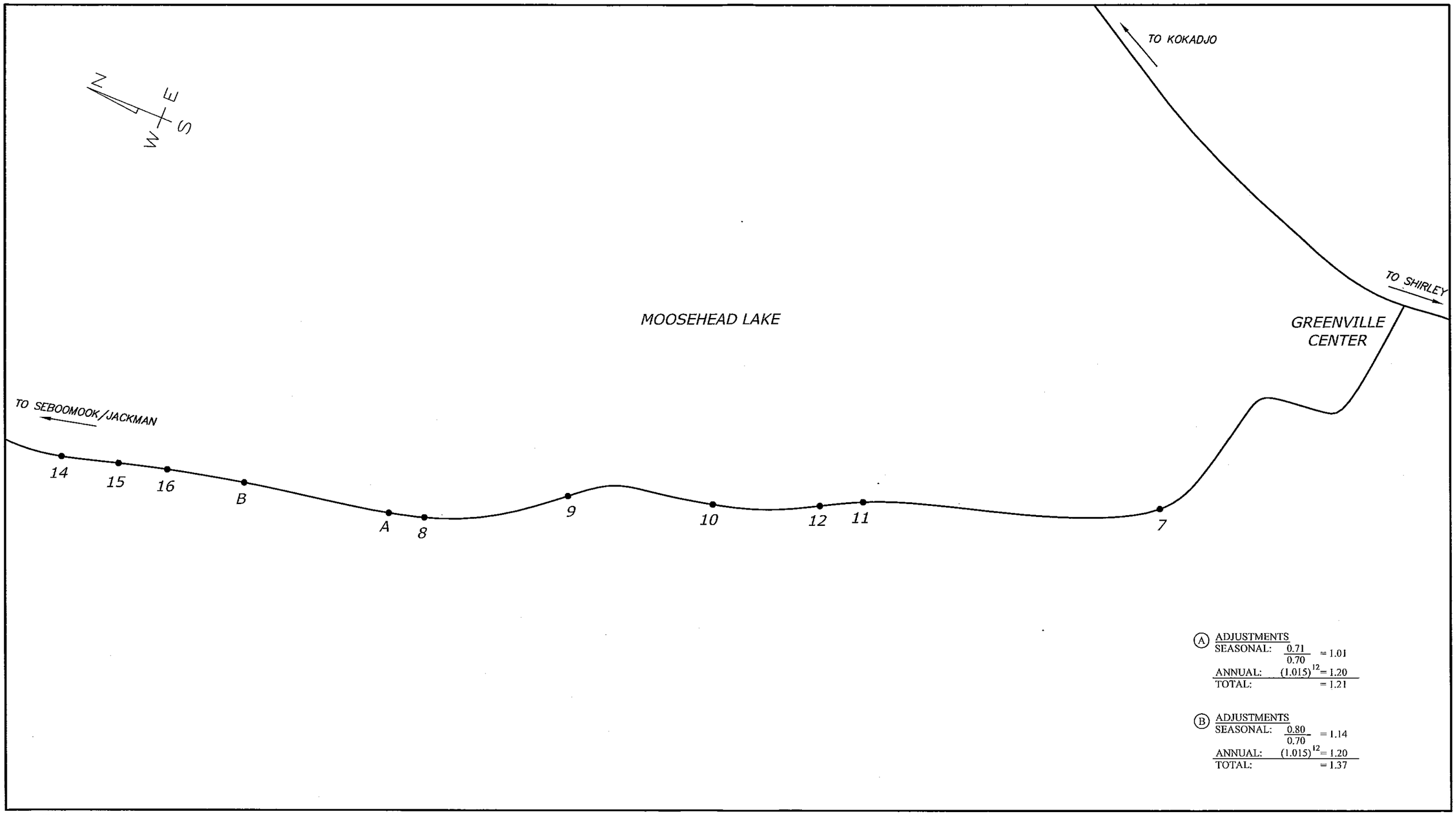
Adjusted Volumes

Figure No. 3B



Ⓐ ADJUSTMENTS
SEASONAL: $\frac{0.71}{0.70} = 1.01$
ANNUAL: $(1.015)^{12} = 1.20$
TOTAL: $= 1.21$

Ⓑ ADJUSTMENTS
SEASONAL: $\frac{0.80}{0.70} = 1.14$
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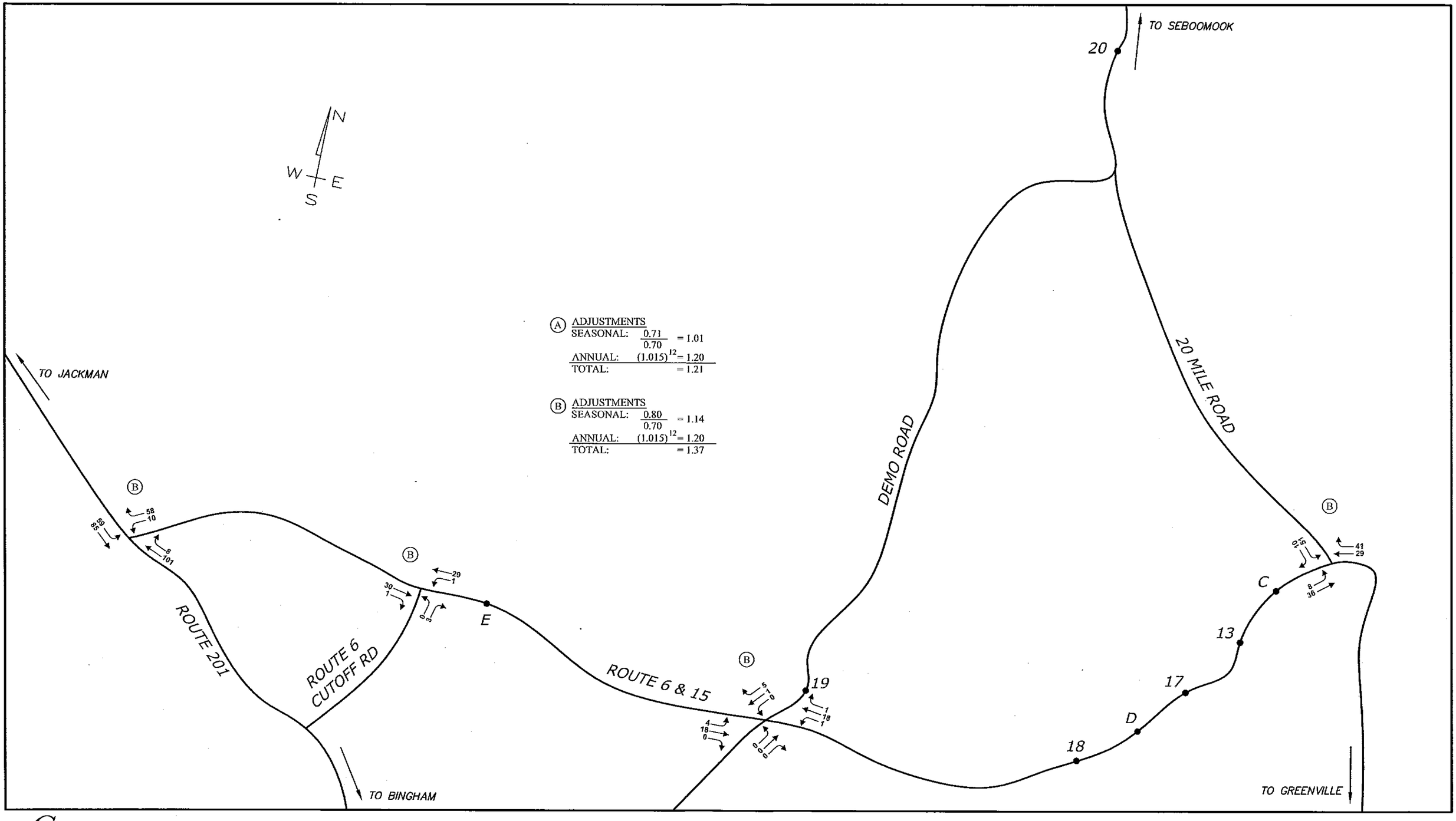
Adjusted Volumes

Figure No. 3C



(A) ADJUSTMENTS
SEASONAL: $\frac{0.71}{0.70} = 1.01$
ANNUAL: $(1.015)^{12} = 1.20$
TOTAL: $= 1.21$

(B) ADJUSTMENTS
SEASONAL: $\frac{0.80}{0.70} = 1.14$
ANNUAL: $(1.015)^{12} = 1.20$
TOTAL: $= 1.37$

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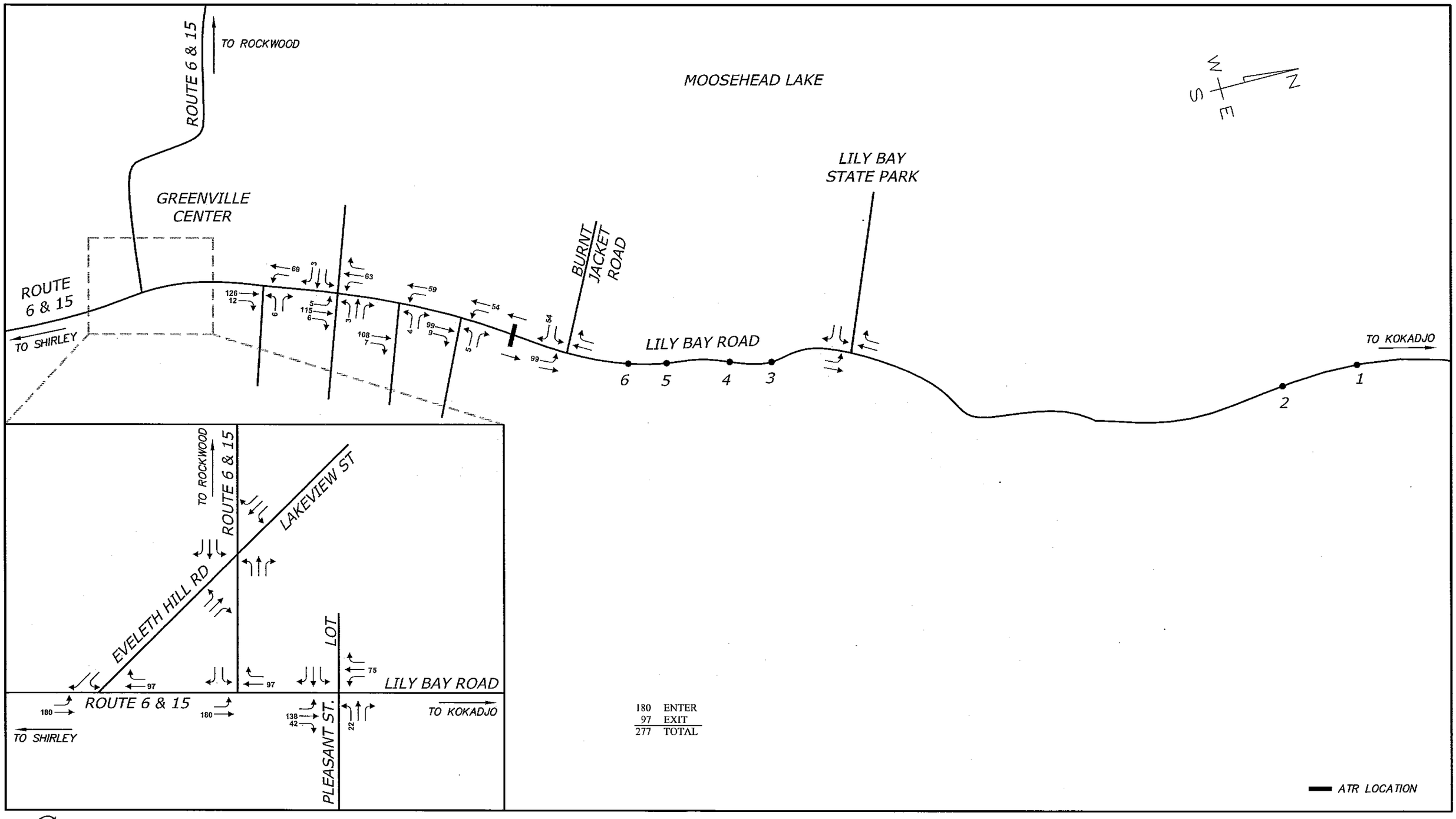

180	ENTER
97	EXIT
277	TOTAL

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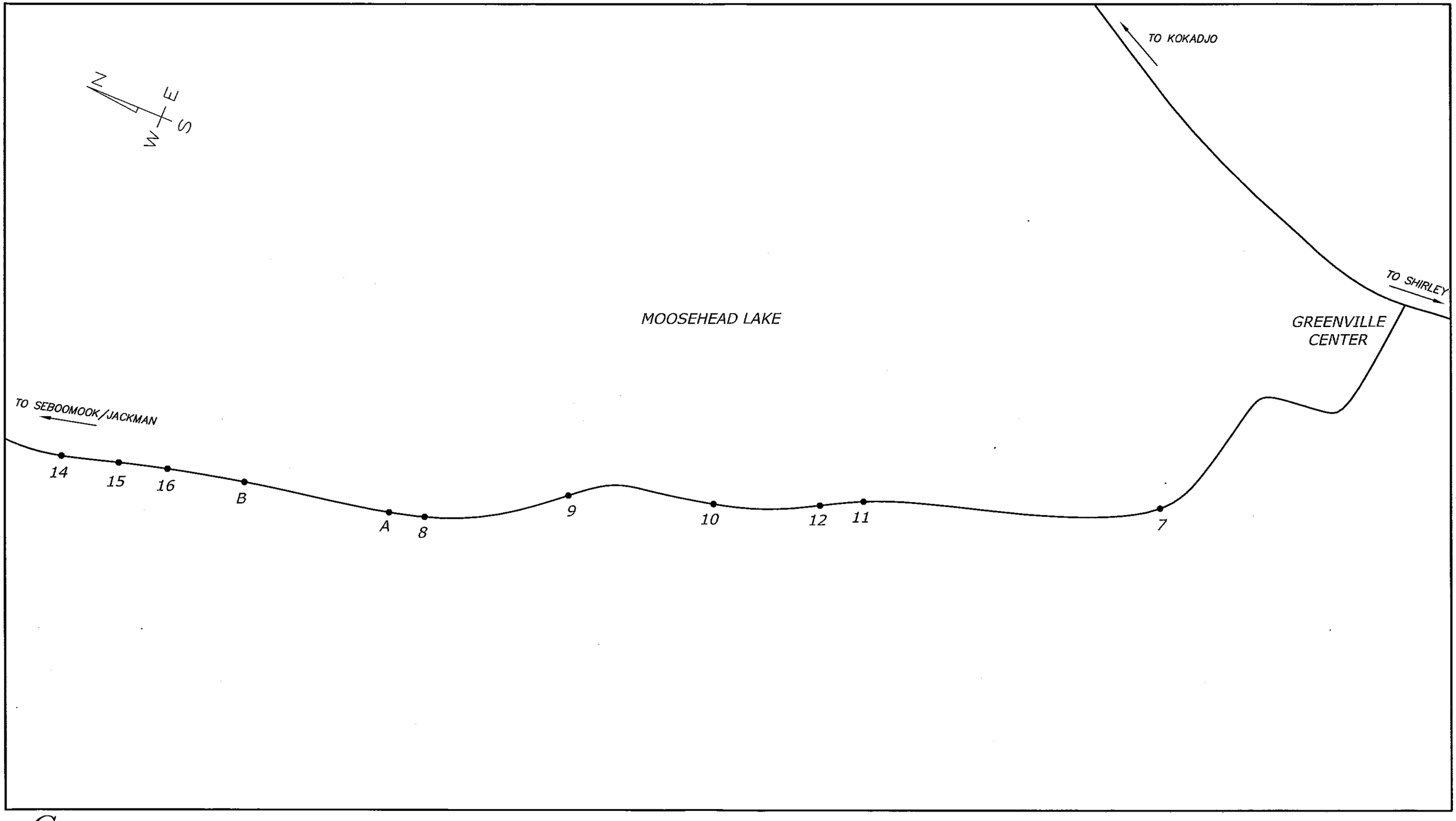
Other Development

Figure No. 4B



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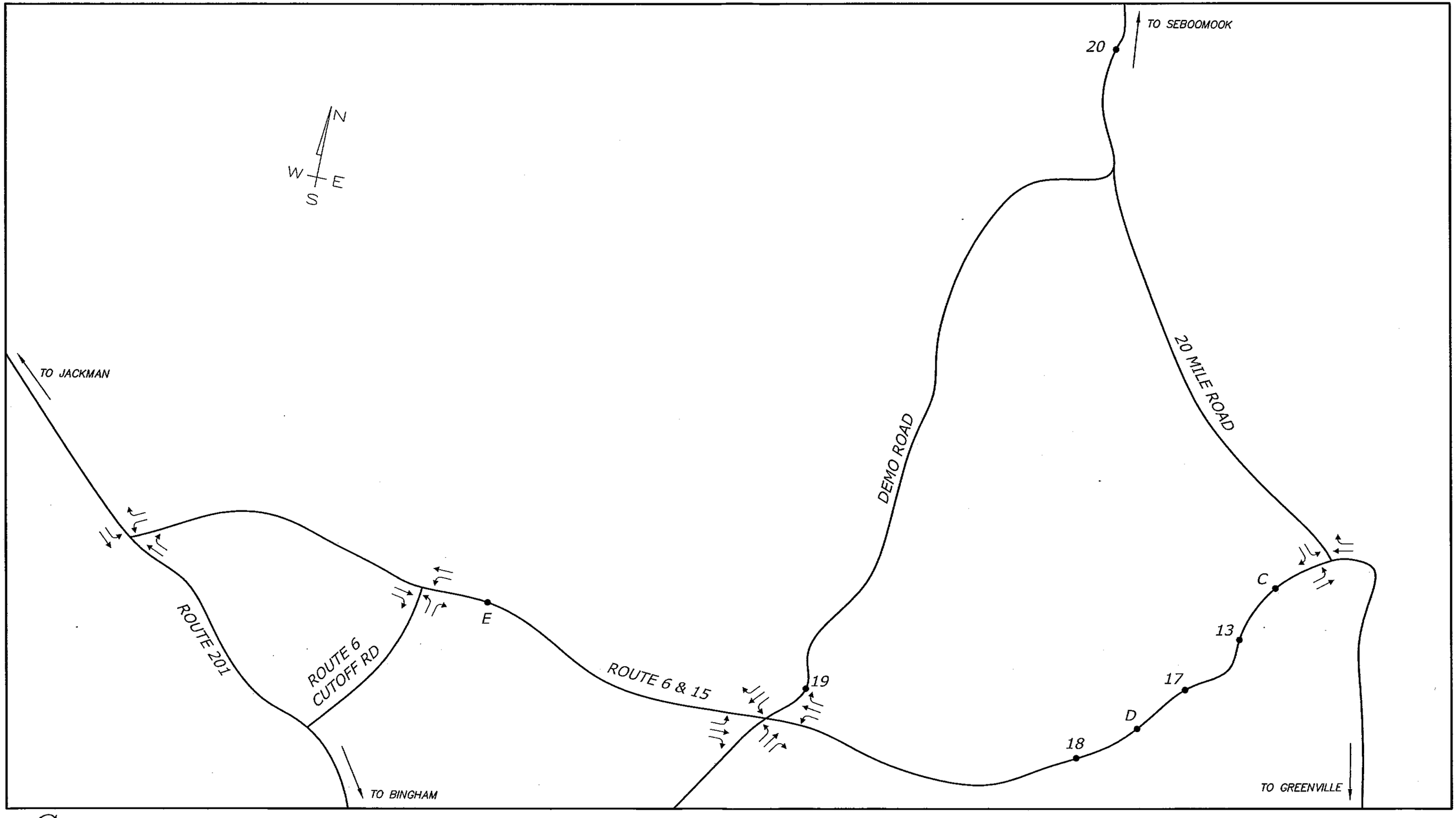

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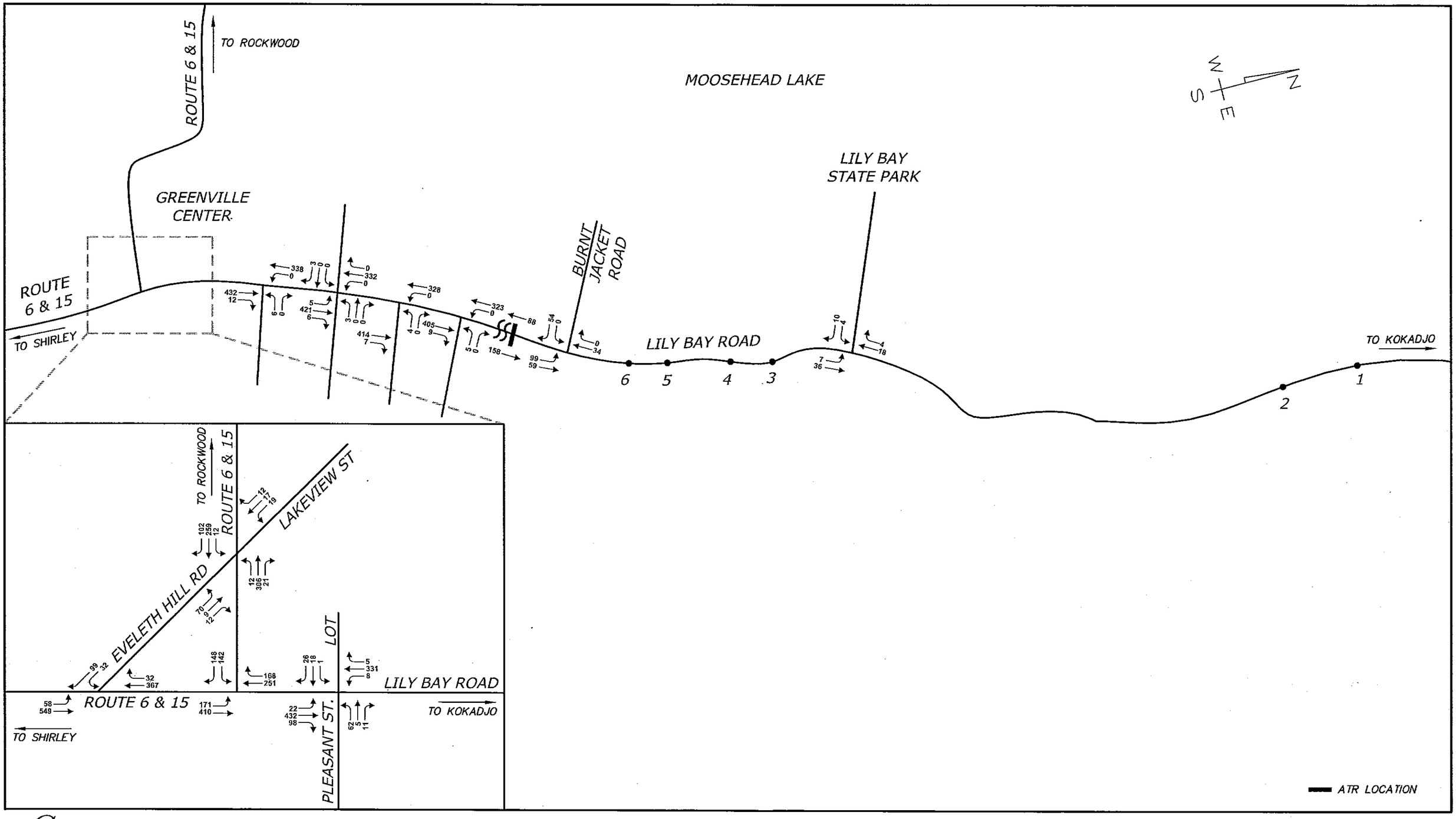
Predevelopment Volumes

Figure No. 5A



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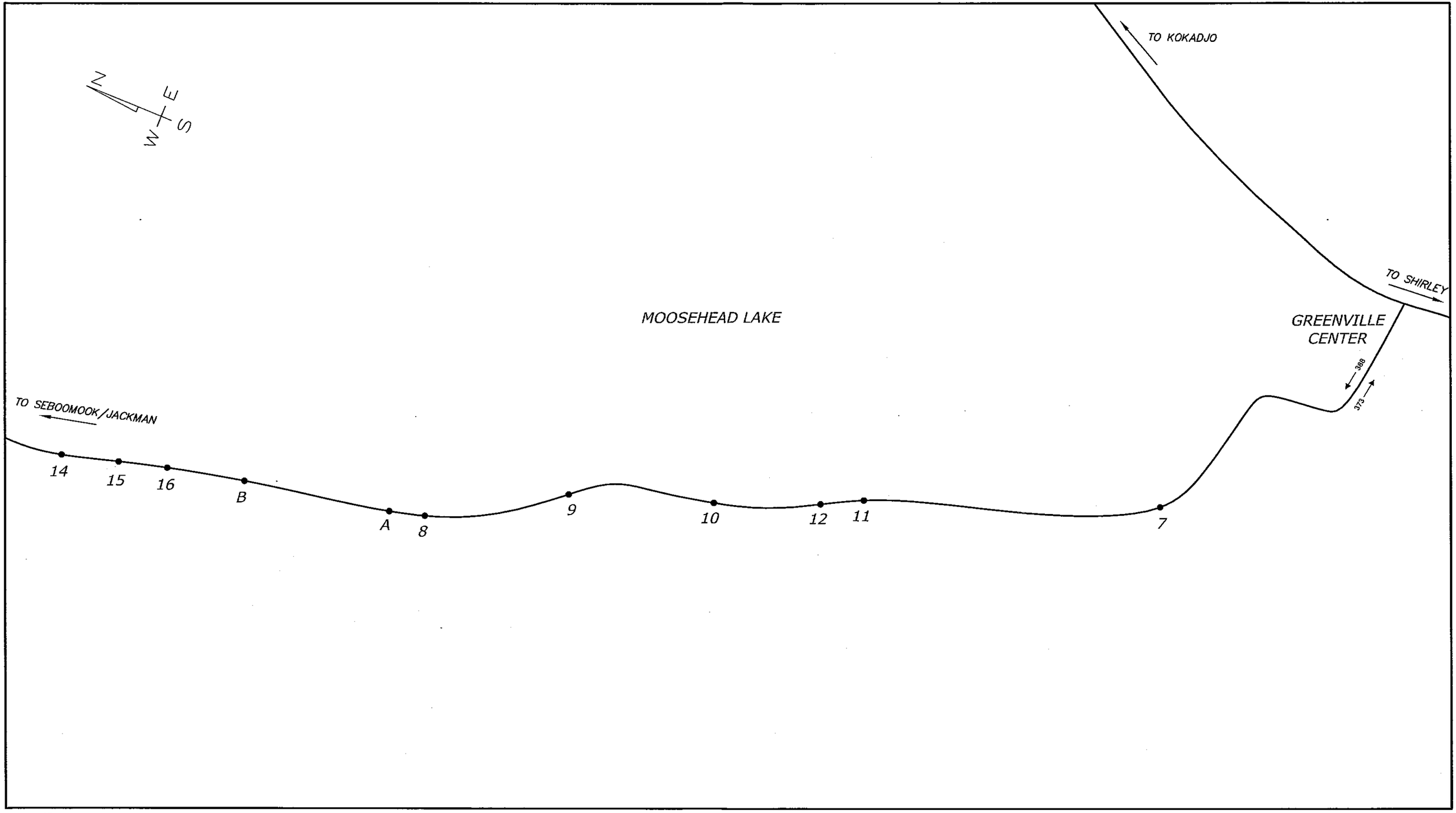
Predevelopment Volumes

Figure No. 5B



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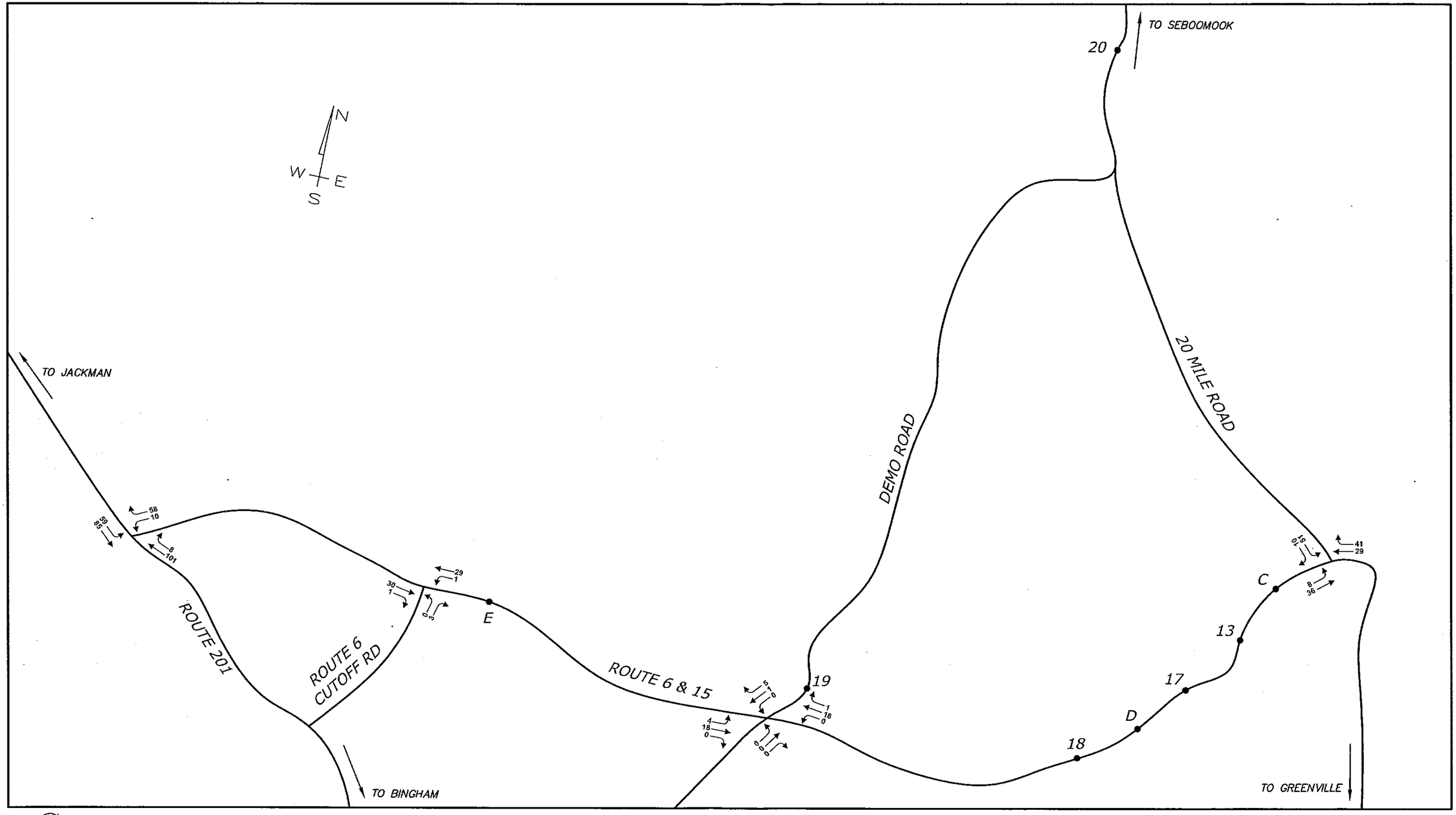

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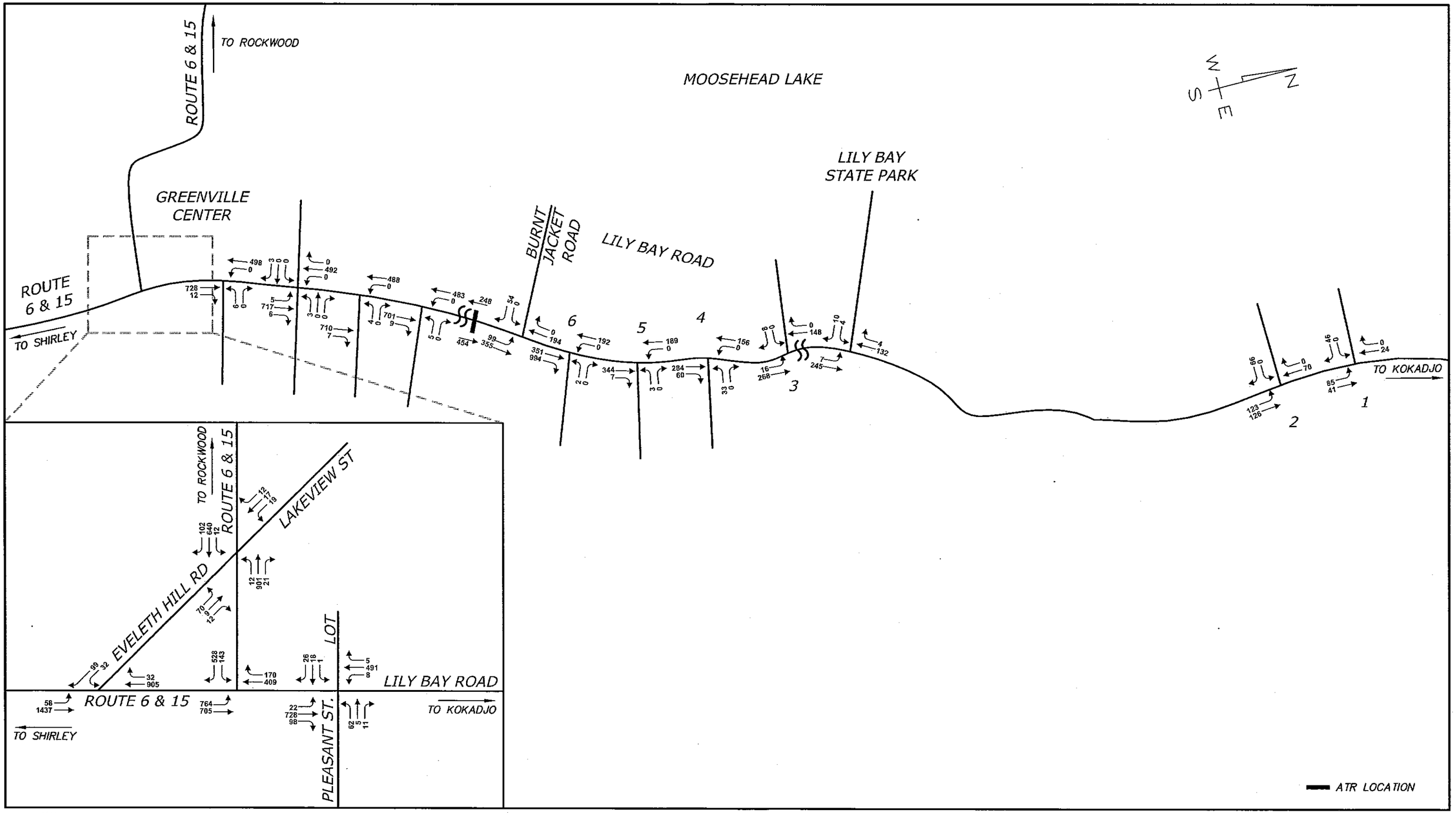
Postdevelopment Volumes

Figure No. 7A



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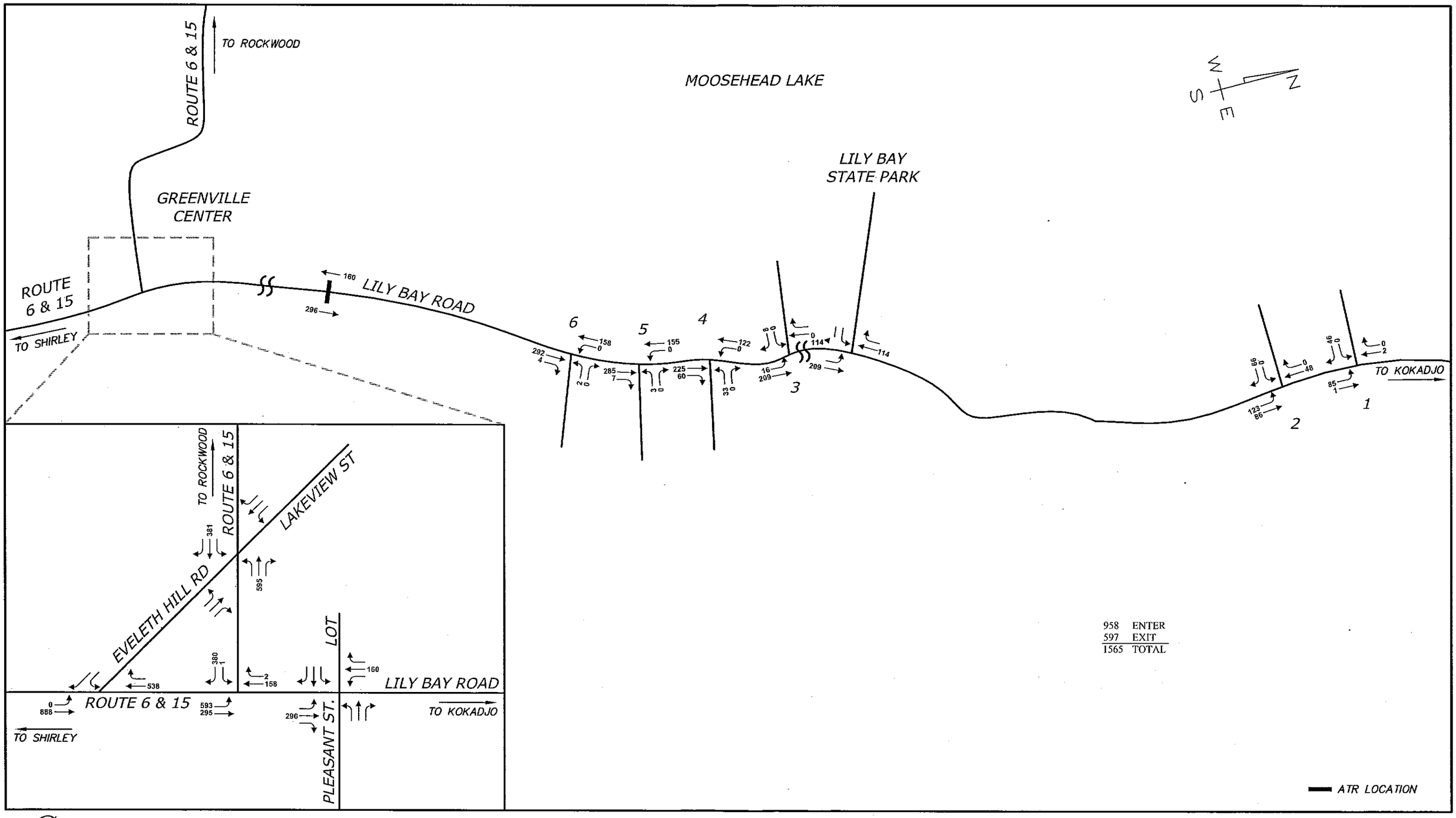
Trip Assignment

Figure No. 6A



958 ENTER
597 EXIT
1565 TOTAL

ATR LOCATION

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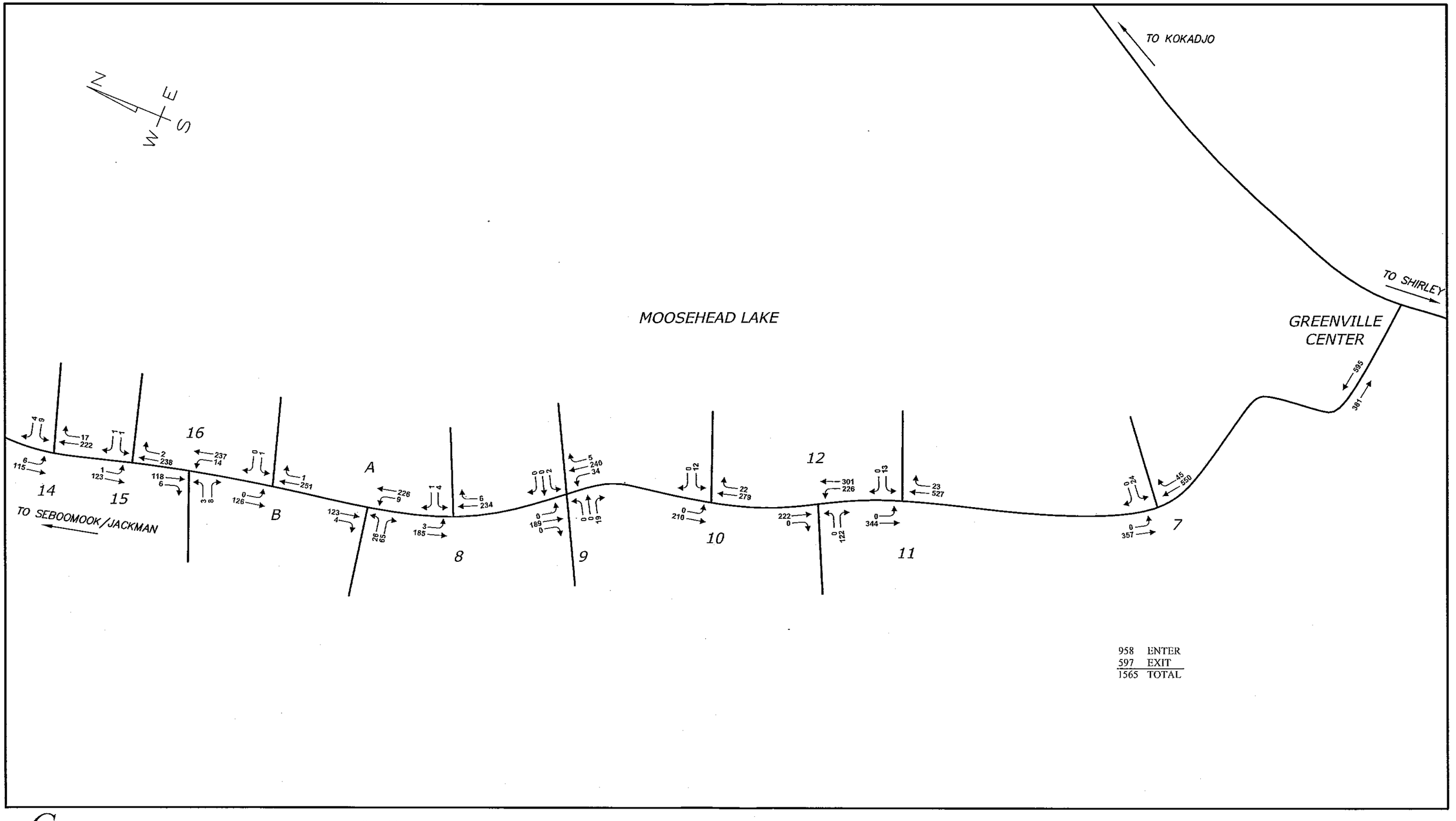
Trip Assignment

Figure No. 6B



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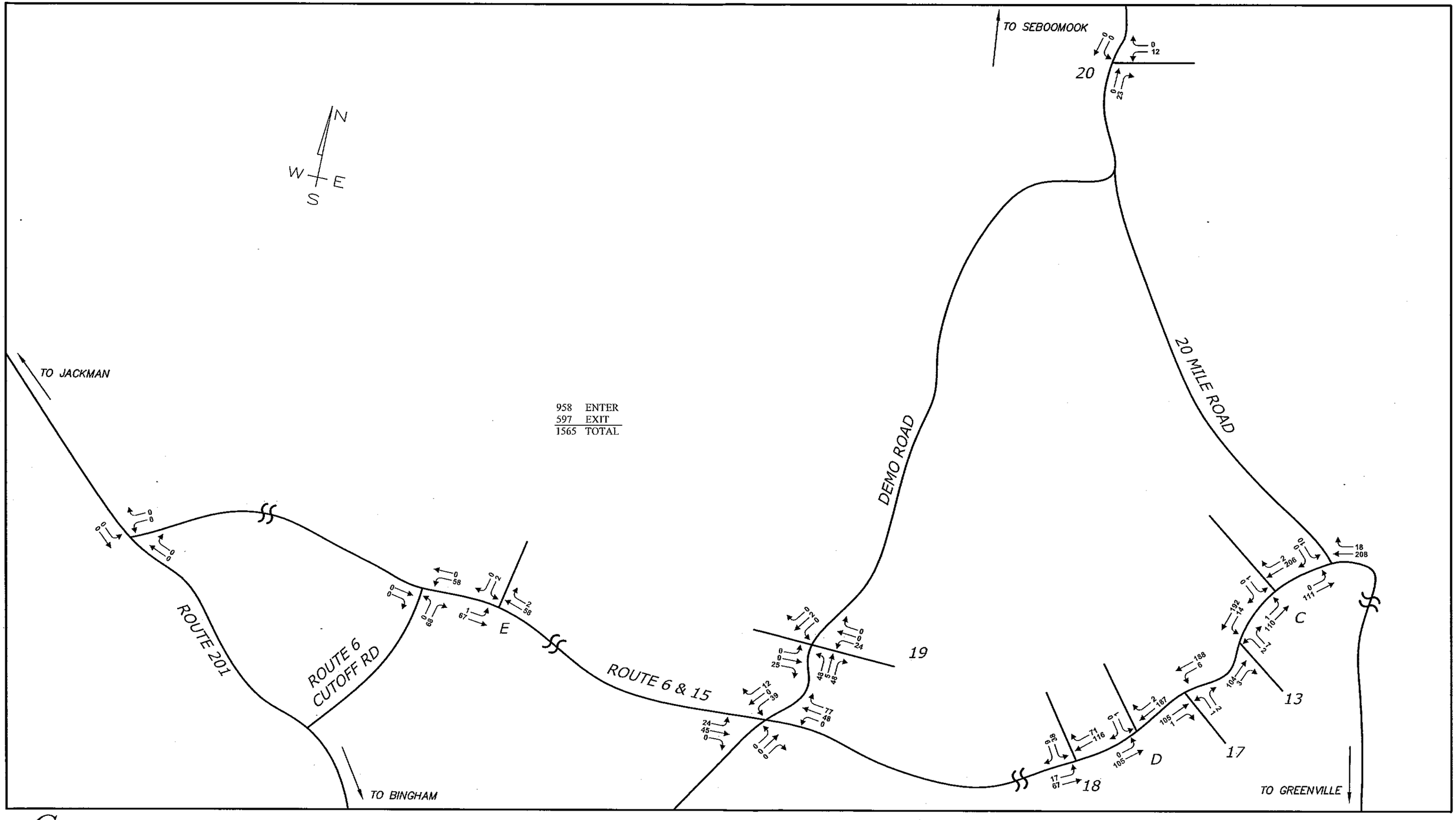
Trip Assignment

Figure No. 6C



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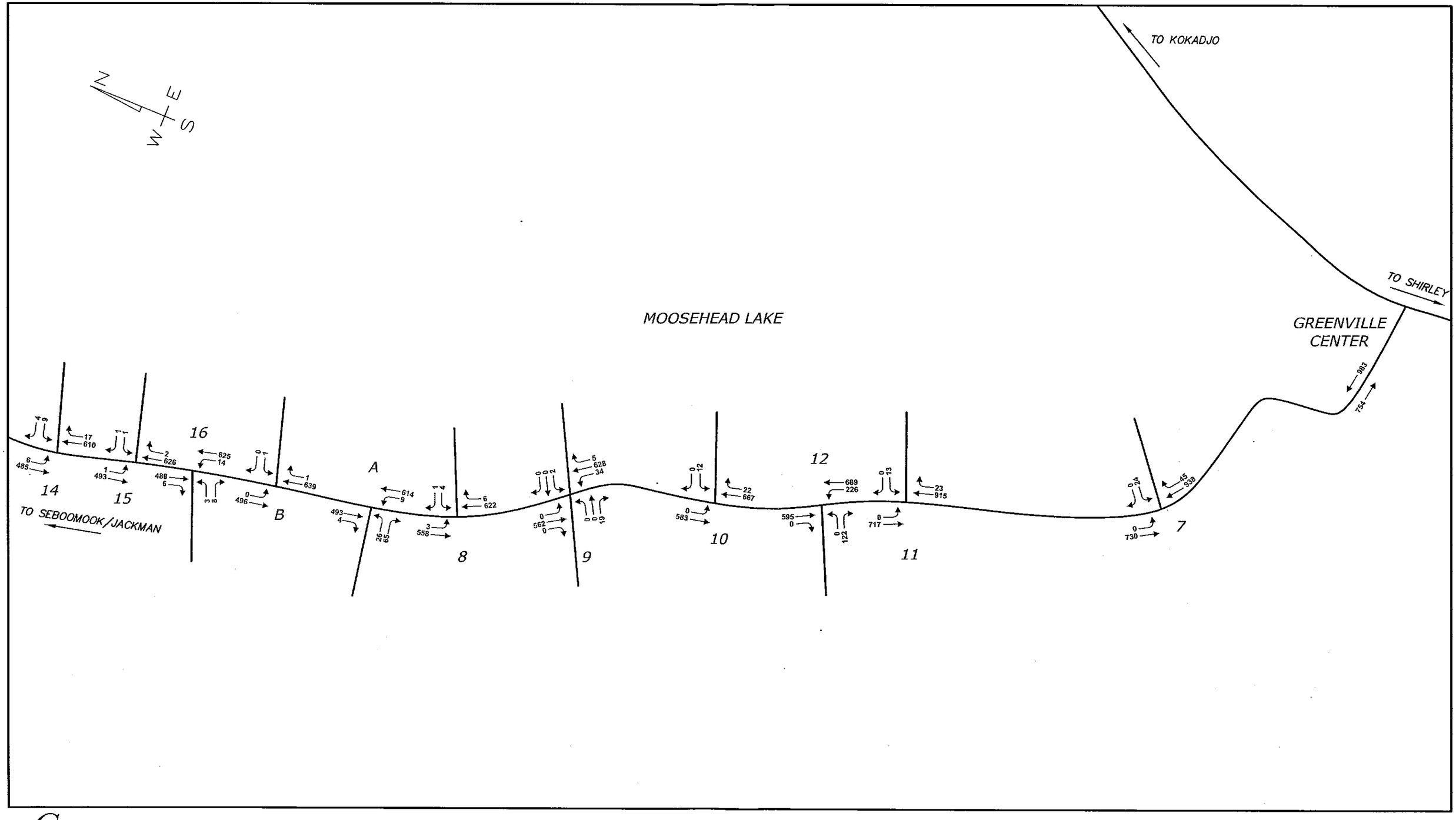

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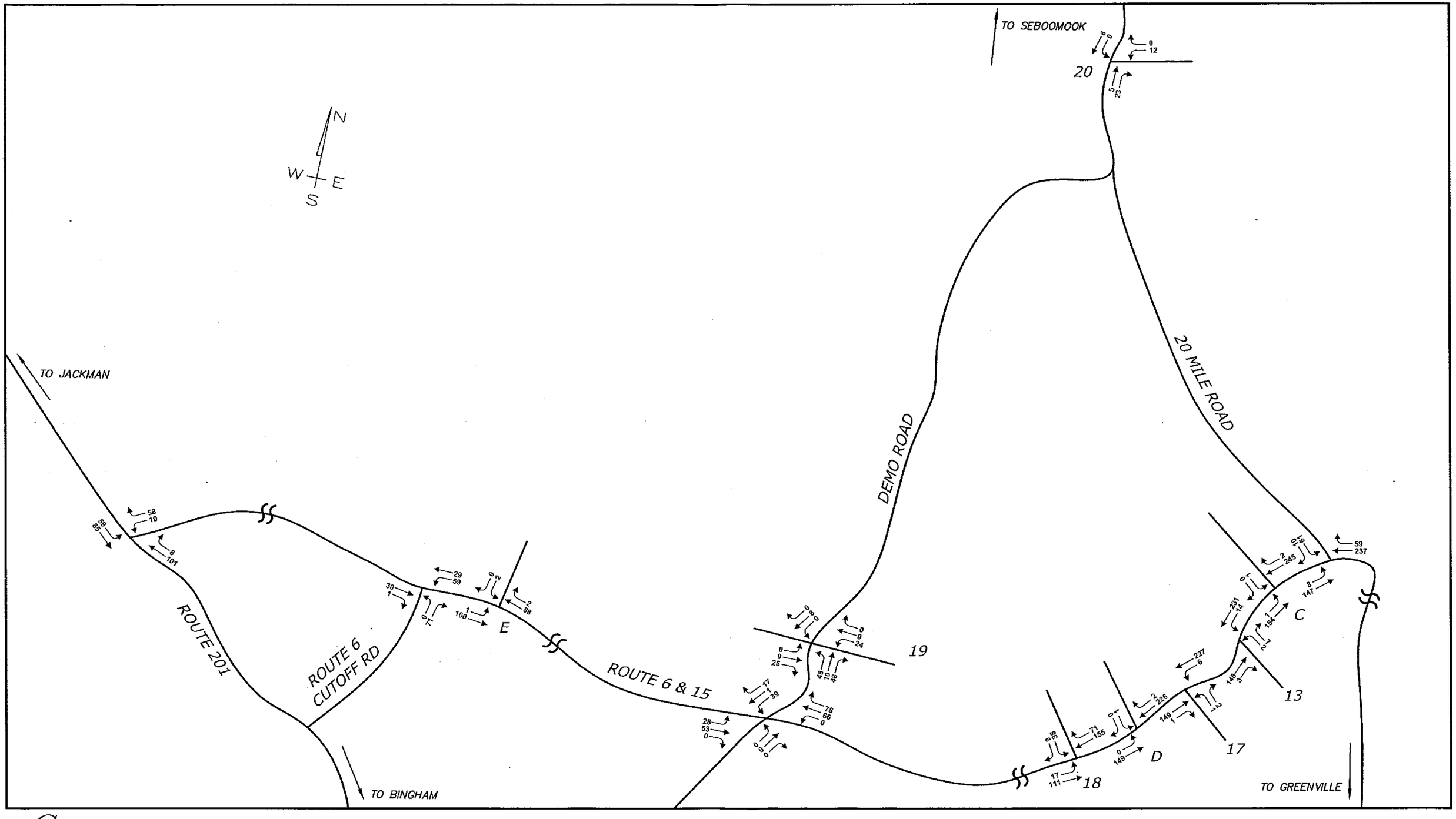

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Appendix B

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*P. Ostrowski*	Intersection	*Eveleth St. @ Route 15_3 Leg*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/9/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN1381.01 - 2017 Predevelopment*
East/West Street: *Eveleth Street*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*58*	*549*	*0*	*0*	*367*	*32*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*63*	*596*	*0*	*0*	*398*	*34*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*32*	*0*	*99*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*34*	*0*	*107*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*3*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*63*						*141*	
C (m) (vph)	*1138*						*430*	
v/c	*0.06*						*0.33*	
95% queue length	*0.18*						*1.41*	
Control Delay	*8.3*						*17.4*	
LOS	*A*						*C*	
Approach Delay	--	--					*17.4*	
Approach LOS	--	--					*C*	

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*P. Ostrowski*
Agency/Co.	*Gorrill-Palmer*
Date Performed	*3/9/2006*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Eveleth @ Route 15_4 Leg*
Jurisdiction	
Analysis Year	*2017*
Project ID	*JN1381.01 - 2017 Predevelopment*

East/West Street: *Route 15* | North/South Street: *Eveleth Street*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*12*	*259*	*102*	*12*	*306*	*21*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*13*	*281*	*110*	*13*	*332*	*22*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*70*	*9*	*12*	*19*	*17*	*12*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*76*	*9*	*13*	*20*	*18*	*13*
Percent Heavy Vehicles	*1*	*0*	*8*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (vph)	*13*	*13*		*98*			*51*	
C (m) (vph)	*1216*	*1179*		*332*			*367*	
v/c	*0.01*	*0.01*		*0.30*			*0.14*	
95% queue length	*0.03*	*0.03*		*1.21*			*0.48*	
Control Delay	*8.0*	*8.1*		*20.3*			*16.4*	
LOS	*A*	*A*		*C*			*C*	
Approach Delay	--	--		*20.3*			*16.4*	
Approach LOS	--	--		*C*			*C*	

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*P. Ostrowski*	Intersection	*Route 15 @ Lily Bay Road*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/9/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		
Project Description	*JN1381.01 - 2017 Predevelopment*		
East/West Street:	*Route 15*	North/South Street:	*Lily Bay Road*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*171*	*410*	*0*	*0*	*251*	*168*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*185*	*445*	*0*	*0*	*272*	*182*
Percent Heavy Vehicles	*2*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*142*	*0*	*148*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*154*	*0*	*160*
Percent Heavy Vehicles	*0*	*0*	*0*	*8*	*0*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*185*						*314*	
C (m) (vph)	*1107*						*276*	
v/c	*0.17*						*1.14*	
95% queue length	*0.60*						*13.48*	
Control Delay	*8.9*						*136.4*	
LOS	*A*						*F*	
Approach Delay	--	--				*136.4*		
Approach LOS	--	--				*F*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*P. Ostrowski*	Intersection	*Pleasant St. @ Lily Bay Rd.*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/9/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN1381.01 - 2017 Predevelopment*
East/West Street: *Pleasant Street*	North/South Street: *Lily Bay Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*22*	*432*	*98*	*8*	*331*	*5*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*23*	*469*	*106*	*8*	*359*	*5*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*62*	*5*	*11*	*1*	*18*	*26*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*67*	*5*	*11*	*1*	*19*	*28*
Percent Heavy Vehicles	*3*	*75*	*25*	*0*	*67*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (vph)	*23*	*8*		*83*			*48*	
C (m) (vph)	*1206*	*1008*		*216*			*319*	
v/c	*0.02*	*0.01*		*0.38*			*0.15*	
95% queue length	*0.06*	*0.02*		*1.70*			*0.52*	
Control Delay	*8.0*	*8.6*		*31.7*			*18.3*	
LOS	*A*	*A*		*D*			*C*	
Approach Delay	--	--	*31.7*			*18.3*		
Approach LOS	--	--	*D*			*C*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Lily Bay Road @ State Park*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Predevelopment*
East/West Street: *Lily Bay State Park*	North/South Street: *Lily Bay Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*7*	*36*	*0*	*0*	*18*	*4*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*7*	*39*	*0*	*0*	*19*	*4*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*4*	*0*	*10*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*4*	*0*	*10*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*7*						*14*	
C (m) (vph)	*1605*						*1021*	
v/c	*0.00*						*0.01*	
95% queue length	*0.01*						*0.04*	
Control Delay	*7.3*						*8.6*	
LOS	*A*						*A*	
Approach Delay	--	--					*8.6*	
Approach LOS	--	--					*A*	

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ 20 Mile Road*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description *JN 1381.01 - 2017 Predevelopment*

East/West Street: *Route 15* | North/South Street: *20 Mile Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*8*	*36*	*0*	*0*	*29*	*41*
Peak-hour factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate (veh/h)	*8*	*39*	*0*	*0*	*31*	*44*
Proportion of heavy vehicles, P_{HV}	*0*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*51*	*0*	*10*
Peak-hour factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate (veh/h)	*0*	*0*	*0*	*55*	*0*	*10*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*11*	*0*	*0*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
Volume, v (vph)	*8*						*65*	
Capacity, c_m (vph)	*1537*						*884*	
v/c ratio	*0.01*						*0.07*	
Queue length (95%)	*0.02*						*0.24*	
Control Delay (s/veh)	*7.4*						*9.4*	

LOS	A							A				
Approach delay (s/veh)	--	--						9.4				
Approach LOS	--	--						A				

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Demo Road*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description *JN 1381.01 - 2017 Predevelopment*

East/West Street: *Route 15* | North/South Street: *Demo Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*4*	*18*	*0*	*0*	*18*	*1*
Peak-hour factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate (veh/h)	*4*	*19*	*0*	*0*	*19*	*1*
Proportion of heavy vehicles, P_{HV}	*100*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*0*	*1*	*5*
Peak-hour factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate (veh/h)	*0*	*0*	*0*	*0*	*1*	*5*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*0*	*0*	*25*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*4*	*0*		*0*			*6*	
Capacity, c_m (vph)	*1139*	*1611*					*967*	
v/c ratio	*0.00*	*0.00*					*0.01*	
Queue length (95%)	*0.01*	*0.00*					*0.02*	
Control Delay (s/veh)	*8.2*	*7.2*					*8.7*	

LOS	A		A							A		
Approach delay (s/veh)	--		--							8.7		
Approach LOS	--		--							A		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*R. Barnes*
Agency/Co.	*Gorrill-Palmer*
Date Performed	*3/6/2006*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Route 15 @ Route 6 Cutoff*
Jurisdiction	
Analysis Year	*2017*

Project Description *JN 1381.01 - 2017 Predevelopment*

East/West Street: *Route 15* | North/South Street: *Route 6 Cutoff*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*30*	*1*	*1*	*29*	*0*
Peak-hour factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate (veh/h)	*0*	*32*	*1*	*1*	*31*	*0*
Proportion of heavy vehicles, P_{HV}	*0*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*3*	*0*	*0*	*0*
Peak-hour factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate (veh/h)	*0*	*0*	*3*	*0*	*0*	*0*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*50*	*0*	*0*	*0*
Percent grade (%)	*0*			*0*		
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
Volume, v (vph)		*1*		*3*				
Capacity, c_m (vph)		*1592*		*920*				
v/c ratio		*0.00*		*0.00*				
Queue length (95%)		*0.00*		*0.01*				

Control Delay (s/veh)		7.3		8.9				
LOS		A		A				
Approach delay (s/veh)	--	--	8.9					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Route 201*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		
Project Description	*JN 1381.01 - 2017 Predevelopment*		
East/West Street:	*Route 15*	North/South Street:	*Route 201*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*101*	*8*	*59*	*85*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*109*	*8*	*64*	*92*	*0*
Percent Heavy Vehicles	*0*	--	--	*12*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*10*	*0*	*58*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*10*	*0*	*63*	*0*	*0*	*0*
Percent Heavy Vehicles		*0*	*5*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*			*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*			*LR*	
v (vph)		*64*		*73*			*0*	
C (m) (vph)		*1412*						
v/c		*0.05*						
95% queue length		*0.14*						
Control Delay		*7.7*						
LOS		*A*						
Approach Delay	--	--						
Approach LOS	--	--						

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Lily Bay Road @ Beaver Cove*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Predevelopment*
East/West Street: *Beaver Cove*	North/South Street: *Lily Bay Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*99*	*59*	*0*	*0*	*34*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*107*	*64*	*0*	*0*	*36*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*0*	*54*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*0*	*58*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*107*						*58*	
C (m) (vph)	*1588*						*1042*	
v/c	*0.07*						*0.06*	
95% queue length	*0.22*						*0.18*	
Control Delay	*7.4*						*8.7*	
LOS	*A*						*A*	
Approach Delay	--	--					*8.7*	
Approach LOS	--	--					*A*	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1671	1568	1787	1881	1778	0
Flt Permitted	0.950		0.098			
Satd. Flow (perm)	1671	1568	184	1881	1778	0
Satd. Flow (RTOR)		193			21	
Volume (vph)	143	528	764	705	409	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	3%	1%	1%	2%	4%
Lane Group Flow (vph)	155	574	830	766	630	0
Turn Type		pm+ov	pm+pt			
Protected Phases	4	5	5	2	6	
Permitted Phases		4	2			
Total Split (s)	20.0	49.0	49.0	90.0	41.0	0.0
Act Effct Green (s)	13.8	62.9	86.1	86.1	37.0	
Actuated g/C Ratio	0.13	0.58	0.80	0.80	0.34	
v/c Ratio	0.72	0.58	1.02	0.51	1.01	
Control Delay	64.7	11.4	63.1	5.4	73.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	64.7	11.4	63.1	5.4	73.8	
LOS	E	B	E	A	E	
Approach Delay	22.8			35.4	73.8	
Approach LOS	C			D	E	
Queue Length 50th (ft)	104	150	~575	156	~462	
Queue Length 95th (ft)	#177	249	#824	227	#691	
Internal Link Dist (ft)	545			862	125	
Turn Bay Length (ft)						
Base Capacity (vph)	243	994	816	1501	624	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.64	0.58	1.02	0.51	1.01	

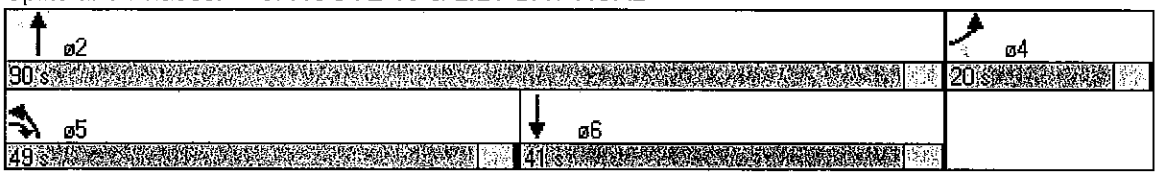
Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 107.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 40.5 Intersection LOS: D
Intersection Capacity Utilization 92.1% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: ROUTE 15 & LILY BAY ROAD

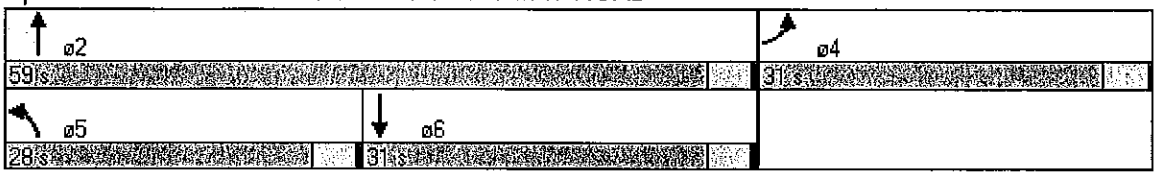


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1621	0	1787	1881	1757	0
Flt Permitted	0.985		0.129			
Satd. Flow (perm)	1621	0	243	1881	1757	0
Satd. Flow (RTOR)	135				34	
Volume (vph)	143	338	468	558	287	169
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	8%	3%	1%	1%	2%	4%
Lane Group Flow (vph)	522	0	509	607	496	0
Turn Type			pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases			2			
Total Split (s)	31.0	0.0	28.0	59.0	31.0	0.0
Act Effct Green (s)	24.2		51.6	51.6	24.7	
Actuated g/C Ratio	0.29		0.61	0.61	0.29	
v/c Ratio	0.93		0.89	0.53	0.92	
Control Delay	47.1		41.9	11.7	51.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	47.1		41.9	11.7	51.8	
LOS	D		D	B	D	
Approach Delay	47.1			25.5	51.8	
Approach LOS	D			C	D	
Queue Length 50th (ft)	218		224	181	253	
Queue Length 95th (ft)	#414		#417	267	#442	
Internal Link Dist (ft)	545			862	125	
Turn Bay Length (ft)						
Base Capacity (vph)	602		587	1188	579	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.87		0.87	0.51	0.86	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 84
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 36.9 Intersection LOS: D
Intersection Capacity Utilization 90.1% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: ROUTE 15 & LILY BAY ROAD



TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*P. Ostrowski*	Intersection	*Eveleth St. @ Route 15_3 Leg*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/9/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description *JN1381.01 - 2017 Postdevelopment*

East/West Street: *Eveleth Street*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*58*	*1437*	*0*	*0*	*905*	*32*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*63*	*1561*	*0*	*0*	*983*	*34*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*32*	*0*	*99*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*34*	*0*	*107*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*3*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*63*						*141*	
C (m) (vph)	*690*						*74*	
v/c	*0.09*						*1.91*	
95% queue length	*0.30*						*12.58*	
Control Delay	*10.7*						*545.8*	
LOS	*B*						*F*	
Approach Delay	--	--				*545.8*		
Approach LOS	--	--				*F*		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*P. Ostrowski*
Agency/Co.	*Gorrill-Palmer*
Date Performed	*03/06/2006*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Eveleth St. @ Route 15_4 Leg*
Jurisdiction	
Analysis Year	*2017*
Project ID	*JN1381.01 - 2017 Postdevelopment*

East/West Street: *Route 15* North/South Street: *Route 15*

Intersection Orientation: *East-West* Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*12*	*640*	*102*	*12*	*901*	*21*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*13*	*695*	*110*	*13*	*979*	*22*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*1*	

Minor Street	Northbound			Southbound		
Movement	*7*	8	9	10	11	12
	L	T	R	L	T	R
Volume	*70*	*9*	*12*	*19*	*17*	*12*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*76*	*9*	*13*	*20*	*18*	*13*
Percent Heavy Vehicles	*1*	*0*	*8*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (vph)	*13*	*13*		*98*			*51*	
C (m) (vph)	*656*	*828*		*39*			*59*	
v/c	*0.02*	*0.02*		*2.51*			*0.86*	
95% queue length	*0.06*	*0.05*		*10.78*			*3.90*	
Control Delay	*10.6*	*9.4*		*907.0*			*192.6*	
LOS	*B*	*A*		*F*			*F*	
Approach Delay	--	--	*907.0*			*192.6*		
Approach LOS	--	--	*F*			*F*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*P. Ostrowski*	Intersection	*Pleasant St. @ Lily Bay Road*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*03/06/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description *JN1381.01 - 2017 Postdevelopment*

East/West Street: *Pleasant Street* | North/South Street: *Lily Bay Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*22*	*728*	*98*	*8*	*491*	*5*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*23*	*791*	*106*	*8*	*533*	*5*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*1*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*62*	*5*	*11*	*1*	*18*	*26*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*67*	*5*	*11*	*1*	*19*	*28*
Percent Heavy Vehicles	*3*	*75*	*25*	*0*	*67*	*6*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (vph)	*23*	*8*		*83*			*48*	
C (m) (vph)	*1040*	*692*		*67*			*136*	
v/c	*0.02*	*0.01*		*1.24*			*0.35*	
95% queue length	*0.07*	*0.04*		*6.67*			*1.45*	
Control Delay	*8.5*	*10.3*		*293.7*			*45.3*	
LOS	*A*	*B*		*F*			*E*	
Approach Delay	--	--	*293.7*			*45.3*		
Approach LOS	--	--	*F*			*E*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Lily Bay Road @ State Park*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postevelopment*
East/West Street: *Lily Bay State Park*	North/South Street: *Lily Bay Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*7*	*244*	*0*	*0*	*138*	*4*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*7*	*265*	*0*	*0*	*149*	*4*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*4*	*0*	*10*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*4*	*0*	*10*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*7*						*14*	
C (m) (vph)	*1440*						*780*	
v/c	*0.00*						*0.02*	
95% queue length	*0.01*						*0.05*	
Control Delay	*7.5*						*9.7*	
LOS	*A*						*A*	
Approach Delay	--	--				*9.7*		
Approach LOS	--	--				*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ 20 Mile Road*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description *JN 1381.01 - 2017 Postdevelopment*

East/West Street: *Route 15* | North/South Street: *20 Mile Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*8*	*147*	*0*	*0*	*237*	*59*
Peak-hour factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate (veh/h)	*8*	*159*	*0*	*0*	*257*	*64*
Proportion of heavy vehicles, P_{HV}	*0*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*61*	*0*	*10*
Peak-hour factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate (veh/h)	*0*	*0*	*0*	*66*	*0*	*10*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*8*	*0*	*0*	
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
Volume, v (vph)	*8*						*76*	
Capacity, c_m (vph)	*1250*						*564*	
v/c ratio	*0.01*						*0.13*	
Queue length (95%)	*0.02*						*0.46*	
Control Delay (s/veh)	*7.9*						*12.4*	

LOS	A									B		
Approach delay (s/veh)	--	--								12.4		
Approach LOS	--	--								B		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*R. Barnes*
Agency/Co.	*Gorrill-Palmer*
Date Performed	*3/6/2006*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Route 15 @ Demo Road*
Jurisdiction	
Analysis Year	*2017*

Project Description *JN 1381.01 - 2017 Postdevelopment*

East/West Street: *Route 15* | North/South Street: *Demo Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*28*	*63*	*0*	*0*	*66*	*78*
Peak-hour factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate (veh/h)	*30*	*68*	*0*	*0*	*71*	*84*
Proportion of heavy vehicles, P_{HV}	*14*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*39*	*1*	*17*
Peak-hour factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate (veh/h)	*0*	*0*	*0*	*42*	*1*	*18*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*0*	*0*	*5*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*30*	*0*		*0*			*61*	
Capacity, c_m (vph)	*1355*	*1546*					*758*	
v/c ratio	*0.02*	*0.00*					*0.08*	
Queue length (95%)	*0.07*	*0.00*					*0.26*	
Control Delay (s/veh)	*7.7*	*7.3*					*10.2*	

LOS	A		A							B		
Approach delay (s/veh)	--		--							10.2		
Approach LOS	--		--							B		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*R. Barnes*
Agency/Co.	*Gorrill-Palmer*
Date Performed	*3/6/2006*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Route 15 @ Route 6 Cutoff*
Jurisdiction	
Analysis Year	*2017*

Project Description *JN 1381.01 - 2017 Postdevelopment*

East/West Street: *Route 15* | North/South Street: *Route 6 Cutoff*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*30*	*1*	*59*	*29*	*0*
Peak-hour factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate (veh/h)	*0*	*32*	*1*	*64*	*31*	*0*
Proportion of heavy vehicles, P_{HV}	*100*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*71*	*0*	*0*	*0*
Peak-hour factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate (veh/h)	*0*	*0*	*77*	*0*	*0*	*0*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*4*	*0*	*0*	*25*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
Volume, v (vph)		*64*		*77*				
Capacity, c_m (vph)		*1592*		*1036*				
v/c ratio		*0.04*		*0.07*				
Queue length (95%)		*0.13*		*0.24*				

Control Delay (s/veh)		7.4		8.8				
LOS		A		A				
Approach delay (s/veh)	--	--	8.8					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Route 201*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		
Project Description	*JN 1381.01 - 2017 Postdevelopment*		
East/West Street:	*Route 15*	North/South Street:	*Route 201*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*101*	*8*	*59*	*85*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*109*	*8*	*64*	*92*	*0*
Percent Heavy Vehicles	*0*	--	--	*12*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*10*	*0*	*58*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*10*	*0*	*63*	*0*	*0*	*0*
Percent Heavy Vehicles		*0*	*5*	*100*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*64*		*73*				
C (m) (vph)		*1412*						
v/c		*0.05*						
95% queue length		*0.14*						
Control Delay		*7.7*						
LOS		*A*						
Approach Delay	--	--						
Approach LOS	--	--						

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Lily Bay Road @ Beaver Cove*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description *JN 1381.01 - 2017 Postdevelopment*

East/West Street: *Beaver Cove*	North/South Street: *Lily Bay Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*99*	*355*	*0*	*0*	*194*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*107*	*385*	*0*	*0*	*210*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*0*	*54*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*0*	*58*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*107*						*58*	
C (m) (vph)	*1373*						*835*	
v/c	*0.08*						*0.07*	
95% queue length	*0.25*						*0.22*	
Control Delay	*7.8*						*9.6*	
LOS	*A*						*A*	
Approach Delay	--	--				*9.6*		
Approach LOS	--	--				*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Lily Bay Road @ Intersection 1*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 1*	North/South Street: *Lily Bay Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*85*	*41*	*0*	*0*	*24*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*92*	*44*	*0*	*0*	*26*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*0*	*46*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*0*	*49*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*92*						*49*	
C (m) (vph)	*1601*						*1056*	
v/c	*0.06*						*0.05*	
95% queue length	*0.18*						*0.15*	
Control Delay	*7.4*						*8.6*	
LOS	*A*						*A*	
Approach Delay	--	--					*8.6*	
Approach LOS	--	--					*A*	

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Lily Bay Road @ Intersection 2*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 2*	North/South Street: *Lily Bay Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*123*	*126*	*0*	*0*	*70*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*133*	*136*	*0*	*0*	*76*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*0*	*66*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*0*	*71*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*133*						*71*	
C (m) (vph)	*1536*						*991*	
v/c	*0.09*						*0.07*	
95% queue length	*0.28*						*0.23*	
Control Delay	*7.6*						*8.9*	
LOS	*A*						*A*	
Approach Delay	--	--				*8.9*		
Approach LOS	--	--				*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Lily Bay Road @ Intersection 3*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 3*	North/South Street: *Lily Bay Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*16*	*268*	*0*	*0*	*148*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*17*	*291*	*0*	*0*	*160*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*0*	*8*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*0*	*8*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*17*						*8*	
C (m) (vph)	*1432*						*890*	
v/c	*0.01*						*0.01*	
95% queue length	*0.04*						*0.03*	
Control Delay	*7.5*						*9.1*	
LOS	*A*						*A*	
Approach Delay	--	--					*9.1*	
Approach LOS	--	--					*A*	

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Lily Bay Road @ Intersection 4*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 4*	North/South Street: *Lily Bay Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*284*	*60*	*0*	*156*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*308*	*65*	*0*	*169*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*33*	*0*	*0*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*35*	*0*	*0*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*0*		*35*				
C (m) (vph)		*1197*		*528*				
v/c		*0.00*		*0.07*				
95% queue length		*0.00*		*0.21*				
Control Delay		*8.0*		*12.3*				
LOS		*A*		*B*				
Approach Delay	--	--	*12.3*					
Approach LOS	--	--	*B*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Lily Bay Road @ Intersection 5*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description *JN 1381.01 - 2017 Postdevelopment*

East/West Street: *Intersection 5* | North/South Street: *Lily Bay Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*344*	*7*	*0*	*189*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*373*	*7*	*0*	*205*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*3*	*0*	*0*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*3*	*0*	*0*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*0*		*3*				
C (m) (vph)		*1190*		*479*				
v/c		*0.00*		*0.01*				
95% queue length		*0.00*		*0.02*				
Control Delay		*8.0*		*12.6*				
LOS		*A*		*B*				
Approach Delay	--	--	*12.6*					
Approach LOS	--	--	*B*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Lily Bay Road @ Intersection 6*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 6*	North/South Street: *Lily Bay Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*351*	*4*	*0*	*192*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*381*	*4*	*0*	*208*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*2*	*0*	*0*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*2*	*0*	*0*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*0*		*2*				
C (m) (vph)		*1185*		*473*				
v/c		*0.00*		*0.00*				
95% queue length		*0.00*		*0.01*				
Control Delay		*8.0*		*12.6*				
LOS		*A*		*B*				
Approach Delay	--	--	*12.6*					
Approach LOS	--	--	*B*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Intersection 7*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		
Project Description	*JN 1381.01 - 2017 Postdevelopment*		
East/West Street:	*Intersection 7*	North/South Street:	*Route 15*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*938*	*45*	*0*	*730*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*1019*	*48*	*0*	*793*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*24*	*0*	*0*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*26*	*0*	*0*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*0*		*26*				
C (m) (vph)		*661*		*84*				
v/c		*0.00*		*0.31*				
95% queue length		*0.00*		*1.16*				
Control Delay		*10.4*		*66.0*				
LOS		*B*		*F*				
Approach Delay	--	--	*66.0*					
Approach LOS	--	--	*F*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Intersection 8*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		
Project Description	*JN 1381.01 - 2017 Postdevelopment*		
East/West Street:	*Intersection 8*	North/South Street:	*Route 15*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*622*	*6*	*3*	*558*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*676*	*6*	*3*	*606*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*4*	*0*	*1*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*4*	*0*	*1*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*3*		*5*				
C (m) (vph)		*920*		*206*				
v/c		*0.00*		*0.02*				
95% queue length		*0.01*		*0.07*				
Control Delay		*8.9*		*22.9*				
LOS		*A*		*C*				
Approach Delay	--	--	*22.9*					
Approach LOS	--	--	*C*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Intersection 9*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		
Project Description	*JN 1381.01 - 2017 Postdevelopment*		
East/West Street:	*Intersection 9*	North/South Street:	*Route 15*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*34*	*628*	*5*	*0*	*562*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*36*	*682*	*5*	*0*	*610*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*2*	*0*	*0*	*0*	*0*	*19*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*2*	*0*	*0*	*0*	*0*	*20*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (vph)	*36*	*0*		*2*			*20*	
C (m) (vph)	*979*	*916*		*113*			*498*	
v/c	*0.04*	*0.00*		*0.02*			*0.04*	
95% queue length	*0.11*	*0.00*		*0.05*			*0.13*	
Control Delay	*8.8*	*8.9*		*37.4*			*12.5*	
LOS	*A*	*A*		*E*			*B*	
Approach Delay	--	--	*37.4*			*12.5*		
Approach LOS	--	--	*E*			*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Intersection 10*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 10*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*667*	*22*	*0*	*583*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*724*	*23*	*0*	*633*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*12*	*0*	*0*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*13*	*0*	*0*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*0*		*13*				
C (m) (vph)		*870*		*163*				
v/c		*0.00*		*0.08*				
95% queue length		*0.00*		*0.26*				
Control Delay		*9.1*		*29.0*				
LOS		*A*		*D*				
Approach Delay	--	--	*29.0*					
Approach LOS	--	--	*D*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Intersection 11*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 11*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*915*	*23*	*0*	*717*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*994*	*24*	*0*	*779*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*13*	*0*	*0*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*14*	*0*	*0*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*0*		*14*				
C (m) (vph)		*689*		*91*				
v/c		*0.00*		*0.15*				
95% queue length		*0.00*		*0.52*				
Control Delay		*10.2*		*51.6*				
LOS		*B*		*F*				
Approach Delay	--	--	*51.6*					
Approach LOS	--	--	*F*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Intersection 12*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 12*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*226*	*689*	*0*	*0*	*595*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*245*	*748*	*0*	*0*	*646*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*0*	*1*	*0*
Configuration	*L*	*T*				*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*0*	*122*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*0*	*132*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*						*LR*	
v (vph)	*245*						*132*	
C (m) (vph)	*949*						*475*	
v/c	*0.26*						*0.28*	
95% queue length	*1.03*						*1.13*	
Control Delay	*10.1*						*15.5*	
LOS	*B*						*C*	
Approach Delay	--	--				*15.5*		
Approach LOS	--	--				*C*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Intersection 13*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 13*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*148*	*3*	*13*	*231*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*160*	*3*	*14*	*251*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*2*	*0*	*7*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*2*	*0*	*7*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*14*		*9*				
C (m) (vph)		*1428*		*790*				
v/c		*0.01*		*0.01*				
95% queue length		*0.03*		*0.03*				
Control Delay		*7.5*		*9.6*				
LOS		*A*		*A*				
Approach Delay	--	--	*9.6*					
Approach LOS	--	--	*A*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Intersection 14*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 14*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*610*	*17*	*6*	*485*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*663*	*18*	*6*	*527*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*9*	*0*	*4*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*9*	*0*	*4*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*6*		*13*				
C (m) (vph)		*921*		*244*				
v/c		*0.01*		*0.05*				
95% queue length		*0.02*		*0.17*				
Control Delay		*8.9*		*20.6*				
LOS		*A*		*C*				
Approach Delay	--	--	*20.6*					
Approach LOS	--	--	*C*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Intersection 15*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 15*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*626*	*2*	*1*	*493*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*680*	*2*	*1*	*535*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*1*	*0*	*1*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*1*	*0*	*1*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*1*		*2*				
C (m) (vph)		*920*		*279*				
v/c		*0.00*		*0.01*				
95% queue length		*0.00*		*0.02*				
Control Delay		*8.9*		*18.0*				
LOS		*A*		*C*				
Approach Delay	--	--	*18.0*					
Approach LOS	--	--	*C*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Intersection 16*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 16*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*14*	*625*	*0*	*0*	*488*	*6*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*15*	*679*	*0*	*0*	*530*	*6*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*3*	*0*	*8*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*3*	*0*	*8*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*15*						*11*	
C (m) (vph)	*1042*						*365*	
v/c	*0.01*						*0.03*	
95% queue length	*0.04*						*0.09*	
Control Delay	*8.5*						*15.2*	
LOS	*A*						*C*	
Approach Delay	--	--					*15.2*	
Approach LOS	--	--					*C*	

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Intersection 17*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 17*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*149*	*1*	*6*	*227*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*161*	*1*	*6*	*246*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*1*	*0*	*2*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*1*	*0*	*2*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*6*		*3*				
C (m) (vph)		*1429*		*761*				
v/c		*0.00*		*0.00*				
95% queue length		*0.01*		*0.01*				
Control Delay		*7.5*		*9.7*				
LOS		*A*		*A*				
Approach Delay	--	--	*9.7*					
Approach LOS	--	--	*A*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Intersection 18*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 18*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*17*	*111*	*0*	*0*	*155*	*71*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*18*	*120*	*0*	*0*	*168*	*77*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*38*	*0*	*9*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*41*	*0*	*9*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*18*						*50*	
C (m) (vph)	*1333*						*661*	
v/c	*0.01*						*0.08*	
95% queue length	*0.04*						*0.24*	
Control Delay	*7.7*						*10.9*	
LOS	*A*						*B*	
Approach Delay	--	--				*10.9*		
Approach LOS	--	--				*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Demo Road @ Intersection 19*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 19*	North/South Street: *Demo Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*48*	*10*	*48*	*0*	*8*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*52*	*10*	*52*	*0*	*8*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*24*	*0*	*0*	*0*	*0*	*25*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*26*	*0*	*0*	*0*	*0*	*27*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (vph)	*52*	*0*		*26*			*27*	
C (m) (vph)	*1625*	*1554*		*768*			*1080*	
v/c	*0.03*	*0.00*		*0.03*			*0.03*	
95% queue length	*0.10*	*0.00*		*0.11*			*0.08*	
Control Delay	*7.3*	*7.3*		*9.9*			*8.4*	
LOS	*A*	*A*		*A*			*A*	
Approach Delay	--	--	*9.9*			*8.4*		
Approach LOS	--	--	*A*			*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Demo Road @ Intersection 20*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Intersection 20*	North/South Street: *Demo Road*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*5*	*23*	*0*	*6*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*5*	*24*	*0*	*6*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*12*	*0*	*0*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*13*	*0*	*0*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*0*		*13*				
C (m) (vph)		*1597*		*998*				
v/c		*0.00*		*0.01*				
95% queue length		*0.00*		*0.04*				
Control Delay		*7.3*		*8.7*				
LOS		*A*		*A*				
Approach Delay	--	--	*8.7*					
Approach LOS	--	--	*A*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Sawmill*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		
Project Description	*JN 1381.01 - 2017 Postdevelopment*		
East/West Street:	*Sawmill*	North/South Street:	*Route 15*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*9*	*614*	*0*	*0*	*493*	*4*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*9*	*667*	*0*	*0*	*535*	*4*
Percent Heavy Vehicles	*11*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*26*	*0*	*65*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*28*	*0*	*70*
Percent Heavy Vehicles	*0*	*0*	*0*	*12*	*0*	*12*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*9*						*98*	
C (m) (vph)	*985*						*346*	
v/c	*0.01*						*0.28*	
95% queue length	*0.03*						*1.14*	
Control Delay	*8.7*						*19.5*	
LOS	*A*						*C*	
Approach Delay	--	--				*19.5*		
Approach LOS	--	--				*C*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Sandbar Tract*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		
Project Description	*JN 1381.01 - 2017 Postdevelopment*		
East/West Street:	*Sandbar Tract*	North/South Street:	*Route 15*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*639*	*1*	*0*	*496*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*694*	*1*	*0*	*539*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*1*	*0*	*0*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*1*	*0*	*0*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*0*		*1*				
C (m) (vph)		*910*		*197*				
v/c		*0.00*		*0.01*				
95% queue length		*0.00*		*0.02*				
Control Delay		*9.0*		*23.4*				
LOS		*A*		*C*				
Approach Delay	--	--	*23.4*					
Approach LOS	--	--	*C*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Point-Moose River*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *Point-Moose River*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*1*	*154*	*0*	*0*	*245*	*2*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*1*	*167*	*0*	*0*	*266*	*2*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*1*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*1*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*1*						*1*	
C (m) (vph)	*1307*						*581*	
v/c	*0.00*						*0.00*	
95% queue length	*0.00*						*0.01*	
Control Delay	*7.8*						*11.2*	
LOS	*A*						*B*	
Approach Delay	--	--				*11.2*		
Approach LOS	--	--				*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ Brassua Lake*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		
Project Description	*JN 1381.01 - 2017 Postdevelopment*		
East/West Street:	*Southeast Shore Brassua Lake*	North/South Street:	*Route 15*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*149*	*0*	*0*	*226*	*2*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*161*	*0*	*0*	*245*	*2*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*1*	*0*	*0*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*1*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*0*						*1*	
C (m) (vph)	*1331*						*604*	
v/c	*0.00*						*0.00*	
95% queue length	*0.00*						*0.00*	
Control Delay	*7.7*						*11.0*	
LOS	*A*						*B*	
Approach Delay	--	--					*11.0*	
Approach LOS	--	--					*B*	

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*R. Barnes*	Intersection	*Route 15 @ S. Shore Long Pond*
Agency/Co.	*Gorrill-Palmer*	Jurisdiction	
Date Performed	*3/6/2006*	Analysis Year	*2017*
Analysis Time Period	*PM Peak Hour*		

Project Description	*JN 1381.01 - 2017 Postdevelopment*
East/West Street: *South Shore Long Pond*	North/South Street: *Route 15*
Intersection Orientation: *North-South*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*1*	*100*	*0*	*0*	*88*	*2*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*1*	*108*	*0*	*0*	*95*	*2*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*0*	*2*
Peak-Hour Factor, PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*0*	*2*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

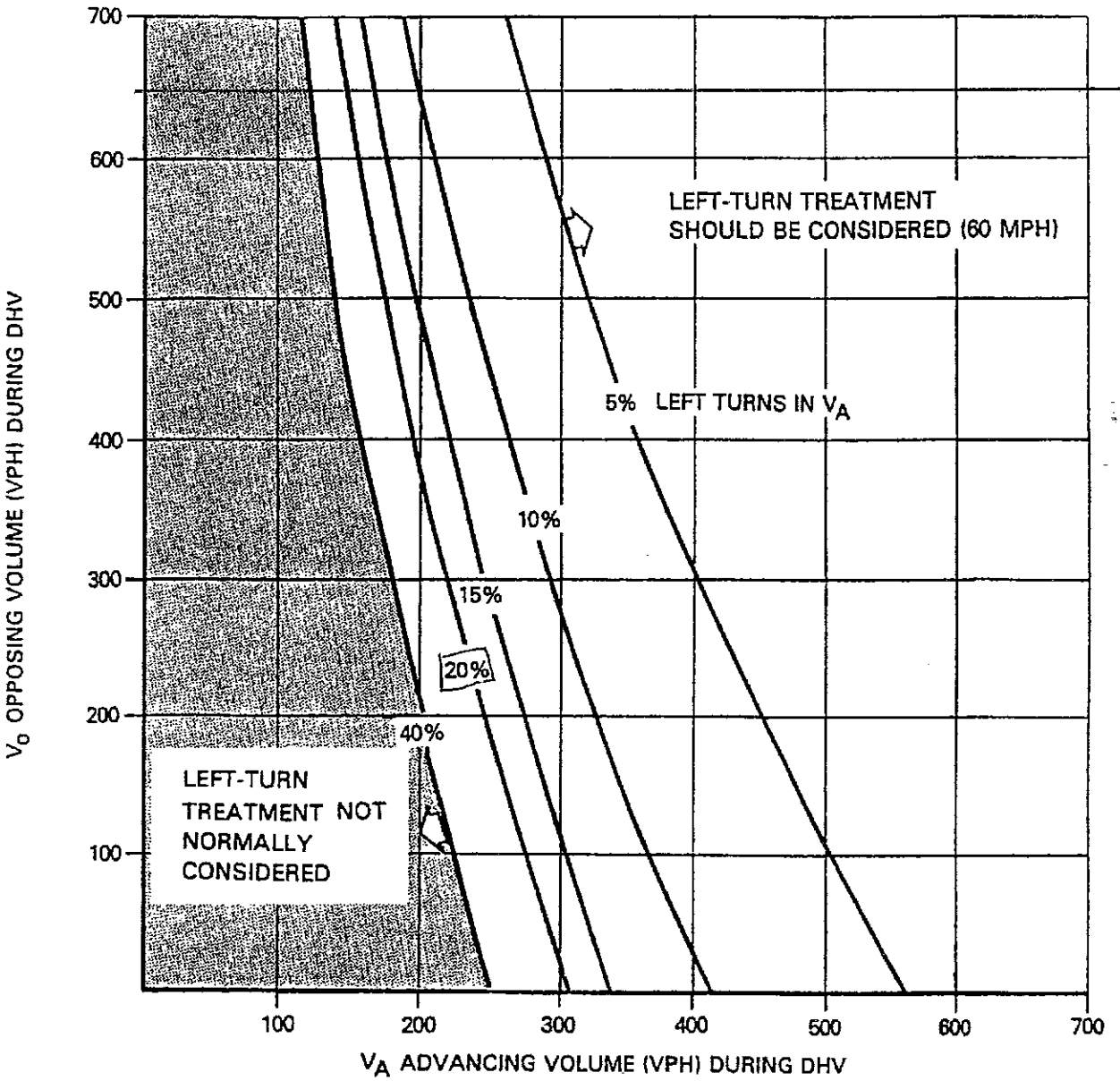
Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (vph)	*1*						*2*	
C (m) (vph)	*1509*						*966*	
v/c	*0.00*						*0.00*	
95% queue length	*0.00*						*0.01*	
Control Delay	*7.4*						*8.7*	
LOS	*A*						*A*	
Approach Delay	--	--					*8.7*	
Approach LOS	--	--					*A*	

Appendix C

MaineDOT Historic AADT Traffic Volumes

Town	Location	1982	1984	1999	2004	% Change	Annual % Increase
Beaver Cove	LILY BAY RD @ GREENVILLE TL		665		1060	59%	2.4%
Beaver Cove	LILY BAY RD NE/O IR 2103		415		630	52%	2.1%
Beaver Cove	LILY BAY RD S/O IR 2103		460		880	91%	3.3%
Big Moose TWP	SR 6 @ BR #3824		810		1130	40%	1.7%
Frenctown TWP	IR 306 @ BR #0917		275		430	56%	2.3%
Greenville	LILY BAY RD N/O PLEASANT ST.		3980		4320	9%	0.4%
Greenville	LILY BAY RD N/O SCAMMAN RD		1200		1710	43%	1.8%
Greenville	LILY BAY RD NE/O SR 6/15 (WEST ST)		4875		5690	17%	0.8%
Greenville	LILY BAY RD S/O SCAMMAN RD		1490		2020	36%	1.5%
Greenville	LILY BAY RD S/O VILLAGE ST		2895		3160	9%	0.4%
Greenville	SR 6/15 (MOOSEHEAD LAKE RD) S/O WASHINGTON ST		3575				
Greenville	SR 6/15 (MOOSEHEAD LAKE RD) @ RR OVERPASS		2775		4940	78%	2.9%
Greenville	SR 6/15 (MOOSEHEAD LAKE RD) S/O SR 6/15		5070		6150	21%	1.0%
Greenville	SR 6/15 (WEST ST) E/O SPRUCE ST		4915		5070	3%	0.2%
Greenville	SR 6/15 (WEST ST) SE/O BIRCH ST		4235		4340	2%	0.1%
Greenville	SR 6/15 (WEST ST) W/O CRAFT ST		4860	6070		25%	1.5%
Greenville	SR 6/15 (WEST ST) W/O SPRUCE ST		5005		5150	3%	0.1%
Greenville	SR 6/15 W/O SR 6/15 (MOOSEHEAD LK RD)		5280		5810	10%	0.5%
Jackman	SR 6/15 @ LONG POND TWP TL	529			810	53%	2.0%
Jackman	SR 6/15 E/O US 201	865			1180	36%	1.4%
Jackman	SR 6/US 201 N/O IR 990 (AIRPORT RD)						
Jackman	SR 6/US 201 NW/O IR 970 (COBURN AVE)	3188			4130	30%	1.2%
Jackman	SR 6/US 201 NW/O SR 6/15	2349			3200	36%	1.4%
Jackman	SR 6/US 201 S/O IR 710	2291			3490	52%	1.9%
Moose River	SR 6/US 201 N/O IR 704 PLEASANT ST			2210	2210	0%	0.0%
Moose River	SR 6/US 201 S/O IR 704 PLEASANT ST	1591			2510	58%	2.1%
Moosehead Jct.	SR 6/15 W/O IR 754		1045	1390		33%	1.9%
Rockwood Strip T1 R1 Nbkp	SR 6/15 E/O OR 759	1121			1300	16%	0.7%
Rockwood Strip T1 R1 Nbkp	SR 6/15 W/O IR 759	679			980	44%	1.7%
Shirley	SR 6/15 N/O IR 488		1550		2620	69%	2.7%
Shirley	SR 6/15 N/O IR 489		1190		2500	110%	3.8%
Shirley	SR 6/15 SE/O IR 493 (BLANCHARD RD)		1510		2550	69%	2.7%
						AVERAGE ANNUAL INCREASE =	**1.5%**



Instructions:

1. The family of curves represent the percent of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.

2. Read V_A and V_O into the chart and locate the intersection of the two volumes.

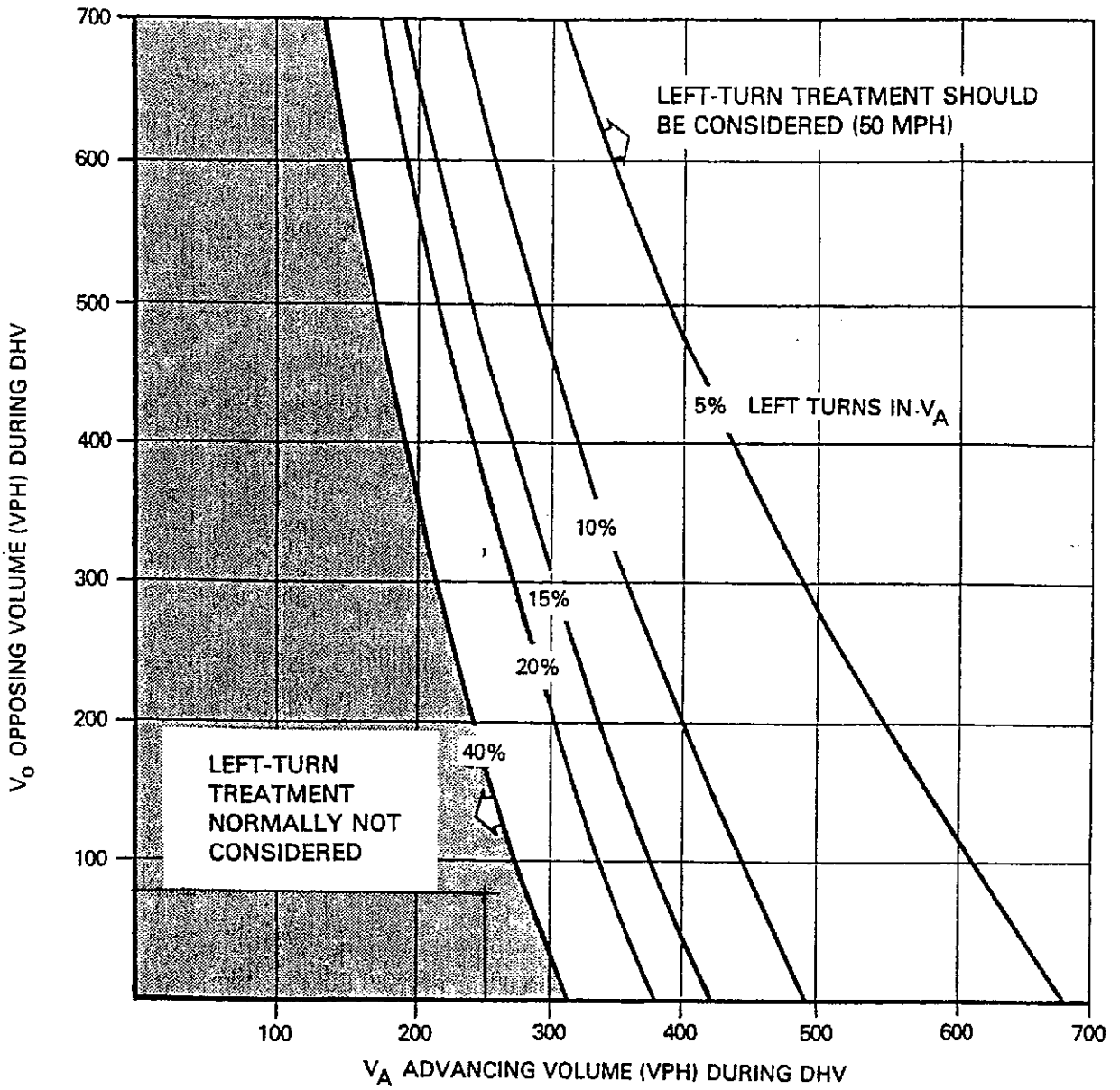
3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn lane is not warranted based on traffic volumes.

INTERSECTION 12
V_A - 856
V_O - 646
% LTS - 26%

VOLUME WARRANTS FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON 2-LANE HIGHWAYS (60 mph)

Figure 8-17

WARRANT MET



Instructions:

1. The family of curves represent the percent of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.

2. Read V_A and V_O into the chart and locate the intersection of the two volumes.

3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn lane is not warranted based on traffic volumes.

VOLUME WARRANTS FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON 2-LANE HIGHWAYS (50 mph)

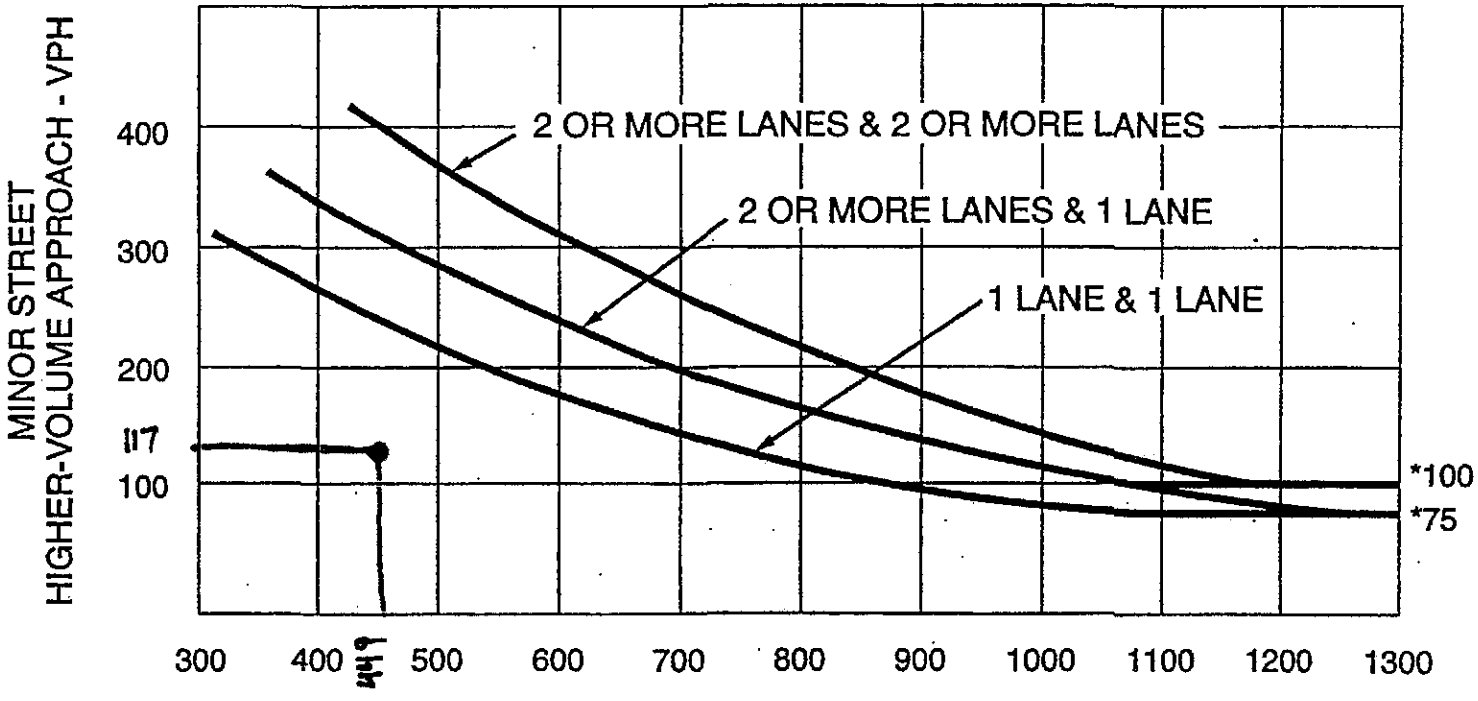
Figure 8-18

INTERSECTION 2
V_A - 248
V_O - 76
% LEFTS - 50%
WARRANT NOT MET

ROUTE 15 @ LILY BAY ROAD
EXISTING VOLUMES

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

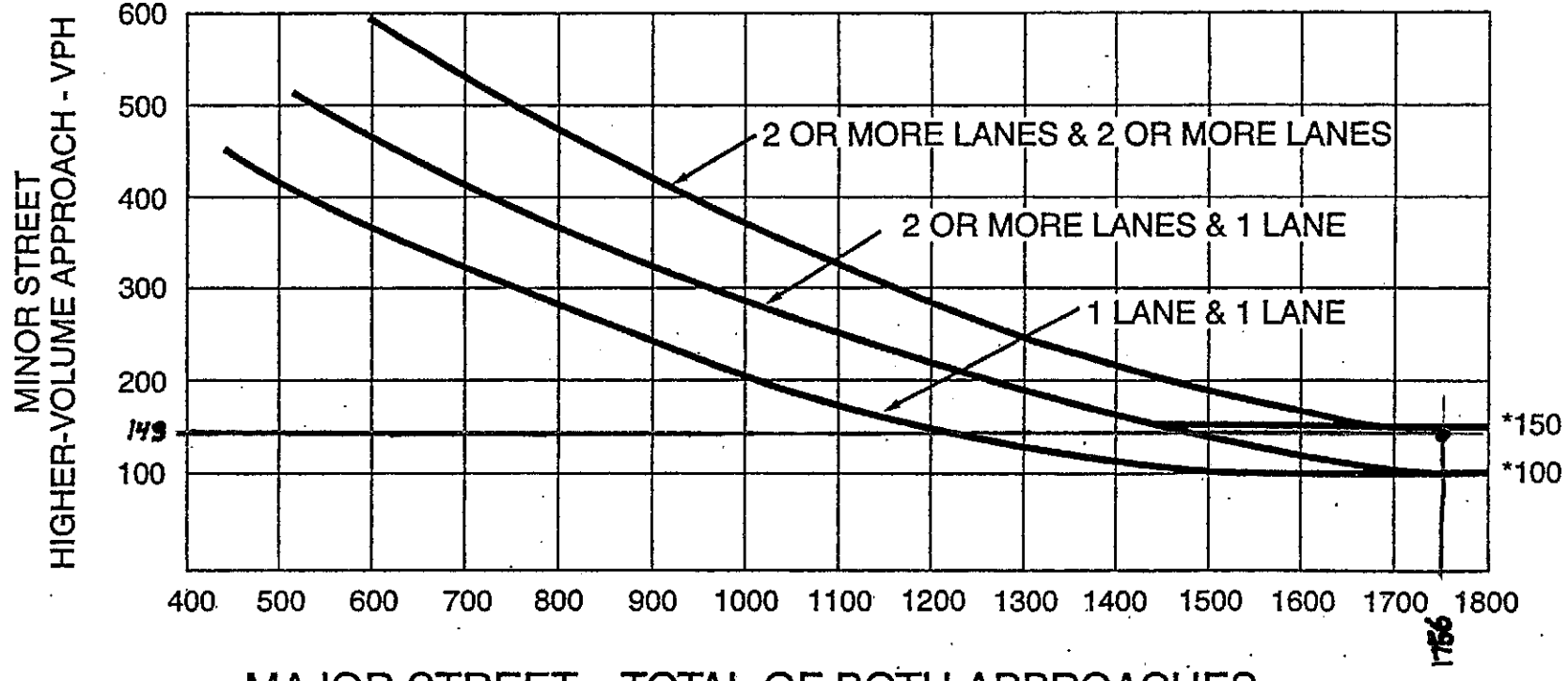
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-3. Warrant 3, Peak Hour

ROUTE 15 @ LILY BAY ROAD
POST DEVELOPMENT



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

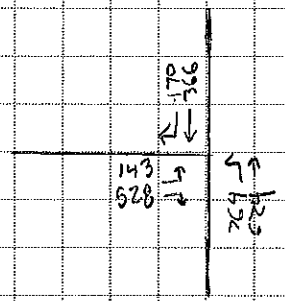
GORRILL-PALMER
CONSULTING ENGINEERS, INC.
P.O. Box 1237
GRAY, MAINE 04039
(207) 657-6910
FAX (207) 657-6912

JOB 1381.01 - MOOSEHEAD
SHEET NO. _____ OF _____
CALCULATED BY RJB DATE 3/8/06
CHECKED BY _____ DATE _____
SCALE _____

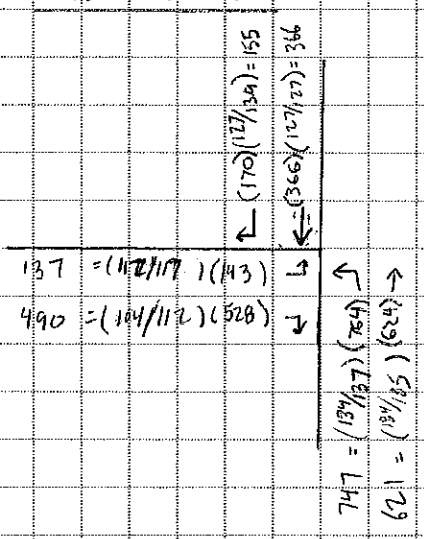
TASK : PERFORM 4 HOUR SIGNAL WARRANT FOR ROUTE 15 @ CITY BAY ROAD

ASSUMPTIONS - PEAK HOUR VOLUMES ADJUSTED BASED ON EXISTING HOURLY VARIATION AT THE INTERSECTION.

3:45 → 4:45 (PEAK HOUR)



4:45 → 5:45



GORRILL-PALMER
CONSULTING ENGINEERS, INC.
P.O. Box 1237
GRAY, MAINE 04039
(207) 657-6910
FAX (207) 657-6912

JOB _____

SHEET NO. _____ OF _____

CALCULATED BY _____ DATE _____

CHECKED BY _____ DATE _____

SCALE _____

10:30 - 11:30

(366)(117/127) = 337
(172)(196/139) = 179
516

143 = (117/117)(143)
372 = (79/112)(528)
515

658 = (118/127)(264)
631 ((187/185)(264))

11:45 → 12:45

(170)(173/139) = 212
(366)(134/127) = 377
589

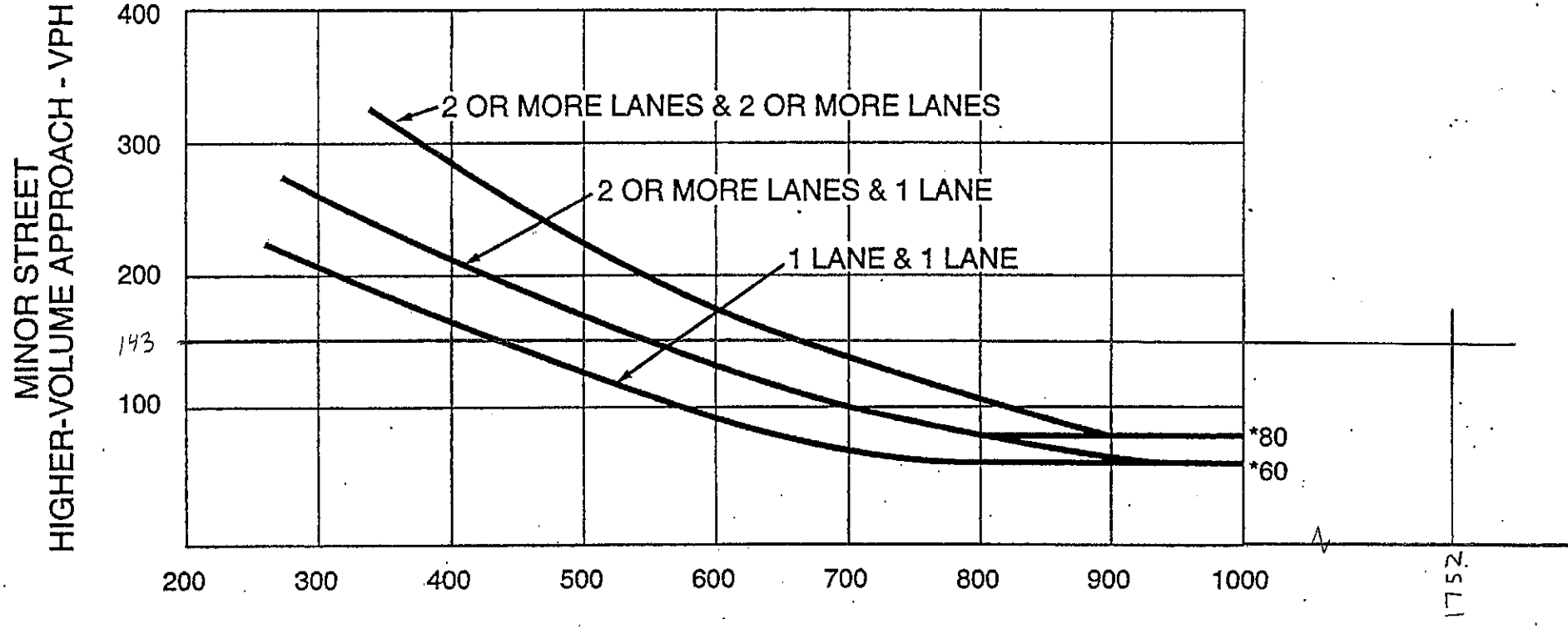
165 = (135/117)(143)
509 = (108/112)(528)
674

792 = (198/157)(784)
569 = (201/165)(504)

10:30 → 11:30

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)

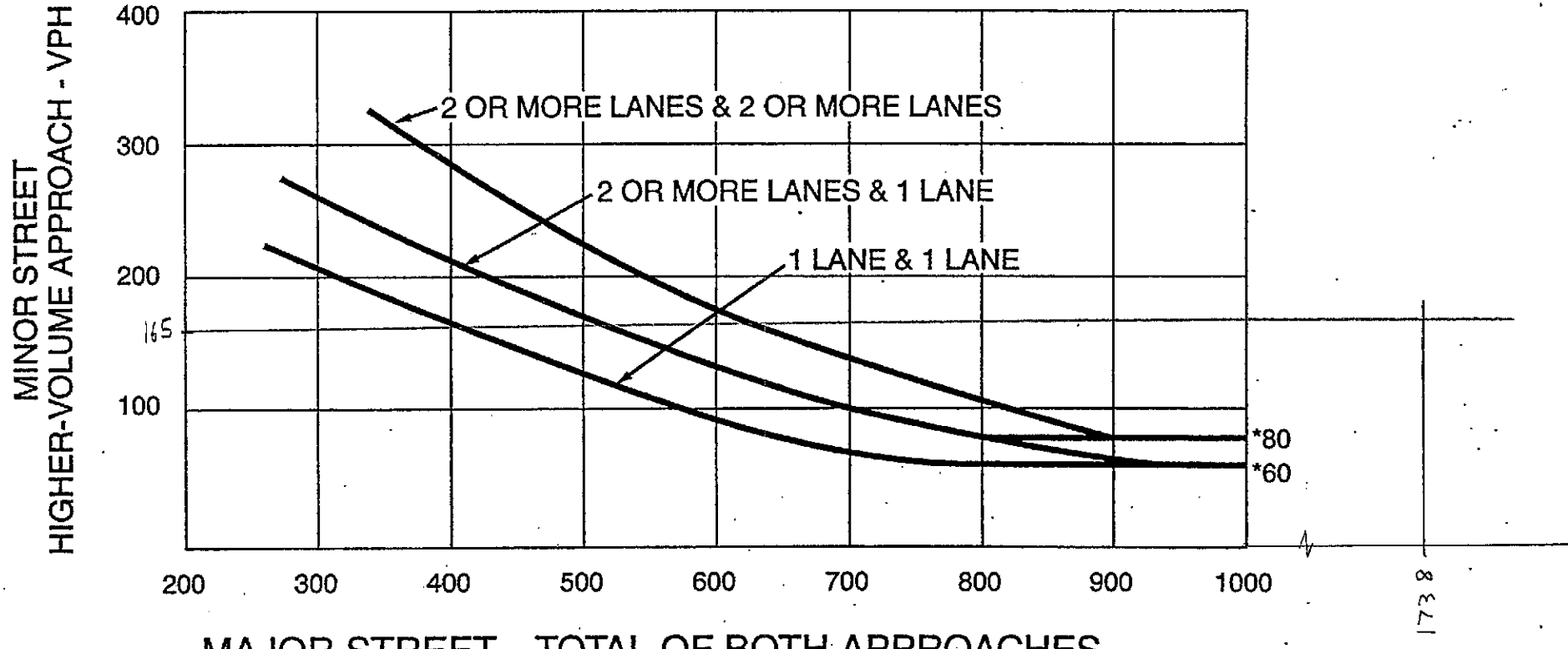


*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

11:45 → 12:45

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)

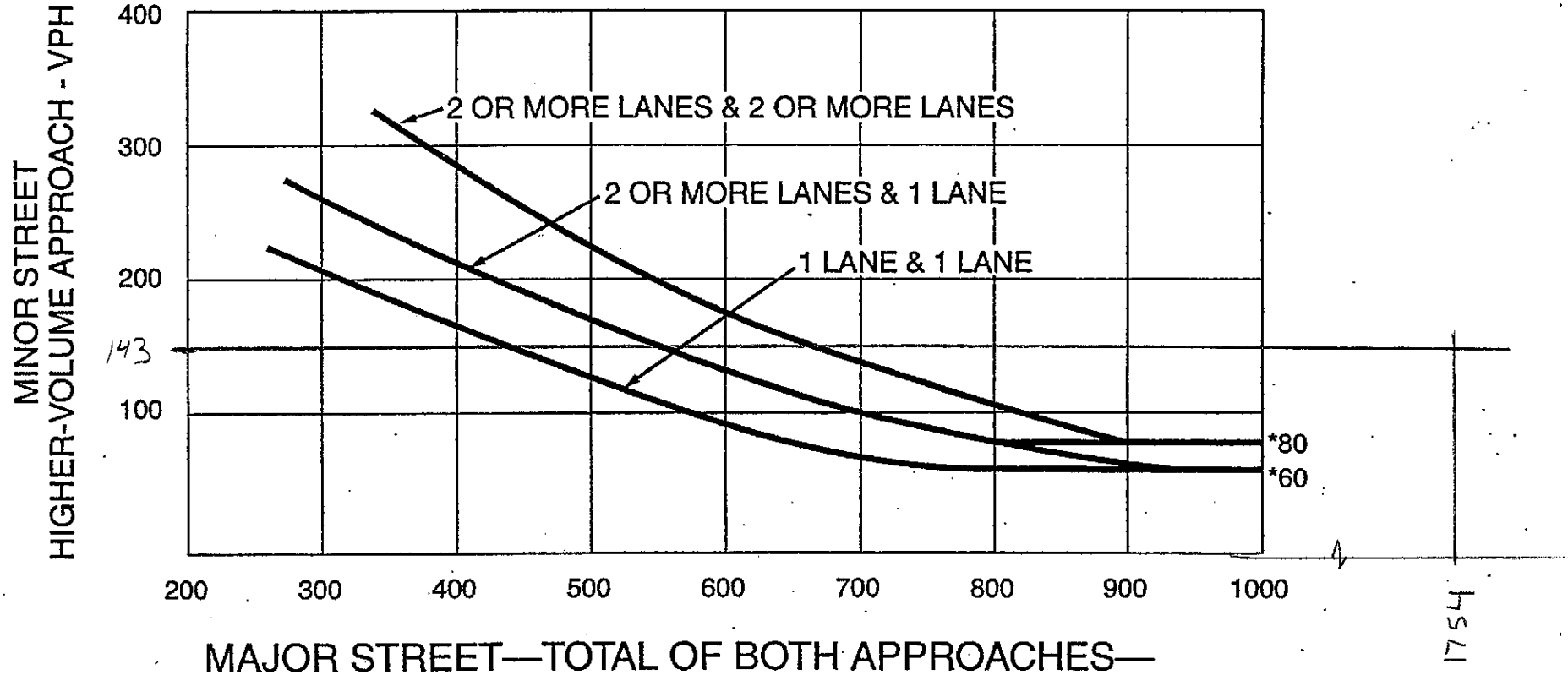


*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

3:45 → 4:45

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)

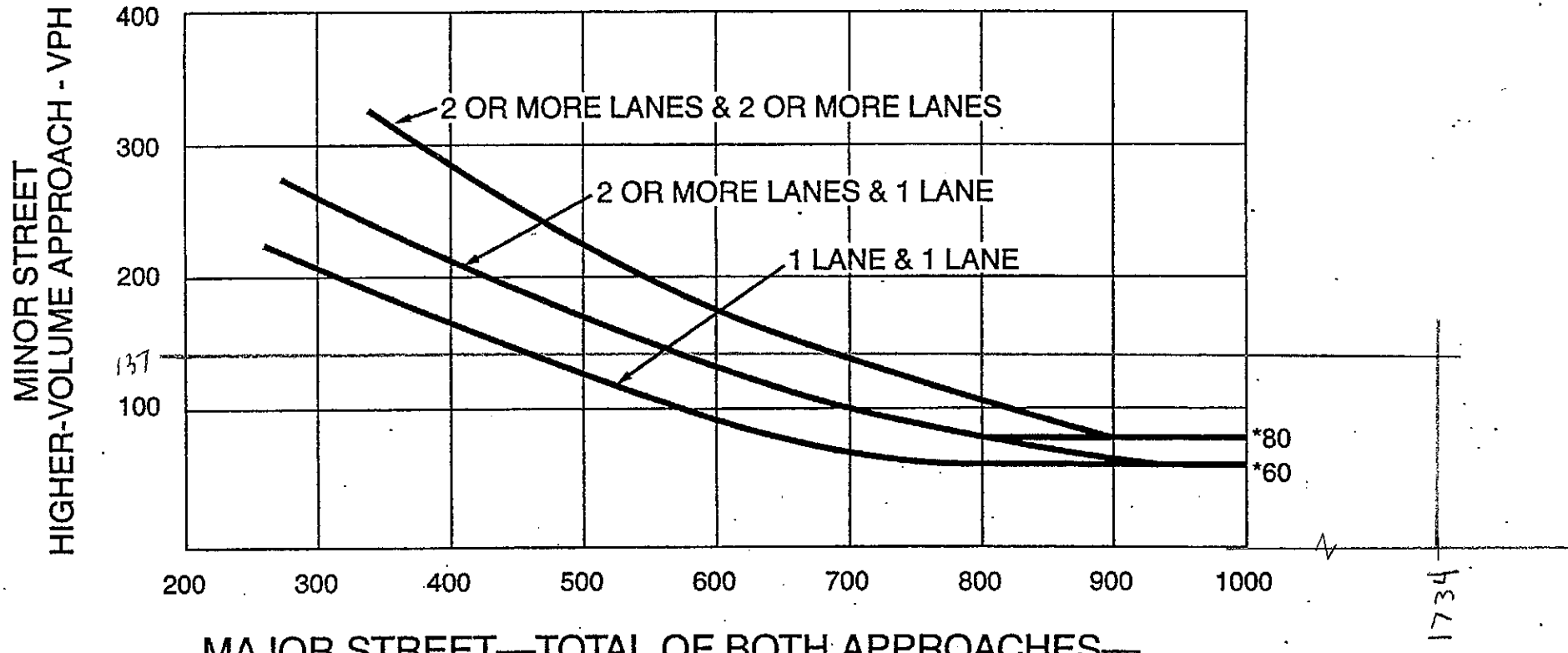


*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

4:45 → 5:45

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Gorrill-Palmer Consulting Engineers
15 Shaker Road PO Box 1237
Gray, ME 04039

Location: Greenville
Counter: SF
DB-400
Weather: Clear

File Name : Rte 15 @ Main St - Mid
Site Code : 00001381
Start Date : 9/2/2005
Page No : 1

Groups Printed- Cars - Single Unit Trucks - Combination Vehicles

	MAIN ST From North					RTE 15 From East					MAIN ST From South					RTE 15 From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
10:30 AM	1	37	46	7	91	0	0	1	6	7	27	51	1	1	80	32	0	21	2	55	233
10:45 AM	0	44	48	8	100	0	0	0	1	1	27	54	0	0	81	29	0	24	1	54	236
Total	1	81	94	15	191	0	0	1	7	8	54	105	1	1	161	61	0	45	3	109	469
11:00 AM	0	43	21	0	64	0	1	0	3	4	39	49	1	0	89	28	0	18	5	51	208
11:15 AM	0	37	31	1	69	0	0	0	0	0	25	33	0	0	58	28	0	16	5	49	176
11:30 AM	0	32	31	5	68	0	0	0	6	6	28	41	1	0	70	39	0	29	1	69	213
11:45 AM	1	34	44	2	81	0	0	0	2	2	35	47	0	2	84	38	0	21	5	64	231
Total	1	146	127	8	282	0	1	0	11	12	127	170	2	2	301	133	0	84	16	233	828
12:00 PM	0	37	43	5	85	0	0	0	0	0	44	58	1	0	103	28	0	22	4	54	242
12:15 PM	0	26	48	12	86	0	0	0	5	5	28	50	0	2	80	37	0	30	2	69	240
12:30 PM	0	34	38	0	72	0	1	0	1	2	35	46	0	0	81	32	0	35	2	69	224
12:45 PM	0	31	46	1	78	0	0	0	9	9	30	45	0	3	78	26	0	21	0	47	212
Total	0	128	175	18	321	0	1	0	15	16	137	199	1	5	342	123	0	108	8	239	918
Grand Total	2	355	396	41	794	0	2	1	33	36	318	474	4	8	804	317	0	237	27	581	2215
Apprch %	0.3	44.7	49.9	5.2		0	5.6	2.8	91.7		39.6	59	0.5	1		54.6	0	40.8	4.6		
Total %	0.1	16	17.9	1.9	35.8	0	0.1	0	1.5	1.6	14.4	21.4	0.2	0.4	36.3	14.3	0	10.7	1.2	26.2	
Cars	2	339	381	38	760	0	2	1	30	33	285	456	4	8	753	302	0	213	24	539	2085
% Cars	100	95.5	96.2	92.7	95.7	0	100	100	90.9	91.7	89.6	96.2	100	100	93.7	95.3	0	89.9	88.9	92.8	94.1
Single Unit Trucks	0	13	13	3	29	0	0	0	3	3	17	15	0	0	32	13	0	9	3	25	89
% Single Unit Trucks	0	3.7	3.3	7.3	3.7	0	0	0	9.1	8.3	5.3	3.2	0	0	4	4.1	0	3.8	11.1	4.3	4
Combination Vehicles	0	3	2	0	5	0	0	0	0	0	16	3	0	0	19	2	0	15	0	17	41
% Combination Vehicles	0	0.8	0.5	0	0.6	0	0	0	0	0	5	0.6	0	0	2.4	0.6	0	6.3	0	2.9	1.9

Gorrill-Palmer Consulting Engineers

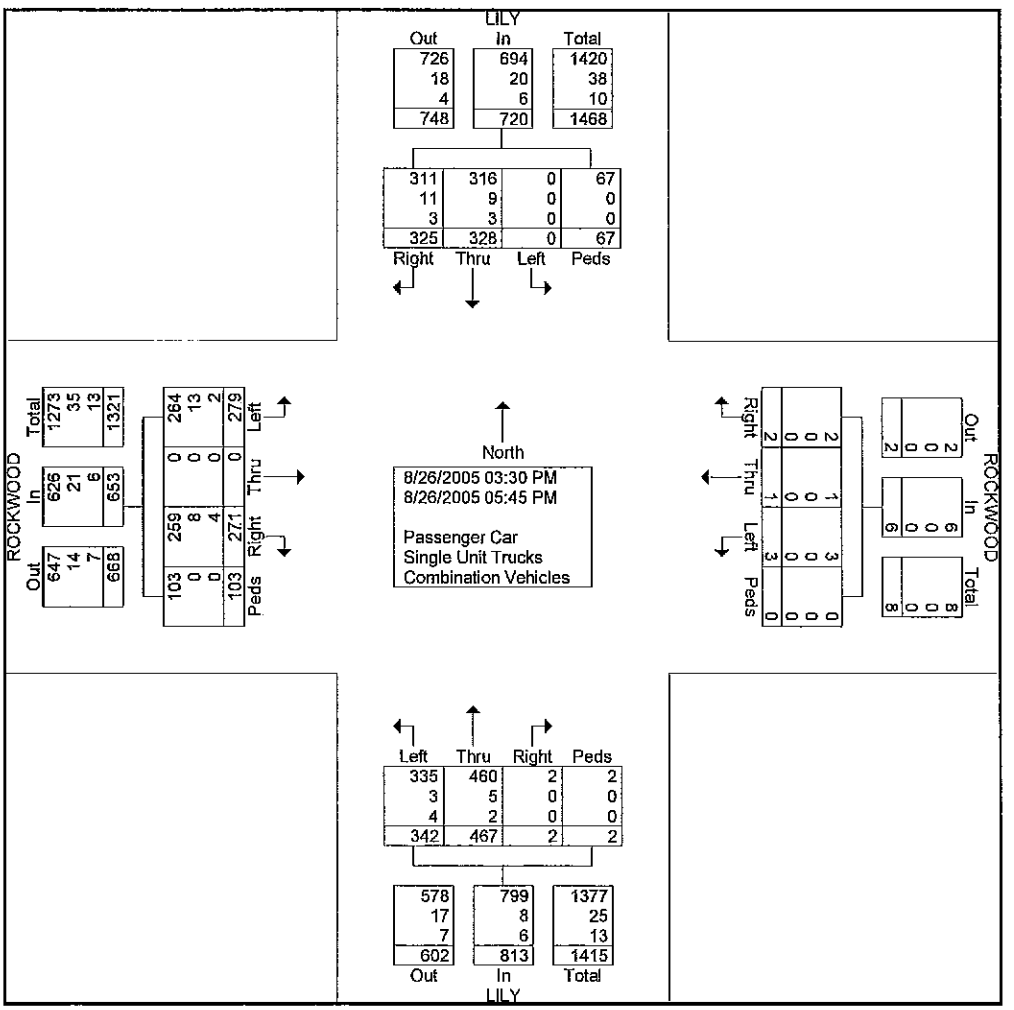
15 Shaker Road PO Box 1237
Gray, ME 04039

Location: Greenville, Maine
Counted By: CAP
DB-400
Weather: Clear

File Name : 8-26-05 FRI-PM
Site Code : 00001381
Start Date : 8/26/2005
Page No : 1

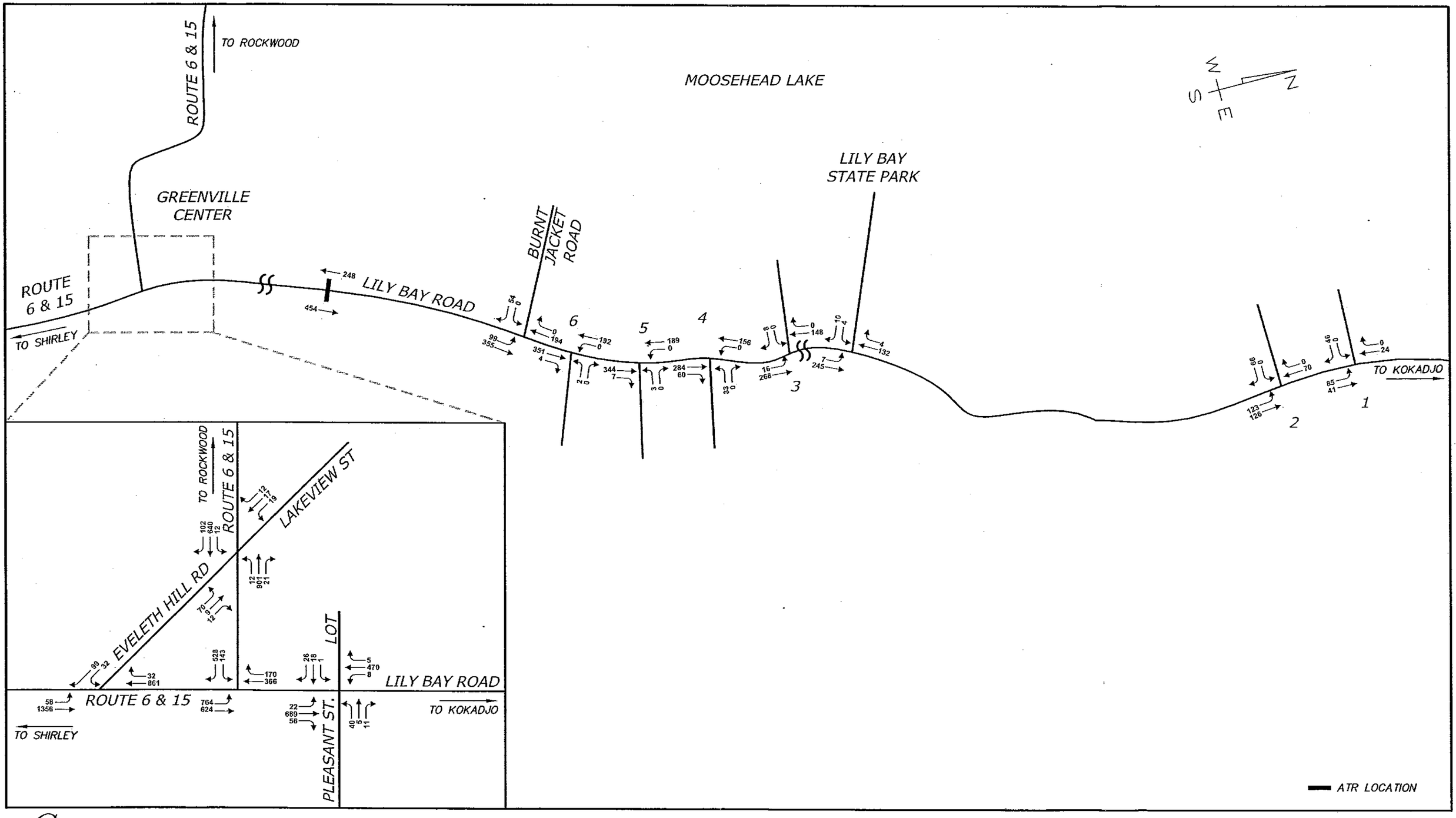
Groups Printed- Passenger Car - Single Unit Trucks - Combination Vehicles

	LILY From North					ROCKWOOD From East					LILY From South					ROCKWOOD From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
03:30 PM	0	46	28	8	82	0	0	0	0	0	37	48	0	0	85	19	0	26	4	49	216
03:45 PM	0	34	38	17	89	0	0	0	0	0	38	47	0	1	86	36	0	35	23	94	269
Total	0	80	66	25	171	0	0	0	0	0	75	95	0	1	171	55	0	61	27	143	485
04:00 PM	0	40	32	2	74	3	0	1	0	4	38	50	2	0	90	34	0	24	11	69	237
04:15 PM	0	28	30	13	71	0	0	0	0	0	31	41	0	0	72	21	0	35	11	67	210
04:30 PM	0	25 127	39 139	2	66	0	1	1	0	2	30 137	47 185	0	0	77	26 117	0	28 122	18	72	217
04:45 PM	0	32	41	6	79	0	0	0	0	0	35	42	0	1	78	20	0	24	10	54	211
Total	0	125	142	23	290	3	1	2	0	6	134	180	2	1	317	101	0	111	50	262	875
05:00 PM	0	41	41	2	84	0	0	0	0	0	42	44	0	0	86	34	0	30	8	72	242
05:15 PM	0	27	24	11	62	0	0	0	0	0	28	58	0	0	86	29	0	23	9	61	209
05:30 PM	0	27 127	21 127	4	52	0	0	0	0	0	29 134	40 184	0	0	69	29 112	0	27 104	5	61	182
05:45 PM	0	28	31	2	61	0	0	0	0	0	34	50	0	0	84	31	0	19	4	54	199
Total	0	123	117	19	259	0	0	0	0	0	133	192	0	0	325	123	0	99	26	248	832
Grand Total	0	328	325	67	720	3	1	2	0	6	342	467	2	2	813	279	0	271	103	653	2192
Apprch %	0	45.6	45.1	9.3		50	16.7	33.3	0		42.1	57.4	0.2	0.2		42.7	0	41.5	15.8		
Total %	0	15	14.8	3.1	32.8	0.1	0	0.1	0	0.3	15.6	21.3	0.1	0.1	37.1	12.7	0	12.4	4.7	29.8	
Passenger Car	0	316	311	67	694	3	1	2	0	6	335	460	2	2	799	264	0	259	103	626	2125
% Passenger Car	0	96.3	95.7	100	96.4	100	100	100	0	100	98	98.5	100	100	98.3	94.6	0	95.6	100	95.9	96.9
Single Unit Trucks	0	9	11	0	20	0	0	0	0	0	3	5	0	0	8	13	0	8	0	21	49
% Single Unit Trucks	0	2.7	3.4	0	2.8	0	0	0	0	0	0.9	1.1	0	0	1	4.7	0	3	0	3.2	2.2
Combination Vehicles	0	3	3	0	6	0	0	0	0	0	4	2	0	0	6	2	0	4	0	6	18
% Combination Vehicles	0	0.9	0.9	0	0.8	0	0	0	0	0	1.2	0.4	0	0	0.7	0.7	0	1.5	0	0.9	0.8



Postdevelopment Volumes

Figure No. 7A



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PLUM CREEK'S REZONING PROPOSAL
MOOSEHEAD LAKES REGION, MAINE

Design: RJB
Draft: DB
Checked: RCN
Date: MARCH 2006
File Name: 1381-01_TRAF.dwg

MAR 2,2006 AT 08:12

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL

STUDY PERIOD: FROM MONTH 01 YEAR 2002 TO MONTH 12 YEAR 2004

INPUT COMMENTS

REQUEST: INT OF RTE 6/15 & LILY BAY RD AREA
TOWN: GREENVILLE

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	LAST NODE	EXCLUDE LAST	DISTANCE
01459	21	07064	1	0.00	01266	06060	1	0.00
01354		07065	1	0.00	01280	01280	0	0.00
01459		06060	1	0.00	01267	01267	0	0.00
01349		07066	1	0.00	01284	01284	0	0.00
01474		01266	1	0.00	01349	01892	0	0.00
01463		01892	1	0.00	06061	06061	1	0.00
00484		01896	1	0.00	01283	07291	0	0.00
02236		07291	1	0.00	07292	07292	0	0.00
00482		01098	1	0.00	01112	01114	0	0.00
00481		01112	1	0.00	01111	01111	0	0.00
01546		01111	1	0.00	01108	01108	1	0.00

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	INJURY ACCIDENTS K	A	B	C	PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	NODE	CRITI RATE	CRF
21	01266	GRVL,	LAKEVIEW, LAKEVIEW	1	0		0	0	0	0	0	0.0		0.691		0.00	0.63	0.00
21	01280	GRVL,	WASHINGTON, PROSPEC	1	1		0	0	1	0	0	100.0		0.179		1.86	0.64	2.91
21	01267	GRVL,	HIGH, LAKEVIEW ST.	1	0		0	0	0	0	0	0.0		0.186		0.00	0.64	0.00
21	01284	GRVL,	MINDEN ST, END	1	0		0	0	0	0	0	0.0		0.076		0.00	0.12	0.00
21	01349	GRVL,	RD.1474, .31 BK.OLI	1	0		0	0	0	0	0	0.0		0.117		0.00	0.47	0.00
21	01892	GRVL,	PARK, OLIVER, LAKEVI	1	0		0	0	0	0	0	0.0		0.117		0.00	0.47	0.00
21	01283	GRVL,	PLEASANT, SHAW ST.	1	0		0	0	0	0	0	0.0		0.385		0.00	0.76	0.00
21	01281	GRVL,	PLEASANT, PROSPECT	1	0		0	0	0	0	0	0.0		0.336		0.00	0.77	0.00
21	01097	GRVL,	PLEASANT, .13 BK.PR	1	0		0	0	0	0	0	0.0		0.283		0.00	0.78	0.00
21	01108	GRVL,	RD.484, RD.1546	1	0		0	0	0	0	0	0.0		0.248		0.00	0.77	0.00
21	07291	GRVL,	RD 484, SCOTT RD	1	0		0	0	0	0	0	0.0		0.109		0.00	0.43	0.00
21	07292	GRVL,	SCOTT RD, PRIV.BRDG	1	0		0	0	0	0	0	0.0		0.042		0.00	0.90	0.00
21	01112	GRVL,	PYGENSKY FARM, SCAM	1	0		0	0	0	0	0	0.0		0.115		0.00	0.46	0.00
21	01114	GRVL,	SCAMMON RD, END	1	0		0	0	0	0	0	0.0		0.029		0.00	2.08	0.00
21	01111	GRVL,	PYGENSKY FARM RD, R	1	0		0	0	0	0	0	0.0		0.124		0.00	0.63	0.00
			NODE SUBTOTALS-		1		0	0	1	0	0	100.0		3.037		0.11	0.47	0.00

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	INJURY ACCIDENTS K	A	B	C	PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	NODE	CRITI RATE	CRF
21090	01266	07064	LAKEVIEW ST.	1	0	0.10	0	0	0	0	0	0.0	0.00069		0.00		997.15	0.00
	01266	06060		1	0	0.08	0	0	0	0	0	0.0	0.00045		0.00		1095.76	0.00
	01280	07065	WASHINGTON ST.	1	1	0.24	0	0	0	0	1	0.0	0.00044		757.58		1100.70	0.00
	01267	06060	LAKEVIEW ST.	1	0	0.16	0	0	0	0	0	0.0	0.00032		0.00		1164.96	0.00
	01284	07066	MINDEN ST.	1	0	0.05	0	0	0	0	0	0.0	0.00008		0.00		1004.05	0.00
	01266	01349	LAKEVIEW MANOR	1	0	0.24	0	0	0	0	0	0.0	0.00032		0.00		1164.96	0.00
	01349	01892		1	0	0.31	0	0	0	0	0	0.0	0.00031		0.00		1170.59	0.00
	01892	06061	OLIVER RD	1	0	0.24	0	0	0	0	0	0.0	0.00012		0.00		1184.10	0.00
	01283	01896	PLEASANT ST.	1	0	0.17	0	0	0	0	0	0.0	0.00063		0.00		792.51	0.00
	01281	01283		1	0	0.05	0	0	0	0	0	0.0	0.00016		0.00		852.91	0.00
	01097	01281		1	0	0.13	0	0	0	0	0	0.0	0.00038		0.00		863.17	0.00
	01097	01108	00484	1	0	1.39	0	0	0	0	0	0.0	0.00381		0.00		508.45	0.00
	01108	07291		1	1	1.32	0	0	0	0	1	0.0	0.00154		216.45		814.88	0.00
	07291	07292	SCOTT RD	1	0	0.67	0	0	0	0	0	0.0	0.00056		0.00		1046.09	0.00
	01098	01112	SCAMMON RD	1	2	1.33	0	0	0	0	2	0.0	0.00146		456.62		826.22	0.00
	01112	01114	SCAMMON RD.	1	0	1.05	0	0	0	0	0	0.0	0.00061		0.00		1026.13	0.00
	01111	01112	PYGENSKY FARM	1	0	0.87	0	0	0	0	0	0.0	0.00044		0.00		1100.70	0.00
	01108	01111	01546	1	0	0.58	0	0	0	0	0	0.0	0.00061		0.00		797.67	0.00
			LINK SUBTOTALS-		4	8.98	0	0	0	0	4	0.0	0.01293		103.11		444.73	0.00
			GRAND TOTALS-		5	8.98	0	0	1	0	4	20.0	0.01293	3.037	128.89		492.73	0.26

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

	---A M---												HOUR OF DAY						---P M---							
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	UNKNOWN	TOTAL	
SUNDAY	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	S
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	M
TUESDAY	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	T
WEDNESDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	W
THURSDAY	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	T
FRIDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	F
SATURDAY	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	S
UNKNOWN	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	U
TOTAL	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	1	0	0	1	0	0	0	5	T

	YEAR			
	TOTAL	2002	2003	2004
JANUARY	1	1	0	0
FEBRUARY	0	0	0	0
MARCH	0	0	0	0
APRIL	0	0	0	0
MAY	1	1	0	0
JUNE	1	1	0	0
JULY	0	0	0	0
AUGUST	1	0	1	0
SEPTEMBER	0	0	0	0
OCTOBER	1	0	1	0
NOVEMBER	0	0	0	0
DECEMBER	0	0	0	0
UNKNOWN	0	0	0	0
TOTAL	5	3	2	0

TYPE OF UNIT

01-2 DOOR	1	10-BOBTAIL	0
02-4 DOOR	1	20-2ADT	0
03-CONVERTBLE	0	30-3ASU	1
04-STAT WGN	0	40-4ASU	0
05-VAN/CAMPER	0	21-2ASA	0
06-PICKUP TRK	4	22-2ATA	0
12-SCHOOL BUS	0	31-3ASA	0
13-MOTOR HOME	0	32-3ATA	0
14-MOTORCYCLE	0	33-3ATR	1
15-MOPED	0	42-4ATA	0
16-MOTOR BIKE	0	25-2AT1A2ATR	0
17-BICYCLE	1	35-3AT1A2ATR	0
18-SNOWMOBILE	0	36-3AT2A2ATR	0
19-PEDESTRIAN	0	50-OTHER	0
23-ATV	0	81-2AX CM BUS	0
07-SUV	0	82-3AX CM BUS	0
99-UNK/OTH	0	98-FARM/TRAC	0
	TOTAL	9	

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

TYPE OF LOCATION

ACCIDENT TYPE	ST ROAD	CURV ROAD	**AT INTERSECTION** 3-LEG	4-LEG	5-LEG	DRIVE WAYS	BRIDGE	INTER CHANGE	UN KNOWN	TOTAL
OBJECT IN ROAD	0	0	0	0	0	0	0	0	0	0
REAR END/SIDESWIPE	1	0	0	0	0	0	0	0	0	1
HEAD-ON/SIDESWIPE	0	1	0	0	0	0	0	0	0	1
INTERSECTION MOVEMENT	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	0	0	0	0	0	0	0	0	0	0
TRAIN	0	0	0	0	0	0	0	0	0	0
RAN OFF ROAD	0	0	0	0	0	0	0	0	0	0
ANIMAL	0	0	0	0	0	0	0	0	0	0
DEER	0	0	0	0	0	0	0	0	0	0
MOOSE	1	0	0	0	0	0	0	0	0	1
BEAR	0	0	0	0	0	0	0	0	0	0
SLED/BIKE	0	0	1	0	0	0	0	0	0	1
OTHER	0	0	0	0	0	1	0	0	0	1
NON COLLISION	0	0	0	0	0	0	0	0	0	0
UNKNOWN	0	0	0	0	0	0	0	0	0	0
TOTAL	2	1	1	0	0	1	0	0	0	5

INJURY DATA

SEV CODE	INJURY ACCIDENTS	NUMBER OF INJURIES
K	0	0
A	0	0
B	1	1
C	0	0
PD	4	
TOTAL	5	1

FIXED OBJECT STRUCK

CONSTRUCTION BARRICADES	0
TRAFFIC SIGNAL	0
R/R CROSSING	0
LIGHT POLE	0
UTILITY POLE	0
SIGN POST	0
MAIL BOXES	0
OTHER POLES/POSTS	0
FIRE PLUG/PARK METER	0
TREE/SHRUBBERY	0
CRASH CUSHION	0
MEDIAN SAFETY BARRIER	0
BRIDGE PIERS	0
OTHER GUARDRAILS	0
FENCING NOT BARRIER	0
CULVERT HEADWALL	0
EMBANKMENT/DITCH	0
BUILDING WALL	0
ROCK OUTCROPPING/LEDGE	0
OTHER	0
UNKNOWN	0
TOTAL	0

TRAFFIC CONTROL DEVICES

TRAFFIC SIG STOP/GO	0
TRAFFIC SIG FLASHING	0
OVERHEAD FLASHERS	0
ALL WAY STOP	0
STOP SIGN/OTHER	1
YIELD SIGN	0
CURVE SIGN	0
OFFICER /SCHOOL PAT	0
SCHOOL BUS STOP ARM	0
SCHOOL ZONE SIGN	0
R/R CROSSING DEVICE	0
NO PASSING ZONE	0
NONE	4
OTHER	0
UNKNOWN	0
TOTAL	5

ROAD CHARACTER

LEVEL STRAIGHT	2
LEVEL CURVED	0
ON GRADE STRAIGHT	1
ON GRADE CURVED	1
TOP OF HILL STRAIGHT	0
TOP OF HILL CURVED	0
BOTTOM OF HILL STRAIGHT	1
BOTTOM OF HILL CURVED	0
UNKNOWN	0
TOTAL	5

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

APPARENT CONTRIBUTING FACTOR	DR 1	DR 2	DR 3	DR 4	DR 5	OTHER	TOTAL
HUMAN FACTORS							
NO INPROPER DRIVING	2	2	0	0	0	0	4
FAIL TO YIELD R-WAY	0	0	0	0	0	0	0
ILLEGAL UNSAFE SPEED	1	0	0	0	0	0	1
FOLLOW TOO CLOSE	0	0	0	0	0	0	0
DISREGARD TRAF CONTROL	0	0	0	0	0	0	0
DRIVING LEFT OF CENTER	1	0	0	0	0	0	1
IMPROPER PASSING	0	0	0	0	0	0	0
IMPROPER LANE CHANGE	0	0	0	0	0	0	0
IMPROPER START/STOP	0	0	0	0	0	0	0
IMPROPER TURN	0	0	0	0	0	0	0
UNSAFE BACKING	0	1	0	0	0	0	1
NO PROPER SIGNAL	0	0	0	0	0	0	0
IMPEDING TRAFFIC	1	0	0	0	0	0	1
DRIVER INATTENTION	0	0	0	0	0	0	0
DRIVER INEXPERIENCE	0	0	0	0	0	0	0
PEDESTRIAN VIOLATION	0	0	0	0	0	0	0
PHYSICAL IMPAIRMENT	0	0	0	0	0	0	0
VISION OBSCURED GLASS	0	0	0	0	0	0	0
VISION OBSCURED LIGHT	0	0	0	0	0	0	0
VISION OBSCURED OTHER	0	0	0	0	0	0	0
OTHER HUMAN FACTOR	0	0	0	0	0	0	0
HIT & RUN	0	0	0	0	0	0	0
VEHICULAR FACTORS							
DEFECTIVE BRAKES	0	0	0	0	0	0	0
DEFECTIVE TIRE	0	0	0	0	0	0	0
DEFECTIVE LIGHTS	0	0	0	0	0	0	0
DEFECTIVE SUSPENSION	0	0	0	0	0	0	0
DEFECTIVE STEERING	0	0	0	0	0	0	0
OTHER VEHICLE DEFECT	0	0	0	0	0	0	0
UNKNOWN	0	1	0	0	0	0	1
TOTAL	5	4	0	0	0	0	9

APPARENT PHYSICAL CONDITION	DR 1	DR 2	DR 3	DR 4	DR 5	OTHER	TOTAL
NORMAL	5	3	0	0	0	0	8
UNDER THE INFLUENCE	0	0	0	0	0	0	0
DRINKING	0	0	0	0	0	0	0
USING DRUGS	0	0	0	0	0	0	0
ASLEEP	0	0	0	0	0	0	0
FATIGUED	0	0	0	0	0	0	0
ILL	0	0	0	0	0	0	0
HANDICAPPED	0	0	0	0	0	0	0
OTHER/UNKNOWN	0	1	0	0	0	0	1
TOTAL	5	4	0	0	0	0	9

AGE	TYPE OF UNIT: DRIVER	BIKE	SNOW SLED	PED	ATV	TOTAL
9-UNDER	0	1	0	0	0	1
10-14	0	0	0	0	0	0
15-19	2	0	0	0	0	2
20-24	1	0	0	0	0	1
25-29	0	0	0	0	0	0
30-39	2	0	0	0	0	2
40-49	1	0	0	0	0	1
50-59	2	0	0	0	0	2
60-69	0	0	0	0	0	0
70-79	0	0	0	0	0	0
80-OVER	0	0	0	0	0	0
UNKNOWN	0	0	0	0	0	0
TOTAL	8	1	0	0	0	9

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

ROAD SURFACE

WEATHER	LIGHT CONDITION	DRY	WET	SNOW SAND	ICE SAND	MUD	DEBRIS	OIL	SNOW	ICE	OTHER	TOTAL
CLEAR	DAWN	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	2	0	0	1	1	0	0	0	0	0	4
(5)	DUSK	1	0	0	0	0	0	0	0	0	0	1
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
RAIN	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
SNOW	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
SLEET/HAIL	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
FOG/SMOG	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0

LIGHT	
DAWN	0
DAYLIGHT	4
DUSK	1
DARK-LIGHTS	0
DARK NO LIGHTS	0
DARK LIGHTS OFF	0
OTHER	0
UNKNOWN	0
TOTAL	5

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

WEATHER	LIGHT CONDITION	ROAD SURFACE: DRY	WET	SNOW SAND	ICE SAND	MUD	DEBRIS	OIL	SNOW	ICE	OTHER	TOTAL
CROSS WINDS	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
SAND/DUST	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
CLOUDY	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
OTHER	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
ROAD SURFACE TOTALS		3	0	0	1	1	0	0	0	0	0	5

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL

STUDY PERIOD: FROM MONTH 01 YEAR 2002 TO MONTH 12 YEAR 2004

INPUT COMMENTS

REQUEST: INT OF RTE 6/15 & LILY BAY RD AREA
TOWN: GREENVILLE

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	LAST NODE	EXCLUDE LAST	DISTANCE
01459	21	07064	1	0.00	01266	06060	1	0.00
01354		07065	1	0.00	01280	01280	0	0.00
01459		06060	1	0.00	01267	01267	0	0.00
01349		07066	1	0.00	01284	01284	0	0.00
01474		01266	1	0.00	01349	01892	0	0.00
01463		01892	1	0.00	06061	06061	1	0.00
00484		01896	1	0.00	01283	07291	0	0.00
02236		07291	1	0.00	07292	07292	0	0.00
00482		01098	1	0.00	01112	01114	0	0.00
00481		01112	1	0.00	01111	01111	0	0.00
01546		01111	1	0.00	01108	01108	1	0.00

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

LINK DETAIL

TOWN#	STREET NAME OR ROUTE #	LOW NODE	HIGH NODE	DISTANCE	TOTAL ACCIDENTS	INJURY ACCIDENTS K	A	B	C	PD	ACCIDENT REPORT NUMBERS
21090	LAKEVIEW ST.	01266	07064	0.0	0	0	0	0	0	0	
	00484	01280	07065	0.1	1	0	0	0	0	1	200324395
	SCOTT RD	01108	07291	0.1	1	0	0	0	0	1	200332507
		01098	01112	0.8	1	0	0	0	0	1	200214987
	01546			0.9	1	0	0	0	0	1	200200227
				TOTALS-	4	0	0	0	0	4	

MAR 2,2006 AT 08:12

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL

STUDY PERIOD: FROM MONTH 01 YEAR 2002 TO MONTH 12 YEAR 2004

INPUT COMMENTS

REQUEST: LILY BAY RD
TOWN: GREENVILLE - LILY BAY TOWNSHIP

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	LAST NODE	EXCLUDE LAST	DISTANCE
00306	21	07067	1	0.00	01896	01784	0	0.00

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	INJURY ACCIDENTS K	A	B	C	PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	NODE	CRITI RATE	CRF
21	01896	GRVL,LILY BAY RD,PLEASA		1	1		0	0	0	0	1	0.0		2.011		0.17	0.43	0.00
21	01287	GRVL.LILY BAY RD,NORRIS		1	0		0	0	0	0	0	0.0		1.491		0.00	0.46	0.00
21	01288	GRVL,LILY BAY RD,COTTAG		1	0		0	0	0	0	0	0.0		1.310		0.00	0.47	0.00
21	01291	GRVL,LILY BAY RD,LINCOL		1	1		0	0	0	0	1	0.0		1.250		0.27	0.48	0.00
21	01295	GRVL,LILY BAY RD,VILLAG		1	0		0	0	0	0	0	0.0		1.153		0.00	0.48	0.00
21	01297	GRVL,LILY BAY RD,MURRAY		1	0		0	0	0	0	0	0.0		1.107		0.00	0.49	0.00
21	01299	GRVL,LILY BAY RD,FOSS S		1	0		0	0	0	0	0	0.0		1.076		0.00	0.49	0.00
21	01301	GRVL,LILY BAY RD,PREO S		1	0		0	0	0	0	0	0.0		1.047		0.00	0.49	0.00
21	01303	GRVL,LILY BAY RD,MILL S		1	0		0	0	0	0	0	0.0		1.010		0.00	0.50	0.00
21	01884	GRVL,LILY BAY RD,LEISUR		1	0		0	0	0	0	0	0.0		0.969		0.00	0.50	0.00
21	01310	GRVL,LILY BAY RD,LAWREN		1	0		0	0	0	0	0	0.0		0.938		0.00	0.51	0.00
21	01311	GRVL,LILY BAY RD,MCAFFE		1	0		0	0	0	0	0	0.0		0.865		0.00	0.51	0.00
21	07226	GRVL,LILY BAY RD,BIRCH		1	0		0	0	0	0	0	0.0		0.837		0.00	0.52	0.00
21	01098	GRVL,LILY BAY RD,SCAMMO		1	1		0	0	0	0	1	0.0		0.735		0.45	0.53	0.00
21	01118	TL GREENVILLE-BEAVER CO		1	0		0	0	0	0	0	0.0		0.505		0.00	0.55	0.00
21	01765	BEA.CO,RD 306,COVESIDE		1	0		0	0	0	0	0	0.0		0.390		0.00	0.56	0.00
21	01768	BEA.CO,LILLY BAY RD,CIR		1	0		0	0	0	0	0	0.0		0.388		0.00	0.56	0.00
21	01769	BEA.CO,RD 306,NORTH RDG		1	0		0	0	0	0	0	0.0		0.376		0.00	0.56	0.00
21	07298	BEA.CO,RD 306,CIRCLE LA		1	0		0	0	0	0	0	0.0		0.325		0.00	0.56	0.00
21	01773	BEA.CO,RD 306,STATE PAR		1	0		0	0	0	0	0	0.0		0.319		0.00	0.56	0.00
21	01781	BEA.CO,RD.306,1337		1	0		0	0	0	0	0	0.0		0.229		0.00	0.52	0.00
21	01813	TL,LILY BAY TWP-BEAVER		1	0		0	0	0	0	0	0.0		0.219		0.00	0.51	0.00
21	01838	TL,BEAVER COVE,LILY BAY		1	0		0	0	0	0	0	0.0		0.213		0.00	0.51	0.00
21	01783	TL,BEAVER COVE-LILY BAY		1	0		0	0	0	0	0	0.0		0.210		0.00	0.51	0.00
21	07212	L.BAY,RD 306,RD 2107 PW		1	0		0	0	0	0	0	0.0		0.204		0.00	0.50	0.00
21	07240	LIL.BAY,IR#306,SOUTH BR		1	0		0	0	0	0	0	0.0		0.202		0.00	0.50	0.00
21	07210	L.BAY,STOREHOUSE RD,RD.		1	0		0	0	0	0	0	0.0		0.197		0.00	0.49	0.00
21	07242	LIL.BAY,IR#306,NORTH SH		1	0		0	0	0	0	0	0.0		0.191		0.00	0.48	0.00
21	07244	LIL.BAY,IR#306,SPENCER		1	0		0	0	0	0	0	0.0		0.199		0.00	0.49	0.00
21	01814	L.BAY,RD.306,RD.2262 PW		1	0		0	0	0	0	0	0.0		0.157		0.00	0.42	0.00
21	01784	TL,FRENCHTOWN-LILY BAY		1	0		0	0	0	0	0	0.0		0.151		0.00	0.41	0.00
		NODE SUBTOTALS-			3		0	0	0	0	3	0.0		20.274		0.05	0.24	0.00

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	INJURY ACCIDENTS K	A	B	C	PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	NODE	CRITI RATE	CRF
	01896	07067	LILY BAY RD	1	0	0.03	0	0	0	0	0	0.0	0.00062		0.00		637.27	0.00
	01287	01896		1	1	0.07	0	0	0	0	1	0.0	0.00110		303.03		567.92	0.00
	01287	01288		1	1	0.10	0	0	0	1	0	100.0	0.00132		252.53		544.18	0.00
	01288	01291		1	0	0.05	0	0	0	0	0	0.0	0.00063		0.00		635.57	0.00
	01291	01295		1	0	0.05	0	0	0	0	0	0.0	0.00058		0.00		644.12	0.00
	01295	01297		1	0	0.06	0	0	0	0	0	0.0	0.00067		0.00		628.84	0.00
	01297	01299		1	0	0.08	0	0	0	0	0	0.0	0.00087		0.00		597.83	0.00
	01299	01301		1	1	0.04	0	0	1	0	0	100.0	0.00042		793.65		670.26	1.18
	01301	01303		1	0	0.24	0	0	0	0	0	0.0	0.00245		0.00		465.90	0.00
	01303	01884		1	0	0.07	0	0	0	0	0	0.0	0.00068		0.00		627.19	0.00
	01310	01884		1	0	0.01	0	0	0	0	0	0.0	0.00009		0.00		270.93	0.00
	01310	01311		1	0	0.05	0	0	0	0	0	0.0	0.00044		0.00		667.38	0.00
	01311	07226		1	0	0.17	0	0	0	0	0	0.0	0.00142		0.00		534.67	0.00
	01098	07226		1	0	0.07	0	0	0	0	0	0.0	0.00052		0.00		654.42	0.00
	01098	01118		1	16	4.54	0	1	2	3	10	37.5	0.02834		188.19		262.09	0.00
21037	01118	01765		1	1	0.36	0	0	0	0	1	0.0	0.00139		239.81		537.45	0.00
	01765	01768		1	0	0.38	0	0	0	0	0	0.0	0.00146		0.00		531.06	0.00
	01768	01769		1	0	0.25	0	0	0	0	0	0.0	0.00091		0.00		592.20	0.00
	01769	07298		1	0	0.31	0	0	0	0	0	0.0	0.00096		0.00		585.42	0.00
	01773	07298		1	0	1.85	0	0	0	0	0	0.0	0.00594		0.00		371.09	0.00
	01773	01781		1	2	0.74	0	0	0	0	2	0.0	0.00170		392.16		511.42	0.00
	01781	01813		1	0	0.54	0	0	0	0	0	0.0	0.00120		0.00		556.61	0.00
21815	01813	01838		1	0	0.25	0	0	0	0	0	0.0	0.00054		0.00		651.00	0.00
21037	01783	01838		1	0	0.32	0	0	0	0	0	0.0	0.00068		0.00		627.19	0.00
21815	01783	07212	00306	1	0	0.71	0	0	0	0	0	0.0	0.00148		0.00		529.30	0.00
	07212	07240		1	0	0.36	0	0	0	0	0	0.0	0.00072		0.00		620.66	0.00
	07210	07240		1	1	0.18	0	0	0	0	1	0.0	0.00035		952.38		677.74	1.41
	07210	07242		1	0	0.11	0	0	0	0	0	0.0	0.00021		0.00		650.32	0.00
	07242	07244		1	3	0.52	0	0	1	0	2	33.3	0.00095		1052.63		586.75	1.79
	01814	07244		1	0	1.57	0	0	0	0	0	0.0	0.00258		0.00		459.72	0.00
	01784	01814		1	5	3.17	0	0	1	1	3	40.0	0.00474		351.62		392.88	0.00
			LINK SUBTOTALS-		31	17.25	0	1	5	5	20	35.5	0.06596		156.66		227.30	0.00
			GRAND TOTALS-		34	17.25	0	1	5	5	23	32.3	0.06596	20.274	171.82		268.84	0.64

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

	---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	UNKNOWN	TOTAL	
SUNDAY	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	4	S
MONDAY	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	4	M
TUESDAY	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	4	T
WEDNESDAY	0	0	1	0	0	0	1	1	0	1	2	0	0	1	0	0	0	0	2	0	0	0	0	0	0	9	W
THURSDAY	1	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4	T
FRIDAY	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	F
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	1	0	1	0	0	0	1	0	0	6	S
UNKNOWN	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	U
TOTAL	2	0	1	0	0	0	2	2	2	4	2	2	4	1	3	1	1	0	4	0	1	1	1	0	0	34	T

	YEAR			
	TOTAL	2002	2003	2004
JANUARY	4	0	3	1
FEBRUARY	1	0	0	1
MARCH	1	1	0	0
APRIL	1	1	0	0
MAY	2	0	1	1
JUNE	5	3	2	0
JULY	4	1	2	1
AUGUST	4	1	1	2
SEPTEMBER	3	0	0	3
OCTOBER	4	0	1	3
NOVEMBER	5	2	2	1
DECEMBER	0	0	0	0
UNKNOWN	0	0	0	0
TOTAL	34	9	12	13

TYPE OF UNIT

01-2 DOOR	5	10-BOBTAIL	0
02-4 DOOR	8	20-2ADT	1
03-CONVERTBLE	0	30-3ASU	1
04-STAT WGN	3	40-4ASU	0
05-VAN/CAMPER	2	21-2ASA	0
06-PICKUP TRK	17	22-2ATA	0
12-SCHOOL BUS	0	31-3ASA	0
13-MOTOR HOME	0	32-3ATA	0
14-MOTORCYCLE	0	33-3ATR	1
15-MOPED	0	42-4ATA	0
16-MOTOR BIKE	0	25-2AT1A2ATR	0
17-BICYCLE	0	35-3AT1A2ATR	1
18-SNOWMOBILE	0	36-3AT2A2ATR	0
19-PEDESTRIAN	0	50-OTHER	0
23-ATV	0	81-2AX CM BUS	0
07-SUV	8	82-3AX CM BUS	0
99-UNK/OTH	0	98-FARM/TRAC	1
TOTAL	48		

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

TYPE OF LOCATION

ACCIDENT TYPE	ST ROAD	CURV ROAD	**AT INTERSECTION** 3-LEG	4-LEG	5-LEG	DRIVE WAYS	BRIDGE	INTER CHANGE	UN KNOWN	TOTAL
OBJECT IN ROAD	0	0	0	0	0	0	0	0	0	0
REAR END/SIDESWIPE	2	0	1	0	0	3	0	0	0	6
HEAD-ON/SIDESWIPE	0	0	0	0	0	0	0	0	0	0
INTERSECTION MOVEMENT	0	0	1	0	0	2	0	0	0	3
PEDESTRIANS	0	0	0	0	0	0	0	0	0	0
TRAIN	0	0	0	0	0	0	0	0	0	0
RAN OFF ROAD	9	3	0	1	0	1	0	0	0	14
ANIMAL	0	0	0	0	0	0	0	0	0	0
DEER	1	0	0	0	0	0	0	0	0	1
MOOSE	6	0	0	0	0	0	0	0	0	6
BEAR	0	0	0	0	0	0	0	0	0	0
SLED/BIKE	0	0	0	0	0	0	0	0	0	0
OTHER	4	0	0	0	0	0	0	0	0	4
NON COLLISION	0	0	0	0	0	0	0	0	0	0
UNKNOWN	0	0	0	0	0	0	0	0	0	0
TOTAL	22	3	2	1	0	6	0	0	0	34

INJURY DATA

SEV CODE	INJURY ACCIDENTS	NUMBER OF INJURIES
K	0	0
A	1	2
B	5	5
C	5	6
PD	23	
TOTAL	34	13

FIXED OBJECT STRUCK

CONSTRUCTION BARRICADES	1
TRAFFIC SIGNAL	0
R/R CROSSING	0
LIGHT POLE	0
UTILITY POLE	2
SIGN POST	0
MAIL BOXES	1
OTHER POLES/POSTS	0
FIRE PLUG/PARK METER	1
TREE/SHRUBBERY	3
CRASH CUSHION	0
MEDIAN SAFETY BARRIER	0
BRIDGE PIERS	0
OTHER GUARDRAILS	0
FENCING NOT BARRIER	0
CULVERT HEADWALL	0
EMBANKMENT/DITCH	7
BUILDING WALL	0
ROCK OUTCROPPING/LEDGE	1
OTHER	1
UNKNOWN	0
TOTAL	17

TRAFFIC CONTROL DEVICES

TRAFFIC SIG STOP/GO	0
TRAFFIC SIG FLASHING	0
OVERHEAD FLASHERS	0
ALL WAY STOP	0
STOP SIGN/OTHER	2
YIELD SIGN	0
CURVE SIGN	0
OFFICER /SCHOOL PAT	2
SCHOOL BUS STOP ARM	0
SCHOOL ZONE SIGN	0
R/R CROSSING DEVICE	0
NO PASSING ZONE	0
NONE	30
OTHER	0
UNKNOWN	0
TOTAL	34

ROAD CHARACTER

LEVEL STRAIGHT	16
LEVEL CURVED	2
ON GRADE STRAIGHT	13
ON GRADE CURVED	3
TOP OF HILL STRAIGHT	0
TOP OF HILL CURVED	0
BOTTOM OF HILL STRAIGHT	0
BOTTOM OF HILL CURVED	0
UNKNOWN	0
TOTAL	34

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

APPARENT CONTRIBUTING FACTOR	DR 1	DR 2	DR 3	DR 4	DR 5	OTHER	TOTAL
HUMAN FACTORS							
NO INPROPER DRIVING	16	9	0	0	0	0	25
FAIL TO YIELD R-WAY	3	1	0	0	0	0	4
ILLEGAL UNSAFE SPEED	3	0	0	0	0	0	3
FOLLOW TOO CLOSE	1	0	0	0	0	0	1
DISREGARD TRAF CONTROL	1	0	0	0	0	0	1
DRIVING LEFT OF CENTER	0	0	0	0	0	0	0
IMPROPER PASSING	1	0	0	0	0	0	1
IMPROPER LANE CHANGE	0	0	0	0	0	0	0
IMPROPER START/STOP	0	0	0	0	0	0	0
IMPROPER TURN	0	0	0	0	0	0	0
UNSAFE BACKING	0	2	0	0	0	0	2
NO PROPER SIGNAL	0	0	0	0	0	0	0
IMPEDING TRAFFIC	0	0	0	0	0	0	0
DRIVER INATTENTION	3	0	0	0	0	0	3
DRIVER INEXPERIENCE	1	0	0	0	0	0	1
PEDESTRIAN VIOLATION	0	0	0	0	0	0	0
PHYSICAL IMPAIRMENT	3	0	0	0	0	0	3
VISION OBSCURED GLASS	0	0	0	0	0	0	0
VISION OBSCURED LIGHT	0	0	0	0	0	0	0
VISION OBSCURED OTHER	0	1	0	0	0	0	1
OTHER HUMAN FACTOR	2	0	0	0	0	0	2
HIT & RUN	0	0	0	0	0	0	0
VEHICULAR FACTORS							
DEFECTIVE BRAKES	0	0	0	0	0	0	0
DEFECTIVE TIRE	0	0	0	0	0	0	0
DEFECTIVE LIGHTS	0	0	0	0	0	0	0
DEFECTIVE SUSPENSION	0	0	0	0	0	0	0
DEFECTIVE STEERING	0	0	0	0	0	0	0
OTHER VEHICLE DEFECT	0	1	0	0	0	0	1
UNKNOWN	0	0	0	0	0	0	0
TOTAL	34	14	0	0	0	0	48

APPARENT PHYSICAL CONDITION	DR 1	DR 2	DR 3	DR 4	DR 5	OTHER	TOTAL
NORMAL	28	14	0	0	0	0	42
UNDER THE INFLUENCE	3	0	0	0	0	0	3
DRINKING	0	0	0	0	0	0	0
USING DRUGS	0	0	0	0	0	0	0
ASLEEP	2	0	0	0	0	0	2
FATIGUED	0	0	0	0	0	0	0
ILL	0	0	0	0	0	0	0
HANDICAPPED	0	0	0	0	0	0	0
OTHER/UNKNOWN	1	0	0	0	0	0	1
TOTAL	34	14	0	0	0	0	48

AGE	TYPE OF UNIT: DRIVER	BIKE	SNOW SLED	PED	ATV	TOTAL
9-UNDER	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	6	0	0	0	0	6
20-24	3	0	0	0	0	3
25-29	3	0	0	0	0	3
30-39	5	0	0	0	0	5
40-49	13	0	0	0	0	13
50-59	11	0	0	0	0	11
60-69	4	0	0	0	0	4
70-79	2	0	0	0	0	2
80-OVER	1	0	0	0	0	1
UNKNOWN	0	0	0	0	0	0
TOTAL	48	0	0	0	0	48

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MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

ROAD SURFACE

WEATHER	LIGHT CONDITION	DRY	WET	SNOW SAND	ICE SAND	MUD	DEBRIS	OIL	SNOW	ICE	OTHER	TOTAL
CLEAR	DAWN	0	0	2	0	0	0	0	0	0	0	2
	DAYLIGHT	13	0	0	0	0	0	0	1	0	0	14
(18)	DUSK	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	2	0	0	0	0	0	0	0	0	0	2
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
RAIN	DAWN	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	0	2	0	0	0	0	0	0	0	0	2
(4)	DUSK	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	2	0	0	0	0	0	0	0	0	2
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
SNOW	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
SLEET/HAIL	DAWN	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	0	0	0	0	0	0	0	0	1	0	1
(2)	DUSK	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	1	0	1
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
FOG/SMOG	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0

LIGHT	
DAWN	2
DAYLIGHT	24
DUSK	0
DARK-LIGHTS	0
DARK NO LIGHTS	8
DARK LIGHTS OFF	0
OTHER	0
UNKNOWN	0
TOTAL	34

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MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

WEATHER	LIGHT CONDITION	ROAD SURFACE: DRY	WET	SNOW SAND	ICE SAND	MUD	DEBRIS	OIL	SNOW	ICE	OTHER	TOTAL
CROSS WINDS	DAWN	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	0	0	0	1	0	0	0	1	0	0	2
(2)	DUSK	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
SAND/DUST	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
CLOUDY	DAWN	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	5	0	0	0	0	0	0	0	0	0	5
(8)	DUSK	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	3	0	0	0	0	0	0	0	0	0	3
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
OTHER	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
ROAD SURFACE TOTALS		23	4	2	1	0	0	0	2	2	0	34

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MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL

STUDY PERIOD: FROM MONTH 01 YEAR 2002 TO MONTH 12 YEAR 2004

INPUT COMMENTS

REQUEST: LILY BAY RD
TOWN: GREENVILLE - LILY BAY TOWNSHIP

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	LAST NODE	EXCLUDE LAST	DISTANCE
00306	21	07067	1	0.00	01896	01784	0	0.00

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MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

LINK DETAIL

TOWN#	STREET NAME OR ROUTE #	LOW NODE	HIGH NODE	DISTANCE	TOTAL ACCIDENTS	INJURY ACCIDENTS K	A	B	C	PD	ACCIDENT REPORT NUMBERS		
	LILY BAY RD	01896	07067	0.0	0	0	0	0	0	0			
		01287	01896	0.1	1	0	0	0	0	1	200419248		
		01287	01288	0.1	1	0	0	0	1	0	200331637		
		01299	01301	0.1	1	0	0	1	0	0	200428365		
		01098	01118	0.1	3	0	1	0	0	2	200321986	200423212	200427193
				0.2	1	0	0	0	1	0	200315880		
				0.4	1	0	0	1	0	0	200404664		
				0.5	1	0	0	0	0	1	200206401		
				0.6	1	0	0	0	0	1	200300054		
				0.8	2	0	0	0	0	2	200403418	200428728	
				1.1	1	0	0	0	1	0	200333672		
				1.2	1	0	0	0	0	1	200439652		
				1.7	1	0	0	0	0	1	200217057		
				2.4	1	0	0	0	0	1	200215109		
				2.5	1	0	0	0	1	0	200321985		
				2.6	1	0	0	0	0	1	200428364		
				3.0	1	0	0	1	0	0	200237471		
21037		01118	01765	0.1	1	0	0	0	0	1	200425279		
		01773	01781	0.4	1	0	0	0	0	1	200334270		
21815	00306			0.7	1	0	0	0	0	1	200219041		
		07210	07240	0.1	1	0	0	0	0	1	200300689		
		07242	07244	0.2	1	0	0	0	0	1	200224167		
				0.4	1	0	0	1	0	0	200202871		
				0.5	1	0	0	0	0	1	200414679		
		01784	01814	0.7	1	0	0	0	0	1	200317094		
				0.9	1	0	0	1	0	0	200425410		
				1.9	1	0	0	0	1	0	200323282		
				2.5	1	0	0	0	0	1	200213369		
				2.8	1	0	0	0	0	1	200424243		
				TOTALS-	31	0	1	5	5	20			

MAR 2,2006 AT 08:12

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MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL
STUDY PERIOD: FROM MONTH 01 YEAR 2002 TO MONTH 12 YEAR 2004

INPUT COMMENTS

REQUEST: RTE 6/15
TOWN: GUILFORD - JACKMAN

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	LAST NODE	EXCLUDE LAST	DISTANCE
0006X	21	07042	0	0.00	07043	06083	0	0.00
	25	06230	0	0.00	06229	06190	0	0.00

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MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	INJURY ACCIDENTS K	A	B	C	PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	NODE	CRITI RATE	CRF
21	07042		TL,ABBOT-GUILFORD	1	0		0	0	0	0	0	0.0		1.299		0.00	0.47	0.00
21	07043		ABB,RTE 6,GALES RD	1	0		0	0	0	0	0	0.0		1.274		0.00	0.47	0.00
21	08962		ABB,RTE 6,MONUMENT RD	1	1		0	0	1	0	0	100.0		1.266		0.26	0.47	0.00
21	07044		ABB,RTE 6,RTE 16	1	0		0	0	0	0	0	0.0		1.498		0.00	0.46	0.00
21	08941		ABB,RTE 6,TRANSFER STA	1	0		0	0	0	0	0	0.0		1.305		0.00	0.47	0.00
21	07045		ABB,RTE 6,POND RD	1	1		0	0	1	0	0	100.0		1.277		0.26	0.47	0.00
21	07046		ABB,RT 6,HOWARD SDG,PRI	1	0		0	0	0	0	0	0.0		1.118		0.00	0.49	0.00
21	01875		ABB,RTE 6,PRIDES LOOP	1	0		0	0	0	0	0	0.0		1.003		0.00	0.50	0.00
21	07047		ABB,RTE 6,MONSON JCT RD	1	0		0	0	0	0	0	0.0		0.993		0.00	0.50	0.00
21	07048		ABB,RTE 6,MOOSEHORN RD	1	0		0	0	0	0	0	0.0		0.976		0.00	0.50	0.00
21	07049		TL,MONSON-ABBOT	1	0		0	0	0	0	0	0.0		0.941		0.00	0.51	0.00
21	08999		MON,RTE 6,1.80 BK BLANC	1	0		0	0	0	0	0	0.0		0.932		0.00	0.51	0.00
21	07050		MON,RTE 6,BLANCHARD RD	1	0		0	0	0	0	0	0.0		1.087		0.00	0.49	0.00
21	07051		MON,RTE 6,NO.GUILFORD R	1	0		0	0	0	0	0	0.0		1.443		0.00	0.46	0.00
21	08961		MON,RTE 6,WATER ST	1	0		0	0	0	0	0	0.0		1.452		0.00	0.46	0.00
21	01125		MON,RTE 6,HEBRON ST	1	0		0	0	0	0	0	0.0		1.268		0.00	0.47	0.00
21	07052		MON,RTE.6,BRAY RD.	1	2		0	0	0	1	1	50.0		1.253		0.53	0.48	1.10
21	08943		MON,RTE 6,CENTER ST,HOM	1	0		0	0	0	0	0	0.0		1.144		0.00	0.49	0.00
21	07053		MON,RTE 6,ELLIOTSVILLE	1	1		0	0	0	0	1	0.0		1.084		0.31	0.49	0.00
21	07054		MON,RTE 6,PW 496	1	0		0	0	0	0	0	0.0		0.958		0.00	0.50	0.00
21	08959		SHIR,RTE 6+15,RTE 15 LO	1	0		0	0	0	0	0	0.0		0.951		0.00	0.50	0.00
21	07055		MON,RTE.6,OLD RTE.15	1	0		0	0	0	0	0	0.0		0.947		0.00	0.50	0.00
21	07056		MON,RTE.6,1.04 BK.OLD R	1	0		0	0	0	0	0	0.0		0.940		0.00	0.51	0.00
21	07057		TL SHIRLEY-MONSON,RTE 6	1	0		0	0	0	0	0	0.0		0.932		0.00	0.51	0.00
21	07058		SHIR,RTE 6+15,LWR SHIRL	1	0		0	0	0	0	0	0.0		0.972		0.00	0.50	0.00
21	07059		SHIR,RTE 6+15,UPR SHIRL	1	1		0	0	0	1	0	100.0		0.983		0.34	0.50	0.00
21	08958		SHIR,RT 6,OLD RT 15 (SO	1	1		0	0	0	1	0	100.0		0.967		0.34	0.50	0.00
21	08957		SHIR,RTE 6+15,RTE 15 LO	1	0		0	0	0	0	0	0.0		0.980		0.00	0.50	0.00
21	07060		TL GREENVILLE-SHIRLEY,R	1	0		0	0	0	0	0	0.0		1.003		0.00	0.50	0.00
21	08956		GRVL,RTE.6,OLD RTE.15	1	0		0	0	0	0	0	0.0		1.054		0.00	0.49	0.00
21	07061		GRVL,RTE.6,OLD RTE.15	1	0		0	0	0	0	0	0.0		1.113		0.00	0.49	0.00
21	07062		GRVL,RTE.6,MARSH FARM R	1	0		0	0	0	0	0	0.0		1.425		0.00	0.46	0.00
21	07063		GRVL,RTE.6,RR#847760	1	0		0	0	0	0	0	0.0		1.755		0.00	0.44	0.00
21	08942		GRVL,MAIN,SHERWOOD ST.	1	0		0	0	0	0	0	0.0		1.925		0.00	0.43	0.00
21	07064		GRVL,MAIN,S.MAIN,LAKEVI	1	0		0	0	0	0	0	0.0		2.310		0.00	0.41	0.00
21	07065		GRVL,MAIN,WASHINGTON ST	1	0		0	0	0	0	0	0.0		2.078		0.00	0.42	0.00
21	07066		GRVL,MAIN,MINDEN ST.	1	0		0	0	0	0	0	0.0		2.270		0.00	0.41	0.00
21	07067		GRVL,RTE 6,LILY BAY RD	1	1		0	0	0	0	1	0.0		3.221		0.10	0.38	0.00
21	06059		GRVL,RTE.6,RR#847781	1	0		0	0	0	0	0	0.0		2.109		0.00	0.42	0.00
21	06060		GRVL,WEST,LAKEVIEW ST.	1	1		0	0	0	0	1	0.0		2.500		0.13	0.40	0.00
21	01882		GRVL,WEST ST,PRITHAN PA	1	1		0	0	0	0	1	0.0		2.095		0.16	0.42	0.00
21	06061		GRVL,WEST,SCHOOL ST,OLI	1	0		0	0	0	0	0	0.0		1.978		0.00	0.43	0.00
21	06062		GRVL,WEST,LEWIS ST.	1	0		0	0	0	0	0	0.0		1.892		0.00	0.43	0.00
21	06063		GRVL,SPRUCE,WEST ST.	1	0		0	0	0	0	0	0.0		1.942		0.00	0.43	0.00
21	06986		GRVL,WEST,PINE ST.	1	1		0	0	0	1	0	100.0		1.878		0.18	0.43	0.00
21	06985		GRVL,WEST,CRAFTS ST.	1	0		0	0	0	0	0	0.0		1.881		0.00	0.43	0.00

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MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	INJURY ACCIDENTS K	A	B	C	PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	NODE	CRITI RATE	CRF
21	06064		GRVL,WEST,MURRAY ST.	1	1		0	0	0	0	1	0.0		1.806		0.18	0.44	0.00
21	06065		GRVL,WEST,DOAN,HOSPITAL	1	0		0	0	0	0	0	0.0		1.834		0.00	0.44	0.00
21	06066		GRVL,WEST,HOSPITAL ST.	1	0		0	0	0	0	0	0.0		1.775		0.00	0.44	0.00
21	06067		GRVL,WEST,GREEN ST.	1	0		0	0	0	0	0	0.0		1.730		0.00	0.44	0.00
21	06068		GRVL,WEST,DORR ST.	1	0		0	0	0	0	0	0.0		1.684		0.00	0.44	0.00
21	06069		GRVL,WEST,WIGGINS ST.	1	0		0	0	0	0	0	0.0		1.653		0.00	0.45	0.00
21	06070		GRVL,WEST,BIRCH ST.	1	0		0	0	0	0	0	0.0		1.613		0.00	0.45	0.00
21	06071		GRVL,WEST,MAPLE ST.	1	0		0	0	0	0	0	0.0		1.558		0.00	0.45	0.00
21	06072		GRVL,WEST,BEECH ST.	1	1		0	0	1	0	0	100.0		1.494		0.22	0.46	0.00
21	06073		TL,GREENVILLE-LITTLE SQ	1	0		0	0	0	0	0	0.0		1.257		0.00	0.48	0.00
21	01250		LIL.SQ,RTE 6,RD 1502	1	0		0	0	0	0	0	0.0		0.779		0.00	0.52	0.00
21	07207		LIL.SQ,RTE.6,TOWER RD.	1	0		0	0	0	0	0	0.0		0.728		0.00	0.53	0.00
21	06074		TL,LITTLE SQUAW TWP-COV	1	0		0	0	0	0	0	0.0		0.691		0.00	0.53	0.00
21	06075		TL,COVE PT.TWP-LITTLE S	1	0		0	0	0	0	0	0.0		0.646		0.00	0.54	0.00
21	08955		LIL.SQ,RTE.6,HARTFORD P	1	0		0	0	0	0	0	0.0		0.609		0.00	0.54	0.00
21	06076		TL,BIG SQUAW-LITTLE SQU	1	0		0	0	0	0	0	0.0		0.520		0.00	0.55	0.00
21	06077		BIG SQ.TWP,RTE.6,15,RD.	1	0		0	0	0	0	0	0.0		0.512		0.00	0.55	0.00
21	06078		BIG SQ.TWP,RTE.6,BR.589	1	0		0	0	0	0	0	0.0		0.498		0.00	0.56	0.00
21	01762		BIG SQ.TWP,RTE.6,15,RD.	1	0		0	0	0	0	0	0.0		0.489		0.00	0.56	0.00
21	07237		BIGSQU,RT6+15,OLD RT 15	1	0		0	0	0	0	0	0.0		0.471		0.00	0.56	0.00
21	06079		BIG SQ.TWP,RTE.6,RD.212	1	0		0	0	0	0	0	0.0		0.423		0.00	0.56	0.00
21	06080		BIG.SQ,6X,.25 BK.RD.224	1	0		0	0	0	0	0	0.0		0.416		0.00	0.56	0.00
21	06081		BIG SQ,6X,1.47 BK.RD.21	1	0		0	0	0	0	0	0.0		0.425		0.00	0.56	0.00
21	06082		BIG SQ,RTE.6,RD.2121 PW	1	0		0	0	0	0	0	0.0		0.434		0.00	0.56	0.00
21	06083		TL,BIG SQUAW TWP-SAPLIN	1	0		0	0	0	0	0	0.0		0.219		0.00	0.51	0.00
25	06230		TL,SAPLING-BIG SQUAW,CL	1	0		0	0	0	0	0	0.0		0.281		0.00	0.55	0.00
25	06229		SAP,RT 6,IR 740	1	0		0	0	0	0	0	0.0		0.504		0.00	0.55	0.00
25	06228		SAP,RT 6,BR # 3256	1	0		0	0	0	0	0	0.0		0.445		0.00	0.56	0.00
25	06227		TL MIS.SAP.GORE-SAPLING	1	0		0	0	0	0	0	0.0		0.443		0.00	0.56	0.00
25	06226		MSG,RTE 6,.23S/O TAUNT.	1	0		0	0	0	0	0	0.0		0.440		0.00	0.56	0.00
25	06225		TL MIS.SAP.GORE-TAUNT.&	1	0		0	0	0	0	0	0.0		0.436		0.00	0.56	0.00
25	06224		TAU RAY,RTE 6,PW 1602	1	0		0	0	0	0	0	0.0		0.432		0.00	0.56	0.00
25	06223		TAU RAY,RTE 6,PW 3113	1	0		0	0	0	0	0	0.0		0.429		0.00	0.56	0.00
25	06222		TA&RA,RTE 6,TRANS.STA.,	1	0		0	0	0	0	0	0.0		0.440		0.00	0.56	0.00
25	06220		TL ROCKWOOD-TAUNTON,RT	1	0		0	0	0	0	0	0.0		0.518		0.00	0.55	0.00
25	06219		RKWD,RTE 6,ROCKWOOD LOO	1	0		0	0	0	0	0	0.0		0.675		0.00	0.54	0.00
25	07343		RKWD,ROCKWOOD LOOP,RTE	1	0		0	0	0	0	0	0.0		0.727		0.00	0.53	0.00
25	06218		ROC,RT 6,.49 AHD IR 140	1	0		0	0	0	0	0	0.0		0.655		0.00	0.54	0.00
25	06217		ROC,RT 6,.17 AHD IR 140	1	0		0	0	0	0	0	0.0		0.640		0.00	0.54	0.00
25	06216		ROC,HARRIMAN,RT 6	1	0		0	0	0	0	0	0.0		0.633		0.00	0.54	0.00
25	02220		ROC,RT 6,TESSIER	1	0		0	0	0	0	0	0.0		0.642		0.00	0.54	0.00
25	02218		ROC,RT 6,TESSIER	1	0		0	0	0	0	0	0.0		0.642		0.00	0.54	0.00
25	06215		ROC,RT 6,PITTSTON FARM	1	0		0	0	0	0	0	0.0		0.558		0.00	0.55	0.00
25	06214		TL,ROCKWOOD-TAUNTON,RT	1	0		0	0	0	0	0	0.0		0.195		0.00	0.49	0.00
25	06213		TAU RAY,RTE 6,PW 1858	1	0		0	0	0	0	0	0.0		0.249		0.00	0.54	0.00
25	06211		TAU RAY,RTE 6,PW 1857	1	0		0	0	0	0	0	0.0		0.247		0.00	0.53	0.00

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ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	INJURY ACCIDENTS K	A	B	C	PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	NODE	CRITI RATE	CRF
25	06210	TAU RAY,RTE 6,PW 1855		1	0		0	0	0	0	0	0.0		0.190		0.00	0.48	0.00
25	06209	TAU RAY,RTE 6,PW 1719		1	0		0	0	0	0	0	0.0		0.188		0.00	0.48	0.00
25	06208	TAU RAY,RTE 6,.51 BK PW		1	0		0	0	0	0	0	0.0		0.184		0.00	0.47	0.00
25	06207	TAU RAY,RTE 6,RR 847792		1	0		0	0	0	0	0	0.0		0.182		0.00	0.47	0.00
25	06206	TAU.RAY.,TERRATINE RD,E		1	0		0	0	0	0	0	0.0		0.181		0.00	0.47	0.00
25	06205	TL,TAUTON&RAYNHAM-SANDW		1	0		0	0	0	0	0	0.0		0.177		0.00	0.46	0.00
25	06204	SNDW,RT 6,1.12 BK TO TL		1	0		0	0	0	0	0	0.0		0.175		0.00	0.46	0.00
25	06203	TL SAND.ACC-MIS.SAP.GOR		1	0		0	0	0	0	0	0.0		0.175		0.00	0.46	0.00
25	06202	TL SAND.ACC-MIS.SAP.GOR		1	0		0	0	0	0	0	0.0		0.173		0.00	0.46	0.00
25	06201	SNDW,RT 6,.62 AHD TO 62		1	0		0	0	0	0	0	0.0		0.171		0.00	0.45	0.00
25	06200	SNDW,RT 6,.62 BK TO 620		1	0		0	0	0	0	0	0.0		0.169		0.00	0.45	0.00
25	06199	SNDW,RT 6,.42 AHD TO 61		1	0		0	0	0	0	0	0.0		0.166		0.00	0.44	0.00
25	06198	SNDW,RT 6,.42 BK TO 619		1	0		0	0	0	0	0	0.0		0.164		0.00	0.44	0.00
25	06999	SNDW,RT 6,1.02 AHD TO 6		1	0		0	0	0	0	0	0.0		0.162		0.00	0.43	0.00
25	06197	SNDW,RT 6,.61 AHD TO TL		1	0		0	0	0	0	0	0.0		0.160		0.00	0.43	0.00
25	06196	TL,SANDWICH ACD.-LONG P		1	0		0	0	0	0	0	0.0		0.160		0.00	0.43	0.00
25	06195	LON,RT 6,1.83 AHD TO 61		1	0		0	0	0	0	0	0.0		0.173		0.00	0.46	0.00
25	06194	LON,RT 6,1.60 AHD TO 61		1	0		0	0	0	0	0	0.0		0.197		0.00	0.49	0.00
25	06193	LON,RT 6,0.79 AHD TO 61		1	0		0	0	0	0	0	0.0		0.219		0.00	0.51	0.00
25	06192	LON,RT 6 .74 AHD TO 619		1	0		0	0	0	0	0	0.0		0.241		0.00	0.53	0.00
25	06191	LON,RT 6,0.74 BK TO 619		1	0		0	0	0	0	0	0.0		0.263		0.00	0.54	0.00
25	06190	TL.LONG PD-JACKMAN,RT 1		1	0		0	0	0	0	0	0.0		0.284		0.00	0.55	0.00
		NODE SUBTOTALS-			13		0	0	3	4	6	53.8		104.321		0.04	0.18	0.00

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21010	07042	07043	RTE 6	1	6	1.58	0	1	0	0	5	16.7	0.01915		104.44		233.34	0.00
	07043	08962		1	5	1.20	0	0	0	2	3	40.0	0.01529		109.00		245.34	0.00
	07044	08962		1	1	0.15	0	0	0	0	1	0.0	0.00178		187.27		420.06	0.00
	07044	08941		1	1	0.25	0	0	0	1	0	100.0	0.00330		101.01		359.41	0.00
	07045	08941		1	2	0.73	0	0	0	0	2	0.0	0.00933		71.45		275.73	0.00
	07045	07046		1	1	0.40	0	0	0	0	1	0.0	0.00438		76.10		333.98	0.00
	01875	07046		1	0	0.39	0	0	0	0	0	0.0	0.00393		0.00		343.50	0.00
✓	01875	07047		1	4	0.34	0	0	0	0	4	0.0	0.00336		396.83		357.74	1.11
	07047	07048		1	4	1.31	0	0	0	0	4	0.0	0.01277		104.41		255.75	0.00
	07048	07049		1	1	0.40	0	0	0	0	1	0.0	0.00378		88.18		346.98	0.00
21150	07049	08999	RTE 6+15	1	9	1.57	0	1	1	0	7	22.2	0.01473		203.67		247.44	0.00
	07050	08999		1	7	1.80	0	1	2	3	1	85.7	0.01669		139.80		240.54	0.00
	07050	07051		1	0	0.29	0	0	0	0	0	0.0	0.00315		0.00		363.76	0.00
	07051	08961		1	1	0.05	0	0	0	1	0	100.0	0.00072		462.96		505.88	0.00
	01125	08961		1	0	0.05	0	0	0	0	0	0.0	0.00063		0.00		515.24	0.00
	01125	07052		1	1	0.04	1	0	0	0	0	100.0	0.00050		666.67		526.92	1.27
	07052	08943		1	0	0.20	0	0	0	0	0	0.0	0.00233		0.00		392.94	0.00
	07053	08943		1	1	0.30	0	0	0	0	1	0.0	0.00325		102.56		360.83	0.00
	07053	07054		1	1	0.74	0	0	0	1	0	100.0	0.00716		46.55		294.47	0.00
	07054	08959		1	0	1.09	0	0	0	0	0	0.0	0.01034		0.00		268.93	0.00
	07055	08959		1	0	0.29	0	0	0	0	0	0.0	0.00273		0.00		377.41	0.00
	07055	07056		1	1	1.03	0	0	0	0	1	0.0	0.00974		34.22		272.85	0.00
✓	07056	07057		1	13	1.49	0	1	2	3	7	46.2	0.01392		311.30		250.67	1.24
21190	07057	07058	GREENVILLE RD	1	4	1.54	0	0	0	0	4	0.0	0.01433		93.04		249.00	0.00
	07058	07059		1	6	1.67	0	0	2	1	3	50.0	0.01524		131.23		245.52	0.00
✓	07059	08958		1	6	0.64	1	0	1	0	4	33.3	0.00612		326.80		306.43	1.07
	08957	08958		1	3	0.32	0	0	0	0	3	0.0	0.00308		324.68		365.88	0.00
	07060	08957		1	1	0.81	0	0	0	0	1	0.0	0.00798		41.77		286.58	0.00
21090	07060	08956	MOOSEHEAD LK RD	1	3	0.92	0	0	1	1	1	66.7	0.00940		106.38		275.23	0.00
	07061	08956		1	2	0.73	0	0	1	0	1	50.0	0.00783		85.14		287.94	0.00
	07061	07062		1	2	0.49	0	0	0	0	2	0.0	0.00554		120.34		314.33	0.00
	07062	07063		1	7	1.48	0	0	1	0	6	14.3	0.02528		92.30		220.01	0.00
	07063	08942		1	1	0.17	0	0	0	0	1	0.0	0.00307		108.58		366.18	0.00
	07064	08942		1	0	0.10	0	0	0	0	0	0.0	0.00198		0.00		409.26	0.00
	07064	07065		1	1	0.07	0	0	0	0	1	0.0	0.00128		260.42		453.54	0.00
	07065	07066		1	0	0.09	0	0	0	0	0	0.0	0.00193		0.00		411.85	0.00
	07066	07067		1	0	0.03	0	0	0	0	0	0.0	0.00067		0.00		511.12	0.00
	06059	07067	0006X	1	1	0.03	0	0	1	0	0	100.0	0.00064		520.83		633.88	0.00
	06059	06060	WEST ST	1	2	0.09	0	0	0	0	2	0.0	0.00189		352.73		497.94	0.00
	01882	06060		1	0	0.27	0	0	0	0	0	0.0	0.00578		0.00		373.64	0.00
	01882	06061		1	0	0.12	0	0	0	0	0	0.0	0.00239		0.00		468.89	0.00
	06061	06062		1	0	0.05	0	0	0	0	0	0.0	0.00095		0.00		586.75	0.00
	06062	06063	WEST ST.	1	0	0.10	0	0	0	0	0	0.0	0.00185		0.00		500.65	0.00
	06063	06986		1	0	0.12	0	0	0	0	0	0.0	0.00226		0.00		475.70	0.00
	06985	06986		1	0	0.02	0	0	0	0	0	0.0	0.00037		0.00		676.17	0.00
	06064	06985		1	0	0.07	0	0	0	0	0	0.0	0.00126		0.00		550.25	0.00

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	06064	06065		1	0	0.08	0	0	0	0	0	0.0	0.00143		0.00		533.76	0.00
	06065	06066		1	0	0.03	0	0	0	0	0	0.0	0.00053		0.00		652.71	0.00
	06066	06067		1	0	0.04	0	0	0	0	0	0.0	0.00069		0.00		625.54	0.00
	06067	06068		1	1	0.08	0	0	0	1	0	100.0	0.00135		246.91		541.25	0.00
	06068	06069		1	0	0.07	0	0	0	0	0	0.0	0.00115		0.00		562.15	0.00
	06069	06070		1	0	0.07	0	0	0	0	0	0.0	0.00111		0.00		566.74	0.00
	06070	06071		1	0	0.07	0	0	0	0	0	0.0	0.00107		0.00		571.50	0.00
	06071	06072		1	0	0.12	0	0	0	0	0	0.0	0.00177		0.00		506.26	0.00
	06072	06073		1	2	0.06	0	0	0	0	2	0.0	0.00086		775.19		599.26	1.29
21816	01250	06073	0006X	1	0	0.03	0	0	0	0	0	0.0	0.00024		0.00		666.42	0.00
	01250	07207		1	0	0.14	0	0	0	0	0	0.0	0.00103		0.00		576.41	0.00
	06074	07207		1	0	0.58	0	0	0	0	0	0.0	0.00411		0.00		407.51	0.00
21805	06074	06075		1	0	0.47	0	0	0	0	0	0.0	0.00317		0.00		435.82	0.00
21816	06075	08955		1	2	0.53	0	0	0	0	2	0.0	0.00327		203.87		432.32	0.00
	06076	08955		1	0	1.06	0	0	0	0	0	0.0	0.00561		0.00		376.45	0.00
21801	06076	06077		1	2	0.60	0	0	0	1	1	50.0	0.00307		217.16		439.46	0.00
	06077	06078		1	1	0.07	0	0	0	0	1	0.0	0.00035		952.38		677.74	1.41
	01762	06078		1	0	0.08	0	0	0	0	0	0.0	0.00040		0.00		672.89	0.00
	01762	07237		1	1	0.84	0	0	0	0	1	0.0	0.00399		83.54		410.63	0.00
	06079	07237		1	0	0.48	0	0	0	0	0	0.0	0.00208		0.00		485.94	0.00
	06079	06080		1	2	2.10	0	1	0	0	1	50.0	0.00866		76.98		338.33	0.00
	06080	06081		1	1	1.57	0	0	0	0	1	0.0	0.00659		50.58		361.61	0.00
	06081	06082		1	1	1.47	0	0	0	1	0	100.0	0.00633		52.66		365.24	0.00
	06082	06083		1	3	0.89	0	0	0	1	2	33.3	0.00390		256.41		413.06	0.00
25851	06229	06230		1	0	0.07	0	0	0	0	0	0.0	0.00039		0.00		674.08	0.00
	06228	06229		1	1	0.40	0	0	0	1	0	100.0	0.00178		187.27		505.55	0.00
	06227	06228		1	1	1.76	0	0	0	0	1	0.0	0.00784		42.52		346.54	0.00
25837	06226	06227		1	0	0.35	0	0	0	0	0	0.0	0.00155		0.00		523.31	0.00
	06225	06226		1	1	0.23	0	0	1	0	0	100.0	0.00101		330.03		578.93	0.00
25803	06224	06225		1	0	1.52	0	0	0	0	0	0.0	0.00660		0.00		361.48	0.00
	06223	06224		1	1	0.63	0	0	0	0	1	0.0	0.00271		123.00		453.90	0.00
	06222	06223		1	0	0.20	0	0	0	0	0	0.0	0.00085		0.00		600.71	0.00
	06220	06222		1	0	1.09	0	0	0	0	0	0.0	0.00462		0.00		395.47	0.00
25844	06219	06220		1	0	0.24	0	0	0	0	0	0.0	0.00147		0.00		530.18	0.00
	06219	07343		1	0	0.40	0	0	0	0	0	0.0	0.00246		0.00		465.41	0.00
	06218	07343		1	0	0.51	0	0	0	0	0	0.0	0.00331		0.00		430.96	0.00
	06217	06218		1	0	0.32	0	0	0	0	0	0.0	0.00211		0.00		484.16	0.00
	06216	06217		1	0	0.17	0	0	0	0	0	0.0	0.00105		0.00		573.93	0.00
	02220	06216		1	0	0.58	0	0	0	0	0	0.0	0.00366		0.00		419.89	0.00
	02218	02220		1	0	0.08	0	0	0	0	0	0.0	0.00051		0.00		656.11	0.00
	02218	06215		1	0	0.05	0	0	0	0	0	0.0	0.00032		0.00		678.77	0.00
	06214	06215		1	1	1.78	0	0	0	0	1	0.0	0.00351		94.97		424.46	0.00
25803	06213	06214		1	1	0.42	0	0	0	0	1	0.0	0.00081		411.52		606.63	0.00
	06211	06213		1	0	0.06	0	0	0	0	0	0.0	0.00018		0.00		621.15	0.00
	06210	06211		1	0	1.83	0	0	0	0	0	0.0	0.00347		0.00		425.72	0.00
	06209	06210		1	2	1.00	0	0	0	1	1	50.0	0.00190		350.88		497.27	0.00

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	INJURY ACCIDENTS K	A	B	C	PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	NODE	CRITI RATE	CRF
	06208	06209		1	0	0.51	0	0	0	0	0	0.0	0.00095		0.00		586.75	0.00
	06207	06208		1	0	0.25	0	0	0	0	0	0.0	0.00046		0.00		664.31	0.00
	06206	06207		1	0	0.31	0	0	0	0	0	0.0	0.00057		0.00		645.84	0.00
	06205	06206		1	0	0.59	0	0	0	0	0	0.0	0.00106		0.00		572.71	0.00
25849	06204	06205		1	1	1.12	0	0	0	1	0	100.0	0.00196		170.07		493.36	0.00
	06203	06204		1	0	0.54	0	0	0	0	0	0.0	0.00095		0.00		586.75	0.00
25837	06202	06203		1	0	0.23	0	0	0	0	0	0.0	0.00040		0.00		672.89	0.00
25849	06201	06202		1	0	0.42	0	0	0	0	0	0.0	0.00072		0.00		620.66	0.00
	06200	06201		1	0	0.62	0	0	0	0	0	0.0	0.00106		0.00		572.71	0.00
	06199	06200		1	1	0.82	0	0	0	0	1	0.0	0.00138		241.55		538.39	0.00
	06198	06199		1	0	0.42	0	0	0	0	0	0.0	0.00069		0.00		625.54	0.00
	06198	06999		1	0	1.39	0	0	0	0	0	0.0	0.00228		0.00		474.62	0.00
	06197	06999		1	1	1.02	0	0	0	0	1	0.0	0.00164		203.25		516.03	0.00
	06196	06197		1	1	0.61	0	0	0	1	0	100.0	0.00098		340.14		582.79	0.00
25833	06195	06196		1	0	0.41	0	0	0	0	0	0.0	0.00066		0.00		630.51	0.00
	06194	06195		1	1	1.83	0	0	0	0	1	0.0	0.00341		97.75		427.65	0.00
	06193	06194		1	1	1.60	0	0	0	0	1	0.0	0.00333		100.10		430.29	0.00
	06192	06193		1	1	0.79	0	0	0	0	1	0.0	0.00182		183.15		502.72	0.00
	06191	06192		1	0	0.70	0	0	0	0	0	0.0	0.00176		0.00		506.99	0.00
	06190	06191		1	1	1.79	0	0	0	1	0	100.0	0.00490		68.03		389.57	0.00
			LINK SUBTOTALS-		130	66.81	2	5	13	22	88	32.3	0.42993		100.79		161.98	0.00
			GRAND TOTALS-		143	66.81	2	5	16	26	94	34.3	0.42993	104.321	110.87		203.25	0.55

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

	---A M--- HOUR OF DAY ---P M---																								
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	UNKNOWN	TOTAL	
SUNDAY	1	0	1	0	2	0	1	1	0	2	0	1	2	1	1	1	0	1	1	1	1	4	0	0	0	22	S
MONDAY	1	0	0	0	3	0	1	0	0	1	2	0	0	0	2	1	0	0	4	0	2	1	3	0	0	21	M
TUESDAY	0	1	0	0	0	1	1	0	1	3	0	0	0	1	1	0	2	3	0	1	2	3	0	0	0	20	T
WEDNESDAY	0	0	0	2	1	2	1	2	0	1	0	2	2	1	4	1	1	0	0	0	0	3	2	1	0	26	W
THURSDAY	0	1	1	0	1	2	1	0	0	1	0	0	1	0	1	0	1	1	0	2	2	2	0	1	0	18	T
FRIDAY	0	0	1	0	0	2	1	1	5	2	1	0	1	0	1	2	0	1	1	2	1	1	1	0	0	24	F
SATURDAY	0	0	0	0	1	0	0	0	0	2	1	2	1	0	0	1	1	1	0	1	0	0	1	0	0	12	S
UNKNOWN	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	U
TOTAL	2	2	3	2	8	7	6	4	6	12	4	5	7	3	10	6	5	7	6	7	8	14	7	2	0	143	T

	YEAR			
	TOTAL	2002	2003	2004
JANUARY	12	3	5	4
FEBRUARY	12	7	3	2
MARCH	10	3	4	3
APRIL	6	3	1	2
MAY	13	5	1	7
JUNE	10	2	5	3
JULY	17	8	7	2
AUGUST	11	6	1	4
SEPTEMBER	11	3	0	8
OCTOBER	17	6	7	4
NOVEMBER	15	5	3	7
DECEMBER	9	2	2	5
UNKNOWN	0	0	0	0
TOTAL	143	53	39	51

TYPE OF UNIT			
01-2 DOOR	17	10-BOBTAIL	0
02-4 DOOR	35	20-2ADT	1
03-CONVERTBLE	0	30-3ASU	1
04-STAT WGN	7	40-4ASU	0
05-VAN/CAMPER	6	21-2ASA	0
06-PICKUP TRK	67	22-2ATA	1
12-SCHOOL BUS	1	31-3ASA	0
13-MOTOR HOME	0	32-3ATA	2
14-MOTORCYCLE	4	33-3ATR	4
15-MOPED	0	42-4ATA	0
16-MOTOR BIKE	0	25-2AT1A2ATR	0
17-BICYCLE	0	35-3AT1A2ATR	1
18-SNOWMOBILE	0	36-3AT2A2ATR	0
19-PEDESTRIAN	1	50-OTHER	0
23-ATV	0	81-2AX CM BUS	0
07-SUV	27	82-3AX CM BUS	0
99-UNK/OTH	0	98-FARM/TRAC	0
TOTAL	175		

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

TYPE OF LOCATION

ACCIDENT TYPE	ST ROAD	CURV ROAD	**AT INTERSECTION** 3-LEG	4-LEG	5-LEG	DRIVE WAYS	BRIDGE	INTER CHANGE	UN KNOWN	TOTAL
OBJECT IN ROAD	0	1	0	0	0	0	0	0	0	1
REAR END/SIDESWIPE	8	0	6	0	0	4	0	0	0	18
HEAD-ON/SIDESWIPE	2	0	0	0	0	0	0	0	0	2
INTERSECTION MOVEMENT	0	0	5	0	0	0	0	0	0	5
PEDESTRIANS	0	1	0	0	0	0	0	0	0	1
TRAIN	0	0	0	0	0	0	0	0	0	0
RAN OFF ROAD	26	17	1	0	0	2	0	0	0	46
ANIMAL	0	0	0	0	0	0	0	0	0	0
DEER	20	1	0	0	0	0	0	0	0	21
MOOSE	34	5	1	0	0	0	0	0	0	40
BEAR	0	0	0	0	0	0	0	0	0	0
SLED/BIKE	0	0	0	0	0	0	0	0	0	0
OTHER	2	0	0	0	0	2	0	0	0	4
NON COLLISION	4	1	0	0	0	0	0	0	0	5
UNKNOWN	0	0	0	0	0	0	0	0	0	0
TOTAL	96	26	13	0	0	8	0	0	0	143

INJURY DATA

SEV CODE	INJURY ACCIDENTS	NUMBER OF INJURIES
K	2	2
A	5	8
B	16	20
C	26	36
PD	94	
TOTAL	143	66

FIXED OBJECT STRUCK

CONSTRUCTION BARRICADES	0
TRAFFIC SIGNAL	0
R/R CROSSING	0
LIGHT POLE	0
UTILITY POLE	3
SIGN POST	0
MAIL BOXES	0
OTHER POLES/POSTS	1
FIRE PLUG/PARK METER	0
TREE/SHRUBBERY	11
CRASH CUSHION	0
MEDIAN SAFETY BARRIER	0
BRIDGE PIERS	2
OTHER GUARDRAILS	1
FENCING NOT BARRIER	0
CULVERT HEADWALL	0
EMBANKMENT/DITCH	28
BUILDING WALL	1
ROCK OUTCROPPING/LEDGE	3
OTHER	5
UNKNOWN	0
TOTAL	55

TRAFFIC CONTROL DEVICES

TRAFFIC SIG STOP/GO	0
TRAFFIC SIG FLASHING	0
OVERHEAD FLASHERS	0
ALL WAY STOP	0
STOP SIGN/OTHER	4
YIELD SIGN	0
CURVE SIGN	12
OFFICER /SCHOOL PAT	1
SCHOOL BUS STOP ARM	0
SCHOOL ZONE SIGN	0
R/R CROSSING DEVICE	0
NO PASSING ZONE	1
NONE	118
OTHER	7
UNKNOWN	0
TOTAL	143

ROAD CHARACTER

LEVEL STRAIGHT	72
LEVEL CURVED	17
ON GRADE STRAIGHT	34
ON GRADE CURVED	10
TOP OF HILL STRAIGHT	5
TOP OF HILL CURVED	1
BOTTOM OF HILL STRAIGHT	2
BOTTOM OF HILL CURVED	2
UNKNOWN	0
TOTAL	143

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

APPARENT CONTRIBUTING FACTOR	DR 1	DR 2	DR 3	DR 4	DR 5	OTHER	TOTAL
HUMAN FACTORS							
NO INPROPER DRIVING	89	22	1	0	0	0	112
FAIL TO YIELD R-WAY	2	1	0	0	0	0	3
ILLEGAL UNSAFE SPEED	11	0	0	0	0	0	11
FOLLOW TOO CLOSE	5	0	0	0	0	0	5
DISREGARD TRAF CONTROL	1	0	0	0	0	0	1
DRIVING LEFT OF CENTER	4	0	0	0	0	0	4
IMPROPER PASSING	1	1	0	0	0	0	2
IMPROPER LANE CHANGE	1	0	0	0	0	0	1
IMPROPER START/STOP	0	0	0	0	0	0	0
IMPROPER TURN	1	0	0	0	0	0	1
UNSAFE BACKING	3	1	0	0	0	0	4
NO PROPER SIGNAL	0	0	0	0	0	0	0
IMPEDING TRAFFIC	0	0	0	0	0	0	0
DRIVER INATTENTION	12	4	0	0	0	0	16
DRIVER INEXPERIENCE	1	0	0	0	0	0	1
PEDESTRIAN VIOLATION	0	0	0	0	0	0	0
PHYSICAL IMPAIRMENT	4	0	0	0	0	0	4
VISION OBSCURED GLASS	0	0	0	0	0	0	0
VISION OBSCURED LIGHT	1	0	0	0	0	0	1
VISION OBSCURED OTHER	1	1	0	0	0	0	2
OTHER HUMAN FACTOR	2	0	0	0	0	0	2
HIT & RUN	0	0	0	0	0	0	0
VEHICULAR FACTORS							
DEFECTIVE BRAKES	0	0	0	0	0	0	0
DEFECTIVE TIRE	1	0	0	0	0	0	1
DEFECTIVE LIGHTS	0	0	0	0	0	0	0
DEFECTIVE SUSPENSION	1	0	0	0	0	0	1
DEFECTIVE STEERING	0	0	0	0	0	0	0
OTHER VEHICLE DEFECT	0	0	0	0	0	0	0
UNKNOWN	2	1	0	0	0	0	3
TOTAL	143	31	1	0	0	0	175

APPARENT PHYSICAL CONDITION	DR 1	DR 2	DR 3	DR 4	DR 5	OTHER	TOTAL
NORMAL	128	31	1	0	0	0	160
UNDER THE INFLUENCE	2	0	0	0	0	0	2
DRINKING	7	0	0	0	0	0	7
USING DRUGS	0	0	0	0	0	0	0
ASLEEP	2	0	0	0	0	0	2
FATIGUED	0	0	0	0	0	0	0
ILL	2	0	0	0	0	0	2
HANDICAPPED	0	0	0	0	0	0	0
OTHER/UNKNOWN	2	0	0	0	0	0	2
TOTAL	143	31	1	0	0	0	175

AGE	TYPE OF UNIT: DRIVER	BIKE	SNOW SLED	PED	ATV	TOTAL
9-UNDER	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	18	0	0	0	0	18
20-24	15	0	0	0	0	15
25-29	12	0	0	0	0	12
30-39	29	0	0	0	0	29
40-49	30	0	0	0	0	30
50-59	38	0	0	1	0	39
60-69	15	0	0	0	0	15
70-79	11	0	0	0	0	11
80-OVER	6	0	0	0	0	6
UNKNOWN	0	0	0	0	0	0
TOTAL	174	0	0	1	0	175

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MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

WEATHER	LIGHT CONDITION	ROAD SURFACE: DRY	WET	SNOW SAND	ICE SAND	MUD	DEBRIS	OIL	SNOW	ICE	OTHER	TOTAL
CLEAR	DAWN	6	0	0	1	0	0	0	0	0	0	7
	DAYLIGHT	26	1	1	4	0	0	0	0	1	0	33
(96)	DUSK	3	0	0	0	0	0	0	0	0	0	3
	DARK-LIGHTS	7	1	0	0	0	0	0	0	0	0	8
	DARK NO LIGHTS	39	0	2	1	0	0	0	0	1	1	44
	DARK LIGHTS OFF	1	0	0	0	0	0	0	0	0	0	1
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
RAIN	DAWN	0	1	0	0	0	0	0	1	0	0	2
	DAYLIGHT	0	6	0	0	0	0	0	0	1	0	7
(13)	DUSK	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	4	0	0	0	0	0	0	0	0	4
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
SNOW	DAWN	0	0	0	0	1	0	0	0	0	0	1
	DAYLIGHT	0	0	0	0	0	0	0	4	3	0	7
(12)	DUSK	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	1	0	1	0	0	0	1	1	0	4
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
SLEET/HAIL	DAWN	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	0	0	0	0	0	0	0	0	2	0	2
(4)	DUSK	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	1	0	0	0	0	0	1	0	2
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
FOG/SMOG	DAWN	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	0	2	0	0	0	0	0	0	0	0	2
(3)	DUSK	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	1	0	0	0	0	0	0	0	0	1
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0

LIGHT	
DAWN	10
DAYLIGHT	64
DUSK	3
DARK-LIGHTS	8
DARK NO LIGHTS	57
DARK LIGHTS OFF	1
OTHER	0
UNKNOWN	0
TOTAL	143

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

WEATHER	LIGHT CONDITION	ROAD SURFACE: DRY	WET	SNOW SAND	ICE SAND	MUD	DEBRIS	OIL	SNOW	ICE	OTHER	TOTAL
CROSS WINDS	DAWN	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	0	0	0	0	0	0	0	0	1	0	1
(1)	DUSK	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
SAND/DUST	DAWN	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
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
CLOUDY	DAWN	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	7	2	1	0	0	0	0	1	0	0	11
(13)	DUSK	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	1	1	0	0	0	0	0	0	0	0	2
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
OTHER	DAWN	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	1	0	0	0	0	0	0	0	0	0	1
(1)	DUSK	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
ROAD SURFACE TOTALS		91	20	5	7	1	0	0	7	11	1	143

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL
STUDY PERIOD: FROM MONTH 01 YEAR 2002 TO MONTH 12 YEAR 2004

INPUT COMMENTS

REQUEST: RTE 6/15
TOWN: GUILFORD - JACKMAN

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	LAST NODE	EXCLUDE LAST	DISTANCE
0006X	21	07042	0	0.00	07043	06083	0	0.00
	25	06230	0	0.00	06229	06190	0	0.00

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

LINK DETAIL

TOWN#	STREET NAME OR ROUTE #	LOW NODE	HIGH NODE	DISTANCE	TOTAL ACCIDENTS	INJURY ACCIDENTS K	A	B	C	PD	ACCIDENT REPORT NUMBERS		
21010	RTE 6	07042	07043	0.1	1	0	0	0	0	1	200212976		
				0.2	1	0	1	0	0	0	200316751		
				0.4	1	0	0	0	0	1	200306766		
				1.0	2	0	0	0	0	2	200200370	200303328	
				1.2	1	0	0	0	0	1	200404192		
		07043	08962	0.3	1	0	0	0	0	1	200341064		
				0.5	1	0	0	0	0	1	200437162		
				0.6	1	0	0	0	1	0	200224283		
				0.7	1	0	0	0	1	0	200426749		
				0.8	1	0	0	0	0	1	200211608		
		07044	08962	0.1	1	0	0	0	0	1	200320156		
		07044	08941	0.2	1	0	0	0	1	0	200435559		
		07045	08941	0.1	1	0	0	0	0	1	200435560		
				0.6	1	0	0	0	0	1	200432030		
		07045	07046	0.1	1	0	0	0	0	1	200404193		
		01875	07047	0.1	2	0	0	0	0	2	200316871	200423920	
				0.3	2	0	0	0	0	2	200320630	200401116	
		07047	07048	0.7	2	0	0	0	0	2	200224236	200308522	
				0.9	1	0	0	0	0	1	200238474		
				1.0	1	0	0	0	0	1	200221967		
		07048	07049	0.4	1	0	0	0	0	1	200435567		
		07049	08999	0.1	3	0	1	0	0	2	200202121	200240736	200432738
				0.4	1	0	0	0	0	1	200411000		
				0.5	1	0	0	1	0	0	200233867		
				0.7	1	0	0	0	0	1	200215463		
				1.0	2	0	0	0	0	2	200303346	200303363	
21150	RTE 6+15			1.1	1	0	0	0	0	1	200210335		
		07050	08999	0.1	2	0	0	1	1	0	200413925	200427642	
				0.2	1	0	0	1	0	0	200339524		
				0.7	1	0	0	0	0	1	200423915		
				1.3	2	0	1	0	1	0	200205009	200312834	
				1.4	1	0	0	0	1	0	200426326		
		07051	08961	0.1	1	0	0	0	1	0	200408167		
		01125	07052	0.1	1	1	0	0	0	0	200302600		
		07053	08943	0.1	1	0	0	0	0	1	200433500		
		07053	07054	0.6	1	0	0	0	1	0	200321101		
		07055	07056	0.3	1	0	0	0	0	1	200423376		
		07056	07057	0.0	1	0	0	0	0	1	200317650		
				0.3	1	0	0	1	0	0	200413721		
				0.4	1	0	0	0	1	0	200234102		
				0.6	1	0	0	0	1	0	200217395		
				0.7	1	0	0	0	0	1	200317897		
				0.8	1	0	0	0	0	1	200219161		
				1.0	2	0	0	1	1	0	200201653	200403994	
				1.2	2	0	1	0	0	1	200239701	200308256	
				1.3	1	0	0	0	0	1	200438309		

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

LINK DETAIL

TOWN#	STREET NAME OR ROUTE #	LOW NODE	HIGH NODE	DISTANCE	TOTAL ACCIDENTS	INJURY ACCIDENTS K	A	B	C	PD	ACCIDENT REPORT NUMBERS		
				1.4	2	0	0	0	0	2	200317233	200430047	
		07057	07058	0.1	1	0	0	0	0	1	200423913		
				0.3	1	0	0	0	0	1	200416082		
				1.0	1	0	0	0	0	1	200200368		
21190	GREENVILLE RD			1.5	1	0	0	0	0	1	200329948		
		07058	07059	0.1	1	0	0	0	0	1	200416790		
				0.2	2	0	0	2	0	0	200216792	200216831	
				1.6	3	0	0	0	1	2	200208824	200329606	200424239
		07059	08958	0.0	1	0	0	0	0	1	200319162		
				0.1	1	0	0	0	0	1	200330361		
				0.5	1	0	0	0	0	1	200220032		
				0.6	3	1	0	1	0	1	200299077	200426327	200426323
		08957	08958	0.2	2	0	0	0	0	2	200219193	200219970	
				0.3	1	0	0	0	0	1	200212449		
		07060	08957	0.8	1	0	0	0	0	1	200202827		
21090	MOOSEHEAD LK RD	07060	08956	0.1	3	0	0	1	1	1	200324093	200433480	200440800
		07061	08956	0.6	2	0	0	1	0	1	200208116	200212027	
		07061	07062	0.1	1	0	0	0	0	1	200216029		
				0.4	1	0	0	0	0	1	200411925		
		07062	07063	0.1	3	0	0	1	0	2	200213299	200235953	200236351
				0.2	1	0	0	0	0	1	200238983		
				0.4	1	0	0	0	0	1	200433479		
				1.3	1	0	0	0	0	1	200302333		
				1.4	1	0	0	0	0	1	200421942		
		07063	08942	0.1	1	0	0	0	0	1	200429241		
		07064	07065	0.1	1	0	0	0	0	1	200215655		
	0006X	06059	07067	0.1	1	0	0	1	0	0	200320641		
	WEST ST.	06059	06060	0.1	2	0	0	0	0	2	200235357	200331924	
		06067	06068	0.1	1	0	0	0	1	0	200426331		
21805	0006X	06072	06073	0.1	2	0	0	0	0	2	200332508	200418821	
		06075	08955	0.4	1	0	0	0	0	1	200309194		
21816				0.5	1	0	0	0	0	1	200339044		
		06076	06077	0.2	1	0	0	0	1	0	200334167		
21801				0.5	1	0	0	0	0	1	200221915		
		06077	06078	0.1	1	0	0	0	0	1	200207259		
		01762	07237	0.3	1	0	0	0	0	1	200233232		
		06079	06080	0.5	1	0	0	0	0	1	200315642		
				2.0	1	0	1	0	0	0	200428662		
		06080	06081	0.2	1	0	0	0	0	1	200430049		
		06081	06082	0.3	1	0	0	0	1	0	200209309		
		06082	06083	0.5	1	0	0	0	1	0	200433595		
25851				0.8	2	0	0	0	0	2	200330365	200415033	
		06228	06229	0.3	1	0	0	0	1	0	200438223		
25837		06227	06228	1.6	1	0	0	0	0	1	200217901		
25803		06225	06226	0.1	1	0	0	1	0	0	200415032		
25844		06223	06224	0.5	1	0	0	0	0	1	200210950		

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

LINK DETAIL

TOWN#	STREET NAME OR ROUTE #	LOW NODE	HIGH NODE	DISTANCE	TOTAL ACCIDENTS	INJURY ACCIDENTS K	A	B	C	PD	ACCIDENT REPORT NUMBERS
		06214	06215	1.5	1	0	0	0	0	1	200221906
25803		06213	06214	0.2	1	0	0	0	0	1	200403190
		06209	06210	0.2	1	0	0	0	1	0	200223555
				0.8	1	0	0	0	0	1	200206381
25849		06204	06205	0.1	1	0	0	0	1	0	200441387
		06199	06200	0.1	1	0	0	0	0	1	200233697
		06197	06999	0.9	1	0	0	0	0	1	200416654
25833		06196	06197	0.1	1	0	0	0	1	0	200321287
		06194	06195	0.2	1	0	0	0	0	1	200336133
		06193	06194	0.4	1	0	0	0	0	1	200428351
		06192	06193	0.7	1	0	0	0	0	1	200328924
		06190	06191	0.1	1	0	0	0	1	0	200404641
				TOTALS-	130	2	5	13	22	88	

INV Mar. 8. 2006 9:05AM

CODE NUMBER LINDE

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

2220'3650

No. 5493 D.P.P. ONLY

07054.07057.10

DATE OF ACCIDENT: MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
2	13	02	Wed	1240	1246	1319

001653

ON: ROUTE 15 | OR NAME OF STREET OR HIGHWAY | CITY OR TOWN: Monson | CODE NUMBER 150 | COUNTY: Piscataquis | HIT AND RUN ☐

AT: BETWEEN NODE NUMBERS | DISTANCE FROM SCENE: MILES TENTHS | TO NUMBER | MILES AND TENTHS TO LANDMARK: At Spectical Pond Corner | CIRCLE ONE: N W E S

UNIT NO. 1 - VEHICLE 1

TOTAL UNITS INV 1

DRIVER
DRIVER'S LICENSE NUMBER - 1: 5862092 | STATE: ME
LAST NAME: King | FIRST NAME: Warren | MIDDLE: B
NUMBER AND STREET: P.O Box 703
CITY: Greenville | STATE: ME | CODE NUMBER: 2 0
DATE OF BIRTH: 3-28-23 | SEX: M | LICENSE STATUS: (A) S P N | REST/PERM: -/- | CLASS: C

OWNER
LAST NAME - OWNER 1: Same | FIRST NAME | MIDDLE
NUMBER AND STREET: Same
CITY: Same | STATE

VEHICLE
VEHICLE TYPE: 04=SW | YEAR AND MAKE: 00 37=Isuzu | COLOR: 03=RED
LICENSE PLATE NUMBER: T497 GA | YEAR: 02 | ISSUE STATE: ME | NO OCCUP: 1
VEHICLE IDENTIFICATION NO.: 4S2DM58W424358172
INSURANCE CO.: Liberty Mutual
POLICY NO.: A02-210-340538-02 1

9 - TOP 10 - BOTTOM | TOTAL | TOWED BY: Moosehead Towing | DAMAGE CODES: 11 | DAMAGE ESTIMATE: $7000.-

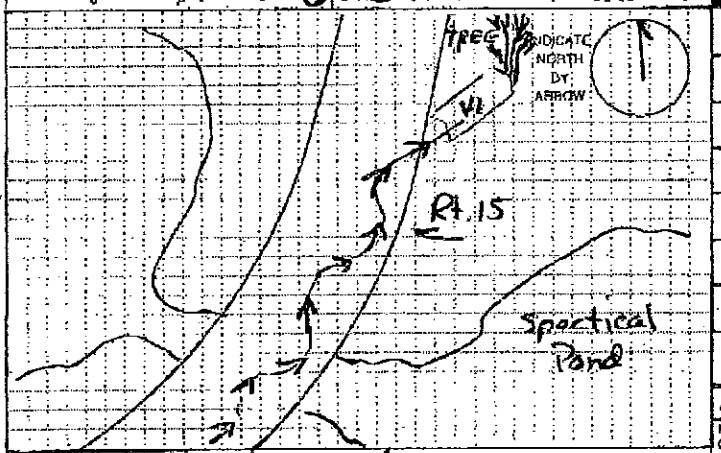
UNIT NO. 2 - ☐ VEH 2 ☐ PED ☐ BIKE

DRIVER
DRIVER'S LICENSE NUMBER 2 | STATE
LAST NAME | FIRST NAME | MIDDLE
NUMBER AND STREET
CITY | STATE | CODE NUMBER
DATE OF BIRTH | SEX | LICENSE STATUS: A S P N | REST/PERM | CLASS

OWNER
LAST NAME OWNER 2 | FIRST NAME | MIDDLE
NUMBER AND STREET
CITY | STATE

VEHICLE
VEHICLE TYPE | YEAR AND MAKE | COLOR
LICENSE PLATE NUMBER | YEAR | ISSUE STATE | NO OCCUP
VEHICLE IDENTIFICATION NO.
INSURANCE CO.
POLICY NO.

9 - TOP 10 - BOTTOM | TOTAL | TOWED BY: | DAMAGE CODES | DAMAGE ESTIMATE: $



DESCRIPTION: VI NB Rt.15 at Spectical Pond corner. VI lost control on snow covered roadway. VI went over the snow bank on the east side of Rt.15 and struck a tree.

AMBULANCE CODES: GA; DEAN Ambulance

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED: 1

NAMES OF ALL PERSONS INVOLVED (DRIVERS · PASSENGERS · WITNESSES · PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Warren King	2	1	2	3	1	1	1	1	M	78

INVESTIGATING OFFICER (SIGNATURE) | OFFICER NUMBER: 4605 | TROOP OR DEPARTMENT: E-MSP | APPROVED BY: Lt. Osgood Morse | DATE

LOCAL CODES

FORM 13:20A

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

Mar. 8. 2006 9:06AM — No. 5493 P. 3

22217541

017395

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	7	21	02	Sunday	0220	0229	0258

	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
ON	15		Monson	60	Piscataquis	
AT	BETWEEN NODE NUMBERS	DISTANCE FROM SCENE (MILES / FEET)	TO NUMBER	MILES AND TENTHS TO LANDMARK		CIRCLE ONE
				.8 Miles to Shirley TL		N E S W

UNIT NO. 1 - VEHICLE 1

TOTAL UNITS INV. 1

DRIVER

DRIVER'S LICENSE NUMBER 1	STATE
9133282	ME

LAST NAME	FIRST NAME	MIDDLE
Duncan	Stacey	L

NUMBER AND STREET: 72 Flanders Hill Rd

CITY	STATE	CODE NUMBER
Sangerville	ME	20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
3/18/71	F	(A) S P N	-1-	C

OWNER

LAST NAME - OWNER 1	FIRST NAME	MIDDLE
Duncan	Stacey	L

NUMBER AND STREET: 262 West St.

CITY	STATE
Walpole	MA

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
UT-01	95 Chevy-01	WHI

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP
6009Y0	02	MA	1

VEHICLE IDENTIFICATION NO. 1GNDT13W352235978

INSURANCE CO. Commerce Ins. Co.

POLICY NO. G-PP505

TOWED BY: Moosehead Towing

DAMAGE CODES: 11 — DAMAGE ESTIMATE: $ 1800

UNIT NO. 2 - ☐ VEH 2 ☐ PED ☐ BIKE

DRIVER

DRIVER'S LICENSE NUMBER 2	STATE

LAST NAME	FIRST NAME	MIDDLE

NUMBER AND STREET:

CITY	STATE	CODE NUMBER

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
		A S P N		

OWNER

LAST NAME OWNER 2	FIRST NAME	MIDDLE

NUMBER AND STREET:

CITY	STATE

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP

VEHICLE IDENTIFICATION NO.

INSURANCE CO.

POLICY NO.

TOWED BY:

DAMAGE CODES — DAMAGE ESTIMATE: $

INDICATE NORTH BY ARROW

Route 15

Veh.1 Veh.1 Veh.1 Veh.1 Veh.1 Veh.1 Veh.1 Veh.1

DESCRIPTION: Veh. 1 South Rt. 15 Monson. Veh. swerved for animal that ran into roadway. Veh. 1 over corrected and lost control. Veh. 1 went off roadway, rolling over, striking tree and coming to final rest on passenger side. Driver taken to hospital in PQI.

TOTAL NUMBER OF PERSONS INVOLVED: 1

AMBULANCE CODES: N/A

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.): N/A

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Stacey Duncan	2	2	1	4	2	1	1	1	F	31

INVESTIGATING OFFICER (SIGNATURE): Marc Poulin — OFFICER NUMBER: 3998 — TROOP OR DEPARTMENT: C

APPROVED BY: Lt Herbert Morse — DATE: 7.30.02

LOCAL CODES

CRM 13:204

Mar. 8. 2006 9:06AM

CODE NUMBER 6 2 2 0 E

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

2220254

No. 5493 P. 4 ONLY

019161

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	8	15	02	Thurs	2043	2046	2101

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	15		Monson	150	Piscataquis	

AT	BETWEEN NODE NUMBERS	DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
		MILES TENTHS		.6mi to Monson-Shirley line (CIRCLE ONE: N S E W)

UNIT NO. 1 - VEHICLE 1

TOTAL UNITS INV 2

UNIT NO. 2 - ☐ VEH 2 ☐ PED ☐ BIKE

DRIVER

DRIVER'S LICENSE NUMBER - 1	STATE
4493053	ME

LAST NAME	FIRST NAME	MIDDLE
Groh	Darrel	B

NUMBER AND STREET: P.O. Box 302

CITY	STATE	CODE NUMBER
Palmyra	ME	20

DATE OF BIRTH	SEX	LICENSE STATUS	REST / PERM	CLASS
5-5-52	M	(A) S P N	- / I	C

OWNER

LAST NAME - OWNER 1	FIRST NAME	MIDDLE
Same		

NUMBER AND STREET: Same

CITY: Same STATE:

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
06 = Pickup	87 06 = Ford	93 MA

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP
6588GF	02	ME	2

VEHICLE IDENTIFICATION NO. 2FTEF14N1HCA53092

INSURANCE CO. Liberty Mutual

POLICY NO. A02-218-131963-21 2

TOWED BY:

DAMAGE CODES: 1, 8 DAMAGE ESTIMATE: $ 1000.-

UNIT NO. 2 - VEHICLE

DRIVER'S LICENSE NUMBER 2	STATE

LAST NAME	FIRST NAME	MIDDLE

NUMBER AND STREET:

CITY: STATE: CODE NUMBER:

DATE OF BIRTH	SEX	LICENSE STATUS	REST / PERM	CLASS
		A S P N		

OWNER 2: LAST NAME - OWNER 2 | FIRST NAME | MIDDLE

NUMBER AND STREET:

CITY: STATE:

VEHICLE: VEHICLE TYPE | YEAR AND MAKE | COLOR

LICENSE PLATE NUMBER | YEAR | ISSUE STATE | NO OCCUP

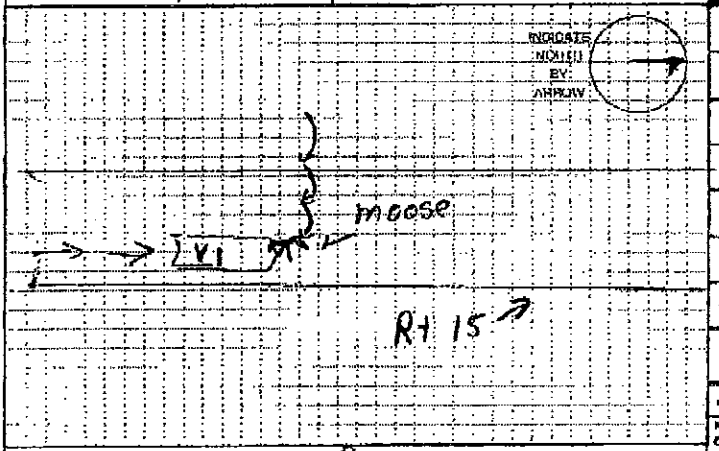
VEHICLE IDENTIFICATION NO.

INSURANCE CO.

POLICY NO.

TOWED BY:

DAMAGE CODES: DAMAGE ESTIMATE: $



DESCRIPTION: VI NB Rt 15. Moose entered the roadway from the West Ditch. VI struck moose.

AMBULANCE CODES: None

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED: 2

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS WITNESSES PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Darrel Groh			2	5	1	1	1	1	M	50
Tanya Groh			2	5	1	1	1	3	F	49

INVESTIGATING OFFICER (SIGNATURE) | OFFICER NUMBER: 4605 | TROOP OR DEPARTMENT: E-MSP | APPROVED BY: Lt Herbert Morse | DATE: 9.3.02

LOCAL CODES

Y 4-97
CRM 13/204

07056-07057-08

TRAFFIC ACCIDENT REPORT

STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: ME0110000

02-6355

FOR D.P.S. USE ONLY: P 34102

DATE OF ACCIDENT: MONTH 09 | DAY 08 | YEAR 2002 | DAY OF WEEK Sun | TIME 11:48 | TIME REPORTED 11:50 | TIME ARRIVED 12:07

ON: ROUTE 6 | OR NAME OF STREET OR HIGHWAY: RTE 6+15 | CITY OR TOWN: Monson | CODE NUMBER: 21150 | COUNTY: Piscataquis | HIT AND RUN:

AT: BETWEEN NODE NUMBERS: 07056 / 07057 | DISTANCE FROM SCENE: 0 MILES 4 TNTHS | TO NUMBER: 07056 | MILES AND TENTHS TO LANDMARK | N W S E (CIRCLE ONE)

N↑ UNIT NO. 1 - Vehicle | TOTAL UNITS INV. 1 | UNIT NO. - | ☐ VEH. 2 ☐ PED. ☐ BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1: 544010847 | STATE: MA

LAST NAME: Muhr, Kelly | FIRST NAME | MIDDLE

NUMBER AND STREET: 132 Elliotsville Rd

CITY: Monson | STATE: ME 04464 | CODE NUMBER: 20

DATE OF BIRTH: 08/19/1968 | SEX: F | LICENSE STATUS: (A) S P N | REST/PERM: 0 | CLASS: C

OWNER

LAST NAME - OWNER 1: Muhr, Michael | FIRST NAME | MIDDLE

NUMBER AND STREET: 132 Elliotsville Rd

CITY: Monson | STATE: ME 04464

VEHICLE

VEHICLE TYPE: Station Wagon | YEAR AND MAKE: 1994 Ford | COLOR: Maroon

LICENSE PLATE NUMBER: 431JGJ | YEAR: 2003 | ISSUE STATE: ME | NO OCCUP.: 3

VEHICLE IDENTIFICATION NO.: 1FARP15J2RW252276

INSURANCE CO.: Commerce Ins Co

POLICY NO.: N/A

TOWED BY: Moosehead Towing

DAMAGE CODES: 3, 9 | DAMAGE ESTIMATE: $ 3,000.00

EVENT ENTIRE: 9 (TOP) 10 (BOTTOM)

DRIVER

DRIVER'S LICENSE NUMBER | STATE

LAST NAME | FIRST NAME | MIDDLE

NUMBER AND STREET

CITY | STATE | CODE NUMBER

DATE OF BIRTH | SEX | LICENSE STATUS: A S P N | REST/PERM | CLASS

OWNER

LAST NAME - OWNER 2 | FIRST NAME | MIDDLE

NUMBER AND STREET

CITY | STATE

VEHICLE

VEHICLE TYPE | YEAR AND MAKE | COLOR

LICENSE PLATE NUMBER | YEAR | ISSUE STATE | NO OCCUP.

VEHICLE IDENTIFICATION NO.

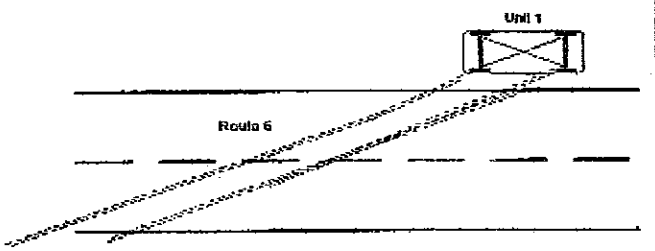
INSURANCE CO.

POLICY NO.

TOWED BY:

DAMAGE CODES | DAMAGE ESTIMATE $

EVENT ENTIRE: 9 (TOP) 10 (BOTTOM)



TOTAL NUMBER OF PERSONS INVOLVED: 3

DESCRIPTION: Unit 1 was Northbound on Rt 6/15. Driver said she was tending to Nicholas in backseat(tightening seatbelt) when she went over the right side of the road. She realized this, and overcorrected and skidded across the road and rolled into the ditch.

AMBULANCE CODES: N/A(1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Muhr, Kelly (Driver)	9	4	3	4	1	1	1	1	F	34
Muhr, Nicholas (Passenger)	11	11	2	5	1	1	1	6	M	7
Muhr, Amanda (Passenger)	8	4	2	4	1	1	1	3	F	5

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE) | OFFICER NUMBER: 1109 | TROOP OR DEPARTMENT: PISCATAQUIS COUNTY SHERIFFS DEPT | APPROVED BY: | DATE

Guy E. Dow
FORM 13:20A
Rev. 4/97

02-6355-0-4

07056-20027-1-P

TRAFFIC ACCIDENT REPORT
- STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: ME0110000 | 02-8005 | FOR D.P.S. USE ONLY: P 39701

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
12	12	02	2002	Mon	00:03	00:05	00:20

ON ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
ROUTE 6	RTE 6+15	Monson	21150	Piscataquis	

AT BETWEEN NODE NUMBERS		DISTANCE FROM SCENE		TO NUMBER	MILES AND TENTHS TO LANDMARK
07056	07057	0 MILES	2 TNTHS	07057	N W S E (CIRCLE ONE)

N↑ **UNIT NO. 1** - Vehicle | TOTAL UNITS INV. 1 | **UNIT NO.** - ☐ VEH. 2 ☐ PED. ☐ BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1	STATE
1526043	ME

LAST NAME: HOFBAUER, JOHN F JR | FIRST NAME | MIDDLE

NUMBER AND STREET: BX 338

CITY: GREENVILLE | STATE: ME 04441 | CODE NUMBER: 20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
10/20/1939	M	(A) S P N	0	A

OWNER

LAST NAME - OWNER 1: HOFBAUER, JOHN F JR | FIRST NAME | MIDDLE

NUMBER AND STREET: BX 338

CITY: GREENVILLE | STATE: ME 04441

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
Station Wagon 4	2002 Volvo	Tan

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
H68ADN	2003	FL	2

VEHICLE IDENTIFICATION NO. YV1SZ58D621065784

INSURANCE CO. PROGRESSIVE

POLICY NO. 50570043-1

9 (TOP) 10 (BOTTOM) — ENTIRE VEH? — TOWED BY: DARLINGS

DAMAGE CODES: 6, 7 | DAMAGE ESTIMATE: $ 5,000.00

DRIVER (2nd)

DRIVER'S LICENSE NUMBER | STATE

LAST NAME | FIRST NAME | MIDDLE

NUMBER AND STREET

CITY | STATE | CODE NUMBER

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
		A S P N		

OWNER (2nd)

LAST NAME - OWNER 2 | FIRST NAME | MIDDLE

NUMBER AND STREET

CITY | STATE

VEHICLE (2nd)

VEHICLE TYPE	YEAR AND MAKE	COLOR

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.

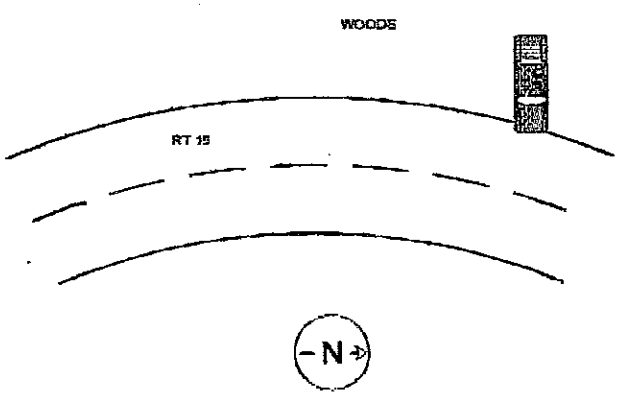
VEHICLE IDENTIFICATION NO.

INSURANCE CO.

POLICY NO.

9 (TOP) 10 (BOTTOM) — ENTIRE VEH? — TOWED BY:

DAMAGE CODES | DAMAGE ESTIMATE: $



TOTAL NUMBER OF PERSONS INVOLVED: 2

DESCRIPTION: UNIT 1 WAS NORTH BOUND ON RT 15 IN MONSON NEAR SPECTACLE POND. HE LOST CONTROL DUE TO ICY, SNOWDRIFTED ROAD CONDITIONS AND SKIDDED INTO THE DITCH.

AMBULANCE CODES N/A(1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
HOFBAUER, JOHN F JR (Driver/Owner)	11	11	2	5	1	1	1	1	M	63
HOFBAUER, JANE (Passenger)	11	11	2	5	1	1	1	3	F	65

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
GUY E DOW	1109	PISCATAQUIS COUNTY SHERIFFS DEPT		

FORM 19:20A
Rev. 4/97

TRAFFIC ACCIDENT REPORT

STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: ME0110000

03-1086

FOR D.P.S USE ONLY: P 08256

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	03	03	2003	Mon	10:50	10:50	11:20

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	ROUTE 15	RTE 6+15	Monson	21150	Piscataquis	

AT	BETWEEN NODE NUMBERS		DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
	07056	07057	0 MILES 2 TNTHS	07057	

N W S E (CIRCLE ONE)

S↓ UNIT NO. 1 - Vehicle — TOTAL UNITS INV. 2 — S↓ UNIT NO. 2 - [X] VEH. 2 [ ] PED. [ ] BIKE

DRIVER

	UNIT NO. 1	UNIT NO. 2
DRIVER'S LICENSE NUMBER	8790073	6085175
STATE	ME	ME
LAST NAME	KANE, ELIZABETH B	LAYMAN, LYNN A
FIRST NAME		
MIDDLE		
NUMBER AND STREET	PO BX 455	PO BX 354
CITY	GREENVILLE	GREENVILLE
STATE	ME 04441	ME 04441
CODE NUMBER	20	20
DATE OF BIRTH	12/29/1917	07/22/1951
SEX	F	F
LICENSE STATUS (A S P N)	A	A
REST/PERM	A	0
CLASS	C	C

OWNER

	UNIT NO. 1	UNIT NO. 2
LAST NAME - OWNER	KANE, ELIZABETH B	LAYMAN, LYNN A
FIRST NAME		
MIDDLE		
NUMBER AND STREET	PO BX 455	PO BX 354
CITY	GREENVILLE	GREENVILLE
STATE	ME 04441	ME 04441

VEHICLE

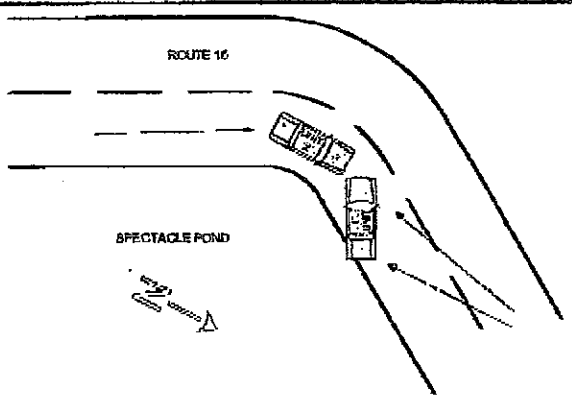
	UNIT NO. 1	UNIT NO. 2
VEHICLE TYPE	4 Door	2 Door
YEAR AND MAKE	1995 Honda	1996 Ford
COLOR	Red	Red
LICENSE PLATE NUMBER	8580	524KT
YEAR	2003	2003
ISSUE STATE	ME	ME
NO OCCUP.	1	1
VEHICLE IDENTIFICATION NO.	1HGEG8654SLO43889	KNJLT05H8T6189085

INSURANCE

	UNIT NO. 1	UNIT NO. 2
INSURANCE CO.	CU YORK INS.CO	ALLSTATE
POLICY NO	YMZP19164	9-19-105553

	UNIT NO. 1	UNIT NO. 2
TOWED BY	MOOSEHEAD TOWING	MOOSEHEAD TOWING
DAMAGE CODES	1	1
DAMAGE ESTIMATE	$ 1,000.00	$ 1,000.00

EVENT IF ENTIRE: 9 (TOP) 10 (BOTTOM)



TOTAL NUMBER OF PERSONS INVOLVED: 2

DESCRIPTION: UNIT 1 WAS SOUTHBOUND ON RT 15. UNIT 1 HAD OBSCURED VISION FROM BLOWING SNOW . UNIT 1 LOST CONTROL DUE TO THE ICY ROAD CONDITIONS AND SKIDDED INTO THE PATH OF UNIT 2.

AMBULANCE CODES: Charles A. Dean Ambulance Svc(210)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	25	27	28	29	30	31	32	33	34
KANE, ELIZABETH B (Driver/Owner)	11	11	2	5	1	1	1	1	F	85
LAYMAN, LYNN A (Driver/Owner)	9	3	3	2	1	2	1	1	F	51

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
GUY E DOW	T109	PISCATAQUIS COUNTY SHERIFFS DEPT	LT YOUNG	3/3/2003

FORM 13:20A
Rev. 4/97

TRAFFIC ACCIDENT REPORT

STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: ME0110000

03-3029

FOR D.P.S. USE ONLY: P 17233

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
1 2	06	17	2003	Tue	21:13	21:14	21:32

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	RT 15		Monson	21150 (R)	Piscataquis	

AT	BETWEEN NODE NUMBERS		DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
2 18			0 MILES 0 TNTHS	7057	N W S E (CIRCLE ONE)

NT UNIT NO. 1 - Vehicle | TOTAL UNITS INV. 1 | UNIT NO. - | VEH. ? | PED. | BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1	STATE
0575054	ME

LAST NAME	FIRST NAME	MIDDLE
BARTON, DAVID A		

NUMBER AND STREET: RFD 2 BOX 531

CITY	STATE	CODE NUMBER
Lincolnville	ME 04849	2 0

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
06/20/1951	M	(A) S P N	0	C

OWNER

LAST NAME - OWNER 1	FIRST NAME	MIDDLE
BARTON, ROBIN A		

NUMBER AND STREET: 2396 BELFAST RD

CITY	STATE
LINCOLNVILLE	ME 04849

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
SUV	1999 Toyota	Green (GR)

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
7945 JX	2004	ME	2

VEHICLE IDENTIFICATION NO.: JT3HP10VOX7115168

INSURANCE CO: FARM FAMILY INS. CASUALITY

POLICY NO.: 1814P104601

TOWED BY: NONE

DAMAGE CODES: 1, 8 DAMAGE ESTIMATE: $ 2,000.00

DRIVER (2nd)

DRIVER'S LICENSE NUMBER | STATE

LAST NAME | FIRST NAME | MIDDLE

NUMBER AND STREET

CITY | STATE | CODE NUMBER

DATE OF BIRTH | SEX | LICENSE STATUS (A S P N) | REST/PERM | CLASS

OWNER (2nd)

LAST NAME - OWNER 2 | FIRST NAME | MIDDLE

NUMBER AND STREET

CITY | STATE

VEHICLE (2nd)

VEHICLE TYPE | YEAR AND MAKE | COLOR

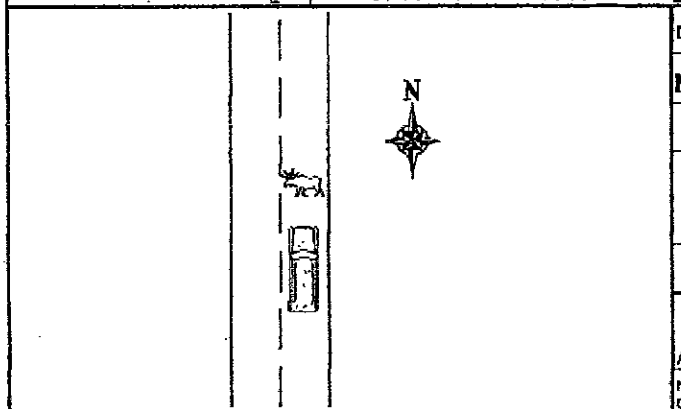
LICENSE PLATE NUMBER | YEAR | ISSUE STATE | NO OCCUP.

VEHICLE IDENTIFICATION NO.

INSURANCE CO

POLICY NO.

TOWED BY: | DAMAGE CODES | $ DAMAGE ESTIMATE



DESCRIPTION: UNIT 1 WAS NORTH BOUND WHEN A MOOSE RAN OUT IN FRONT OF HIM.

AMBULANCE CODES: N/A(1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED: 2

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
BARTON, DAVID A (Driver)	11	11	1	5	1	1	1	1	M	51
MEADE, CHARLES (Passenger)	11	11	1	5	1	1	1	3	M	27

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
GUY DOW	1109	PISCATAQUIS COUNTY SHERIFFS DEPT	BOB YOUNG	8/24/2003

FORM 13:20A
Rev. 4/97

Commercial

INVESTIGATING AGENCY CODE NUMBER ME0110000

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

03-3158

FOR D.P.S. USE ONLY P 17650

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	06	24	2003	Tue	09:15	09:19	09:30

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	ROUTE 15		Monson	21150 (R)	Piscataquis	

AT	BETWEEN NODE NUMBERS		DISTANCE FROM SCENE MILES	TENTHS	TO NUMBER	MILES AND TENTHS TO LANDMARK
						SPECTACAL POND

N W (S) E (circle if one)

S↓ UNIT NO. 1 - Vehicle | TOTAL UNITS INV. 1 | UNIT NO. - | ☐ VEH. 2 ☐ PED. ☐ BIKE

DRIVER

DRIVER'S LICENSE NUMBER	STATE
0732032	ME

LAST NAME	FIRST NAME	MIDDLE
PEARL, DENNIS A		

NUMBER AND STREET: P.O. BOX 76

CITY	STATE	CODE NUMBER
SANGERVILLE	ME 04479	20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
08/05/1940	M	(A) S P N	M,P,Y	B

OWNER

LAST NAME - OWNER 1: PEARL, DENNIS A

NUMBER AND STREET: P.O. BOX 76

CITY: SANGERVILLE STATE: ME 04479

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
3 Axle Single Unit (30)	1999 Int. Harvester/Navistar (42)	Black

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
634-568	2004	ME	1

VEHICLE IDENTIFICATION NO: 1HSZPG3R6KH676843

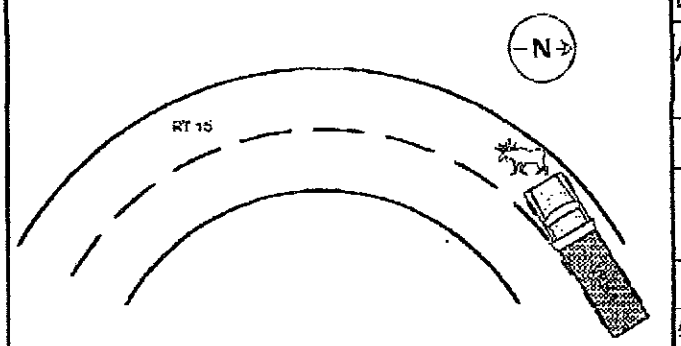
INSURANCE CO. NORTH EAST INS. CO.

POLICY NO: 10181004281

TOWED BY: N/A

DAMAGE CODES: 1, 2 DAMAGE ESTIMATE: $ 2,000.00

EVENT #'s: 9 (TOP), 10 (BOTTOM)



DESCRIPTION: VEH 1 TRAVELING SOUTH UNABLE TO AVOID MOOSE CROSSING IN ROADWAY HIT MOOSE.

AMBULANCE CODES: N/A(1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED: 1

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	26	26	27	28	29	30	31	32	33	34
PEARL, DENNIS A (Driver/Owner)	11	11	2	5	1	1	1	1	M	62

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
MICHAEL GOULD	1107	PISCATAQUIS COUNTY SHERIFFS DEPT	LT. YOUNG	6/24/2003

FORM 13:20A
Rev. 4/97

IN City or Town	Month	Day	Year	Unit Number
Monson	06	24	2003	1

Number of Highway	Or - Name of Street or Highway
ROUTE 15 ROUTE 15	

FOR D.P.S. USE ONLY
17650

STATE OF MAINE
ACCIDENT SUPPLEMENT FORM 1393 REV.(4-96)
POLICE TRAFFIC ACCIDENT REPORT
03-3158

CONFIDENTIAL IF SO MARKED

* Driver Name: PEARL, DENNIS

* Driver License Number: 0732032

* Vehicle ID Number: 1HSZPG3R6KH676843

* Vehicle License State: ME Vehicle Plate Number: 634-568

US DOT#: 751171 ICC#:

Interstate Carrier: (Y/N) N

* Carrier Name: D&H TRUCKING

* Address: P.O. BOX 78

* City, State, Zip Code: SANGERVILLE, ME 04479

Source of Carrier Name: 1
1. Side of Vehicle
2. Shipping papers
3. Driver
4. Log book

Traffic Way: 2
1. Not Physically Divided - Two Way Traffic
2. Divided Highway, Median Strip, w/o Traffic Barrier
3. Divided Highway, Median Strip, w/ Traffic Barrier
4 One Way Traffic

Traffic Access: 1
1 No Control - unlimited Access 2 Full Control - only ramp entry and exit 3 Other

Cargo Body Type: 05
1. Bus (seats 15 plus incl driver)
2. Van/closed box
3 Cargo tank
4. Flatbed
5. Dump
6. Concrete mixer
7. Auto transporter
8. Garbage/refuse
9 Mobile/modular home
10. Other

Vehicle Code: 30

COMBINED Gross Vehicle Weight Rating/From Mfg. Specs: 018 (to nearest thousand)

Register GVW: 006 (to nearest thousand)

Boosted registration GVW: 054 (to nearest thousand)

Hazardous Material Involvement Placarded (Y/N): N *(If yes, complete 1, 2 and 3)*

1 Was HAZMAT Cargo Released (Y/N): N (not including the engine fuel tank) How Transported: T = Tank/Bulk, P = Package

2 Four digit number from placard: and name:

3 HAZMAT CLASS: *(From bottom of placard)* IF ONE DIGIT ONLY, ENTER IN FIRST BOX

Sequence of events: First event 13 *Second event 01 *Third event *Fourth event
(Enter in boxes in order of occurrence) * When necessary

01 Ran off road
02 Jackknife
03 Overturned (rollover)
04 Downhill runaway
05 Cargo loss/shift
06 Explosion or fire
07 Separation of units
08 Collision w/ pedestrian
09 Collision w/ MV in transport
10 Collision w/ parked MV
11 Collision w/ train
12 Collision w/ pedalcycle
13 Collision w/ animal
14 Collision w/ fixed object
15 Collision w/ other object
16 Collision w/ other

Cargo Code: 1 = Unloaded 2 - Partially loaded 3 - - Loaded *(Enter one code only)*

Commodity Code: *(Cargo carried)* and name:

Length *(to nearest foot)*: Overall 025 Trailer length

Distance *(to nearest foot)*: Center of front axle to center of rearmost axle: 018

Distance *(to nearest foot)*: Center of rear drive axle to center of rearmost axle: 004

Oversize permit *(Enter "Y" in all appropriate boxes)*: Weight Y Length Height Width

TRAFFIC ACCIDENT REPORT

STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: MEMSP0E00

007943

FOR D.P.S USE ONLY: P 17897

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	06	28	2003	Sat	09:20	09:23	09:55

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
		RTE 6+15	Monson	21150 (R) (U)	Piscataquis	

AT	BETWEEN NODE NUMBERS		DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
	07056		0 MILES 8 TNTHS		N W (S) E CIRCLE ONE

S↓ **UNIT NO. 1 - Vehicle** TOTAL UNITS INV. 1 UNIT NO. - ☐ VEH. 2 ☐ PED. ☐ BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1	STATE
5431067	ME

LAST NAME	FIRST NAME	MIDDLE
Jefferson, David I		

NUMBER AND STREET: Po Box 103

CITY	STATE	CODE NUMBER
shirley	ME 04485	2 0

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
03/18/1948	M	(A) S P N	A,I,N	B

OWNER

LAST NAME - OWNER 1: Jefferson, David I

NUMBER AND STREET: Po Box 103

CITY: shirley STATE: ME 04485

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
SUV	1996 GMC	White

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP
2449	2003	ME	1

VEHICLE IDENTIFICATION NO. 1GNGK26R0TJ400477

INSURANCE CO. Northeast Insurance Company

POLICY NO 02180060944

TOWED BY: Moose Head Towing

DAMAGE CODES: 1 DAMAGE ESTIMATE: $ 2,000.00

EVENT# 1 2 3 4 5 6 7 8 9 (TOP) 10 (BOTTOM)

DRIVER (2)

DRIVER'S LICENSE NUMBER: STATE:

LAST NAME: FIRST NAME: MIDDLE:

NUMBER AND STREET:

CITY: STATE: CODE NUMBER:

DATE OF BIRTH: SEX: LICENSE STATUS: A S P N REST/PERM: CLASS:

OWNER (2)

LAST NAME - OWNER 2: FIRST NAME: MIDDLE:

NUMBER AND STREET:

CITY: STATE:

VEHICLE (2)

VEHICLE TYPE: YEAR AND MAKE: COLOR:

LICENSE PLATE NUMBER: YEAR: ISSUE STATE: NO OCCUP:

VEHICLE IDENTIFICATION NO.:

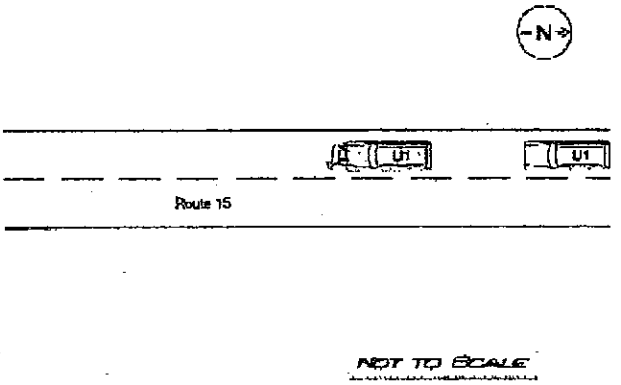
INSURANCE CO:

POLICY NO.:

TOWED BY:

DAMAGE CODES: DAMAGE ESTIMATE: $

EVENT# 1 2 3 4 5 6 7 8 9 (TOP) 10 (BOTTOM)



TOTAL NUMBER OF PERSONS INVOLVED: 1

DESCRIPTION: Unit 1 was traveling South on Route 15, deer ran out in front of Unit 1. Unit 1 struck deer pushing grill into radiator making vehicle unable to be driven.

AMBULANCE CODES N/A(1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Jefferson, David I (Driver/Owner)	11	11	2	5	1	1	1	1	M	55

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE): Trooper Forrest C. Simpson | OFFICER NUMBER: 4387 | TROOP OR DEPARTMENT: MAINE STATE POLICE TROOP E | APPROVED BY: Sgt. Peter Stewart | DATE: 7/2/2003

FORM 13:20A
Rev. 4/97

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: MEMSP0E00
FOR D.P.S. USE ONLY: P
SPE2004-003249
0 3994

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	01	16	2004	Fri	09:25	09:27	10:19

ON: ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	RTE 15	Monson	21150	Piscataquis	

AT: BETWEEN NODE NUMBERS		DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
07057	07056	0 MILES 5 TNTHS	07057	N W S E (CIRCLE ONE)

S↓ UNIT NO. 1 - Vehicle | TOTAL UNITS INV. 1 | UNIT NO. - | ☐ VEH. 2 ☐ PED. ☐ BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1	STATE
3011003	ME

LAST NAME: Hibbard, Juanita | FIRST NAME | MIDDLE

NUMBER AND STREET: Box 284

CITY	STATE	CODE NUMBER
Monson	ME 04464	20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
01/24/1947	F	(A) S P N	A	C

OWNER

LAST NAME - OWNER 1: Hibbard, Juanita | FIRST NAME | MIDDLE

NUMBER AND STREET: Box 284

CITY: Monson | STATE: ME 04464

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR	NO OCCUP.
SUV	1999 Ford	Blue (BL)	2

LICENSE PLATE NUMBER	YEAR	ISSUE STATE
56524	2004	ME

VEHICLE IDENTIFICATION NO. 1FMPU18L5XLB56420

INSURANCE CO. Vermont Mutual

POLICY NO. PA18023155

TOWED BY: Moosehead Towing

DAMAGE CODES	DAMAGE ESTIMATE
1, 2, 3, 4, 9	$ 4,000.00

DRIVER (2nd)

DRIVER'S LICENSE NUMBER | STATE

LAST NAME | FIRST NAME | MIDDLE

NUMBER AND STREET

CITY | STATE | CODE NUMBER

DATE OF BIRTH | SEX | LICENSE STATUS (A S P N) | REST/PERM | CLASS

OWNER (2nd)

LAST NAME - OWNER 2 | FIRST NAME | MIDDLE

NUMBER AND STREET

CITY | STATE

VEHICLE (2nd)

VEHICLE TYPE | YEAR AND MAKE | COLOR

LICENSE PLATE NUMBER | YEAR | ISSUE STATE | NO OCCUP.

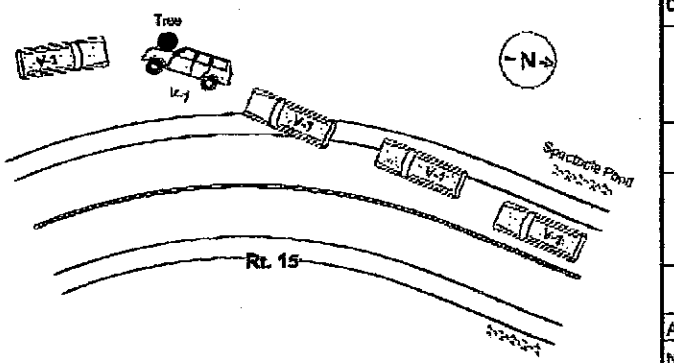
VEHICLE IDENTIFICATION NO.

INSURANCE CO.

POLICY NO.

TOWED BY

DAMAGE CODES	DAMAGE ESTIMATE
	$



TOTAL NUMBER OF PERSONS INVOLVED: 2

DESCRIPTION: Please see attached Form 13.91.

AMBULANCE CODES: Charles A. Dean Ambulance Svc(210);Monson Fire Dept First Respond(232)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Hibbard, Juanita (Driver/Owner)	9	5	2	4	1	1	1	1	F	56
Hibbard, Taylor (Passenger)	11	11	2	5	4	1	1	6	F	2

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER'S NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
Tpr. Marc Poulin	3998	MAINE STATE POLICE TROOP E	Sgt. Mark D. Brooks	1/16/2004

FORM 13:20A
Rev. 4/97

SPE2004-003
D1

ACCIDENT NUMBER	City or Town	Month	Date	Year
	IN Monson	01	16	2004
	Number of Highway ON [ ] and [ ]	Or - Name of Street or Highway RTE 15		
	Driver - Name: Hibbard, Juanita - Vehicle 1			
DO NOT WRITE IN THIS SPACE	Driver - Name			

State of Maine
Supplement to 03994

POLICE
TRAFFIC ACCIDENT REPORT
for
ADDITIONAL DIAGRAMS, DATA OR ANY
NECESSARY STATEMENTS TAKEN

Confidential if so Marked

V-1 southbound on Rt 15. Visibility was poor due to blinding snow. V-1 started skidding on the side of the roadway and attempted to correct. The vehicle went off the roadway and rolled over on its side and struck a tree. V-1 landed back on its wheels.

Other Values:

Weather: blowing snow

Commercial

TRAFFIC ACCIDENT REPORT

STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: ME0110000

04-2931

FOR D.P.S. USE ONLY: F 13721

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	05	18	2004	Tue	06:15	06:18	06:37

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	ROUTE 15	RTE 6+15	Monson	21150 (R)	Piscataquis	

AT	BETWEEN NODE NUMBERS		DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
	07057	07056	0 MILES 3 TNTHS	07056	RT.15 LEDGE CUT

S↓ UNIT NO. 1 - Vehicle | TOTAL UNITS INV. 1 | UNIT NO. - ☐ VEH. 2 ☐ PED. ☐ BIKE

DRIVER

DRIVER'S LICENSE NUMBER	STATE
B260117095506	QC

LAST NAME	FIRST NAME	MIDDLE
BOUCHER, ALAIN		

NUMBER AND STREET: 550 175E RUE

CITY	STATE	CODE NUMBER
Saint George	QC G5Z1B2	

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
09/17/1955	M	(A) S P N	0	A

OWNER

LAST NAME - OWNER 1: R.B.L. INC,

NUMBER AND STREET: 1415 8E RUE

CITY	STATE
Saint Prospe	QC G0M1Y0

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
3 Axle Tractor with Tridem Axle Semi (33)	1998 Mack	White

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP
L164766	2005	QC	1

VEHICLE IDENTIFICATION NO.: 1M1AA18Y8WW083393

INSURANCE CO.: ESSOR INS.

POLICY NO: 690084

TOWED BY: T&W GARAGE

DAMAGE CODES: 11 | DAMAGE ESTIMATE: $ 80,000.00

DRIVER (2)

DRIVER'S LICENSE NUMBER | STATE

LAST NAME | FIRST NAME | MIDDLE

NUMBER AND STREET

CITY | STATE | CODE NUMBER

DATE OF BIRTH | SEX | LICENSE STATUS (A S P N) | REST/PERM | CLASS

OWNER (2)

LAST NAME - OWNER 2 | FIRST NAME | MIDDLE

NUMBER AND STREET

CITY | STATE

VEHICLE (2)

VEHICLE TYPE | YEAR AND MAKE | COLOR

LICENSE PLATE NUMBER | YEAR | ISSUE STATE | NO OCCUP.

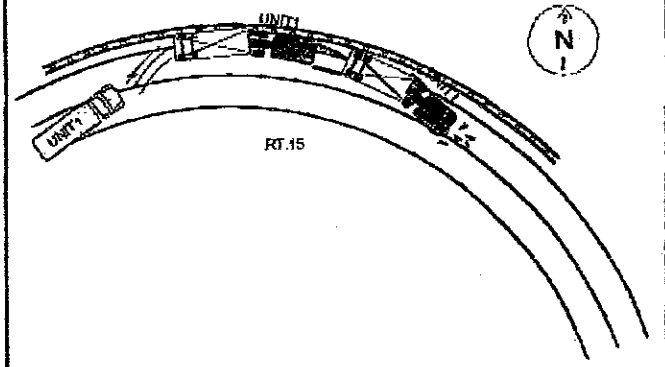
VEHICLE IDENTIFICATION NO.

INSURANCE CO.

POLICY NO.

TOWED BY:

DAMAGE CODES | DAMAGE ESTIMATE



DESCRIPTION: Please see attached Form 13.91.

AMBULANCE CODES: Msyo Regional Hospital(455)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED: 1

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
BOUCHER, ALAIN (Driver)	2	5	1	3	1	1	4	1	M	48

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
ALLEN L EMERSON	1106	PISCATAQUIS COUNTY SHERIFFS DEPT	LT. R. YOUNG	5/18/2004

FORM 13.20A
Rev. 4/97

04-2931
D1

ACCIDENT NUMBER	City or Town	Month	Date	Year
	IN Monson	05	18	2004
	Number of Highway: On ROUTE 15 and ROUTE 15	Or - Name of Street or Highway: RTE 6+15		
	Driver - Name: BOUCHER, ALAIN - Vehicle 1			
DO NOT WRITE IN THIS SPACE	Driver - Name			

State of Maine
Supplement to 13721

POLICE
TRAFFIC ACCIDENT REPORT
for
ADDITIONAL DIAGRAMS, DATA OR ANY
NECESSARY STATEMENTS TAKEN

Confidential if so Marked

UNIT 1 WAS TRAVELING SOUTH WHEN OPERATOR LOST CONTROL OF UNIT 1. UNIT 1 ROLLED ONTO ITS SIDE AND SLIDE INTO GUARDRAIL COMING TO REST IN ROADWAY.

Other Values:

Commercial Unit 1 - Cargo Body Type: BOX TRAILER

IN City or Town	Month	Day	Year	Unit Number
Monson	05	18	2004	1

Number of Highway: ROUTE 15 | ROUTE 15

Or - Name of Street or Highway: RTE 6+15

* Driver Name: BOUCHER, ALAIN

* Driver License Number: B260117095506

* Vehicle ID Number: 1M1AA18Y8WW083393

* Vehicle License State: QC

* Vehicle Plate Number: L164766

FOR D.P.S. USE ONLY: 13721

STATE OF MAINE
ACCIDENT SUPPLEMENT FORM 1393 REV.(4-96)
POLICE TRAFFIC ACCIDENT REPORT
04-2931

CONFIDENTIAL IF SO MARKED

U.S.DOT# 5 0 0 1 6 9 ICC#

Interstate Carrier: (Y/N) Y

* Carrier Name: R.B.L. INC

* Address: 1415 8E RUE

* City, State, Zip Code: SAINT PROSPER, QC G0M1Y0

Source of Carrier Name:
1. Side of Vehicle
2. Shipping papers
3. Driver
4. Log book

Traffic Way: 1
1. Not Physically Divided - Two Way Traffic
2 Divided Highway, Median Strip, w/o Traffic Barrier
3. Divided Highway, Median Strip, w/ Traffic Barrier
4. One Way Traffic

Traffic Access: 1
1 No Control - unlimited Access
2 Full Control - only ramp entry and exit
3. Other

Cargo Body Type: 1 0
1. Bus (seats 15 plus incl. driver)
2. Van/closed box
3 Cargo tank
4. Flatbed
5. Dump
6 Concrete mixer
7. Auto transporter
8. Garbage/refuse
9. Mobile/modular home
10. Other

Vehicle Code: 3 3 BOX TRAILER

COMBINED Gross Vehicle Weight Rating/From Mfg. Specs: (to nearest thousand)

Register GVW: (to nearest thousand)

Boosted registration GVW: (to nearest thousand)

Hazardous Material Involvement Placarded (Y/N) N *(If yes complete 1 2 and 3)*

1 Was HAZMAT Cargo Released (Y/N) N (not including the engine fuel tank) How Transported: T = Tank/Bulk P = Package

2 Four digit number from placard and name:

3 HAZMAT CLASS: *(From bottom of placard)* IF ONE DIGIT ONLY, ENTER IN FIRST BOX

Sequence of events: First event 0 1 *Second event 0 3 *Third event 1 4 *Fourth event

(Enter in boxes in order of occurrence) * - When necessary - *

01 Ran off road
02 Jackknife
03 Overturned (rollover)
04 Downhill runaway
05 Cargo loss/shift
06 Explosion or fire
07 Separation of units
08 Collision w/ pedestrian
09 Collision w/ MV in transport
10 Collision w/ parked MV
11 Collision w/ train
12 Collision w/ pedalcycle
13 Collision w/ animal
14 Collision w/ fixed object
15 Collision w/ other object
16 Collision w/ other

Cargo Code: 1 - Unloaded 2 - Partially loaded 3 - = Loaded *(Enter one code only)*

Commodity Code: *(Cargo carried)* and name:

Length *(to nearest foot)*. Overall 0 8 4 Trailer length 0 4 5

Distance *(to nearest foot)*: Center of front axle to center of rearmost axle:

Distance *(to nearest foot)*: Center of rear drive axle to center of rearmost axle:

Oversize permit *(Enter "Y" in all appropriate boxes)*: Weight Length Height Width

TRAFFIC ACCIDENT REPORT

STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: ME0110000

04-7835

FOR D.P.S. USE ONLY: F 30047

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	10	13	2004	Wed	22:30	22:33	23:00

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	ROUTE 15	RTE 6+15	Monson	21150 (R)	Piscataquis	

AT	BETWEEN NODE NUMBERS	DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
	07057	MILES TNTHS		N W S E (CIRCLE ONE)

N↑ UNIT NO. 1 - Vehicle | TOTAL UNITS INV. 1 | UNIT NO. - | ☐ VEH. 2 ☐ PED. ☐ BIKE

DRIVER

DRIVER'S LICENSE NUMBER	STATE
5345134	ME

LAST NAME	FIRST NAME	MIDDLE
BOULEY,	CHERYL	W

NUMBER AND STREET: 33 NORTH BIRCH STREET

CITY	STATE	CODE NUMBER
Greenville	ME 04441	20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
05/27/1959	F	(A) S P N	0	C

DRIVER (blank)

DRIVER'S LICENSE NUMBER | STATE

LAST NAME | FIRST NAME | MIDDLE

NUMBER AND STREET

CITY | STATE | CODE NUMBER

DATE OF BIRTH | SEX | LICENSE STATUS (A S P N) | REST/PERM | CLASS

OWNER

LAST NAME - OWNER 1	FIRST NAME	MIDDLE
BOULEY,	CHERYL	W

NUMBER AND STREET: 33 NORTH BIRCH STREET

CITY: Greenville STATE: ME 04441

OWNER (blank)

LAST NAME - OWNER 2 | FIRST NAME | MIDDLE

NUMBER AND STREET

CITY | STATE

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
SUV	2004 GMC	

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
89057	2005	ME	2

VEHICLE IDENTIFICATION NO.: 1GKET16S246208612

INSURANCE CO.: ONE BEACON INSURANCE CO

POLICY NO.: ASG4832036

TOWED BY: N/A

DAMAGE CODES: 2 | DAMAGE ESTIMATE: $ 1,100.00

EVENT # IMPACT: 9 (TOP), 10 (BOTTOM)

VEHICLE (blank)

VEHICLE TYPE | YEAR AND MAKE | COLOR

LICENSE PLATE NUMBER | YEAR | ISSUE STATE | NO OCCUP.

VEHICLE IDENTIFICATION NO.

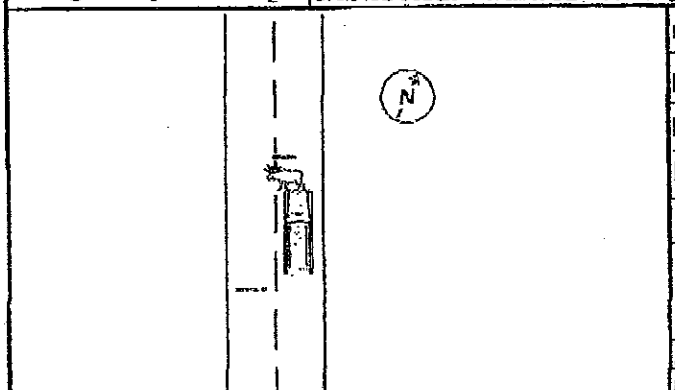
INSURANCE CO.

POLICY NO.

TOWED BY:

DAMAGE CODES | DAMAGE ESTIMATE $

EVENT # IMPACT: 9 (TOP), 10 (BOTTOM)



TOTAL NUMBER OF PERSONS INVOLVED: 2

DESCRIPTION: UNIT 1 WAS TRAVELING NORTH ON ROUTE 15 WHEN A MOOSE TRIED TO CROSS THE ROAD IN FRONT OF HER. SHE WAS UNABLE TO STOP IN TIME AND STRUCK THE MOOSE.

AMBULANCE CODES: N/A (1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.):

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
BOULEY, CHERYL W (Driver/Owner)	11	11	2	5	1	1	1	1	F	45
BOULEY, AMANDA (Passenger)	11	11	2	5	1	1	1	3	F	23

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
JAMES B. KANE	1108	PISCATAQUIS COUNTY SHERIFFS DEPT	LT. ROBERT YOUNG	10/20/2004

FORM 13:20A
Rev. 4/97

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: ME0110000
04-9682
FOR D.P.S. USE ONLY: 38309

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	12	31	2004	Fri	08:30	08:31	08:42

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	ROUTE 15	RTE 6+15	Monson	21150	Piscataquis	

AT	BETWEEN NODE NUMBERS	DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
	07057	MILES TENTHS		N W S E (CIRCLE ONE)

S UNIT NO. 1 - Vehicle | TOTAL UNITS INV. 1 | UNIT NO. - | VEH. 2 | PED | BIKE

DRIVER

DRIVER'S LICENSE NUMBER: 188106945 | STATE: CT
LAST NAME: MCCAGUE, | FIRST NAME: AARON | MIDDLE: D
NUMBER AND STREET: 36 PEPPERMILLDR.
CITY: West Haven | STATE: CT | CODE NUMBER: 06516 | 0 7
DATE OF BIRTH: 06/29/1986 | SEX: M | LICENSE STATUS: (A) S P N | REST/PERM: 0 | CLASS: C

OWNER

LAST NAME - OWNER 1: MCCAGUE, | FIRST NAME: ETHAN | MIDDLE: J
NUMBER AND STREET: 36 PEPPERMILL DR.
CITY: West Haven | STATE: ME 06516

VEHICLE

VEHICLE TYPE: Pickup Truck | YEAR AND MAKE: 2000 Toyota | COLOR: Black
LICENSE PLATE NUMBER: 6CT-534 | YEAR: 2005 | ISSUE STATE: CT | NO OCCUP.: 2
VEHICLE IDENTIFICATION NO.: 4TAWN72NXYZ598601

INSURANCE

INSURANCE CO.: STATE FARM INS
POLICY NO.: 19-0059-C12-07

TOWED BY: ABBOT TOWING
DAMAGE CODES: 1, 7, 8 | DAMAGE ESTIMATE: $ 2,500.00

DRIVER (2nd)

DRIVER'S LICENSE NUMBER | STATE
LAST NAME | FIRST NAME | MIDDLE
NUMBER AND STREET
CITY | STATE | CODE NUMBER
DATE OF BIRTH | SEX | LICENSE STATUS: A S P N | REST/PERM | CLASS

OWNER (2nd)

LAST NAME - OWNER 2 | FIRST NAME | MIDDLE
NUMBER AND STREET
CITY | STATE

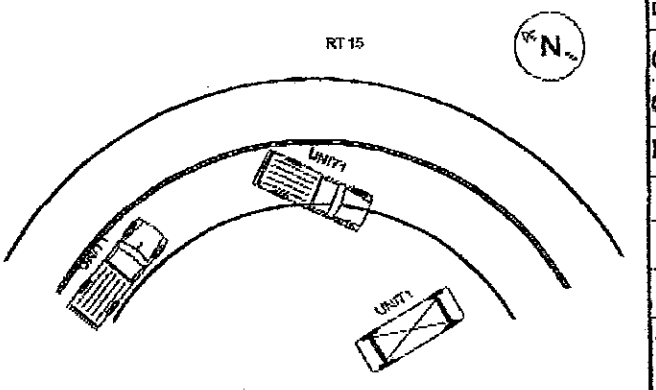
VEHICLE (2nd)

VEHICLE TYPE | YEAR AND MAKE | COLOR
LICENSE PLATE NUMBER | YEAR | ISSUE STATE | NO OCCUP.
VEHICLE IDENTIFICATION NO.

INSURANCE (2nd)

INSURANCE CO
POLICY NO

TOWED BY:
DAMAGE CODES | DAMAGE ESTIMATE: $



TOTAL NUMBER OF PERSONS INVOLVED: 2

DESCRIPTION: UNIT 1 WAS TRAVELING SOUTH WHEN OPERATOR LOST CONTROL DUE TO POOR ROAD CONDITIONS. UNIT 1 STARTED SLIDING SIDEWAYS INTO DITCH ROLLING OVER ONTO ITS SIDE.

AMBULANCE CODES: N/A(1000)
NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.):

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
MCCAGUE, AARON D (Driver)	11	11	2	5	1	1	1	1	M	18
MCCAGUE, SEAN E (Passenger)	11	11	2	5	1	1	1	3	M	17

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE): ALLEN L EMERSON | OFFICER NUMBER: 1108 | TROOP OR DEPARTMENT: PISCATAQUIS COUNTY SHERIFFS DEPT | APPROVED BY: LT. R. YOUNG | DATE: 12/31/2004

FORM 13:20A
Rev. 4/97

JN:	JN 1381.01	Gorrill-Palmer Consulting Engineers, Inc.
Project Description:	Plum Creek Re-zoning Proposal	P.O. Box 1237
Project Location:	Moosehead Lake Region of Maine	15 Shaker Road
Date:	March 9, 2006	Gray, Maine 04039

Hotel
Land Use Code (LUC) 310

Numer of Rooms: 750

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	T = 8.95 (X) - 373.16	6339	50%	50%	3170	3169
AM Peak Adjacent Street	Ln(T) = 1.24 Ln(X) - 2.00	497	60%	40%	298	199
PM Peak Adjacent Street	---	---	55%	45%	---	---
AM Peak hour of Generator	Ln(T) = 0.87 Ln(X) + 0.02	324	55%	45%	178	146
PM Peak Hour of Generator	Ln(T) = 1.00 Ln(X) - 0.58	420	60%	40%	252	168
Saturday	T = 9.62 (X) - 294.56	6920	50%	50%	3460	3460
Saturday Peak Hour of Gen.	T = 0.69 (X) + 4.32	522	55%	45%	287	235

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	T = 8.17 (X)	6128	50%	50%	3064	3064
AM Peak Adjacent Street	T = 0.56 (X)	420	60%	40%	252	168
PM Peak Adjacent Street	T = 0.59 (X)	443	55%	45%	243	200
AM Peak Hour of Generator	T = 0.52 (X)	390	55%	45%	215	175
PM Peak Hour of Generator	**T = 0.61 (X)**	**458**	**60%**	**40%**	**275**	**183**
Saturday	T = 8.19 (X)	6143	50%	50%	3071	3072
Saturday Peak Hour of Gen.	T = 0.72 (X)	540	55%	45%	297	243

* Percentages rounded to nearest 5%

JN:	1381.01	Gorrill-Palmer Consulting Engineers, Inc.
Project Description:	Plum Creek Re-zoning Proposal	P.O. Box 1237
Project Location:	Moosehead Lake Region of Maine	15 Shaker Road
Date:	March 9, 2006	Gray, Maine 04039

Single-Family Detached Housing
Land Use Code (LUC) 210

Dwelling Units: 975

Average Rate

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	T = 9.57 (X)	9331	50%	50%	4666	4665
AM Peak Hour of Generator	T = 0.77 (X)	751	25%	75%	188	563
PM Peak Hour of Generator**	**T = 1.02 (X)**	**995**	**65%**	**35%**	**647**	**348**
AM Peak Hour of Adj. Street Traffic	T = 0.75 (X)	731	25%	75%	183	548
PM Peak Hour of Adj. Street Traffic	T = 1.01(X)	985	65%	35%	640	345
Saturday	T = 10.10 (X)	9848	50%	50%	4924	4924
Saturday Peak Hour of Gen.	T = 0.94 (X)	917	55%	45%	504	413

* Percentages rounded to nearest 5%

Fitted Curve Equation

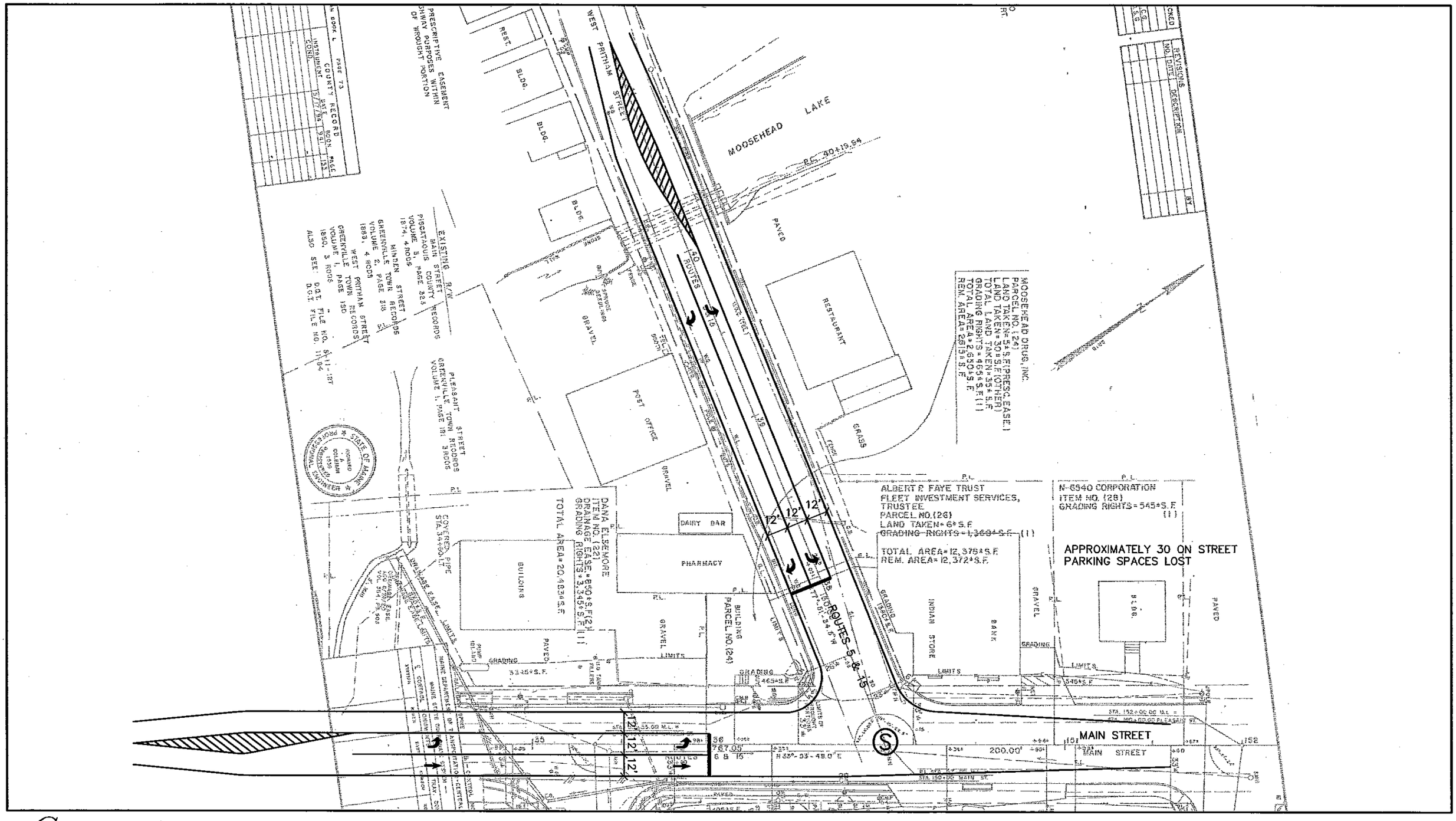
Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	Ln(T) = 0.92 Ln(X) + 2.71	8449	50%	50%	4225	4224
AM Peak Hour of Generator	T = 0.70 (X) + 12.05	695	25%	75%	174	521
PM Peak Hour of Generator	Ln(T) = 0.89 Ln(X) + 0.61	842	65%	35%	547	295
AM Peak Hour of Adj. Street Traffic	T = 0.70 (X) + 9.43	692	25%	75%	173	519
PM Peak Hour of Adj. Street Traffic	Ln(T) = 0.90 LN(X) + 0.53	832	65%	35%	541	291
Saturday	Ln(T) = 0.94 Ln(X) + 2.63	8951	50%	50%	4476	4475
Saturday Peak Hour of Gen.	T = 0.89 (X) + 10.93	879	55%	45%	483	396

* Percentages rounded to nearest 5%

** Actual volume used for analysis and included in the text of the report is higher do to individual rounding of rates for separate sites

Road Improvements - Alternative 1

Figure No. 8A



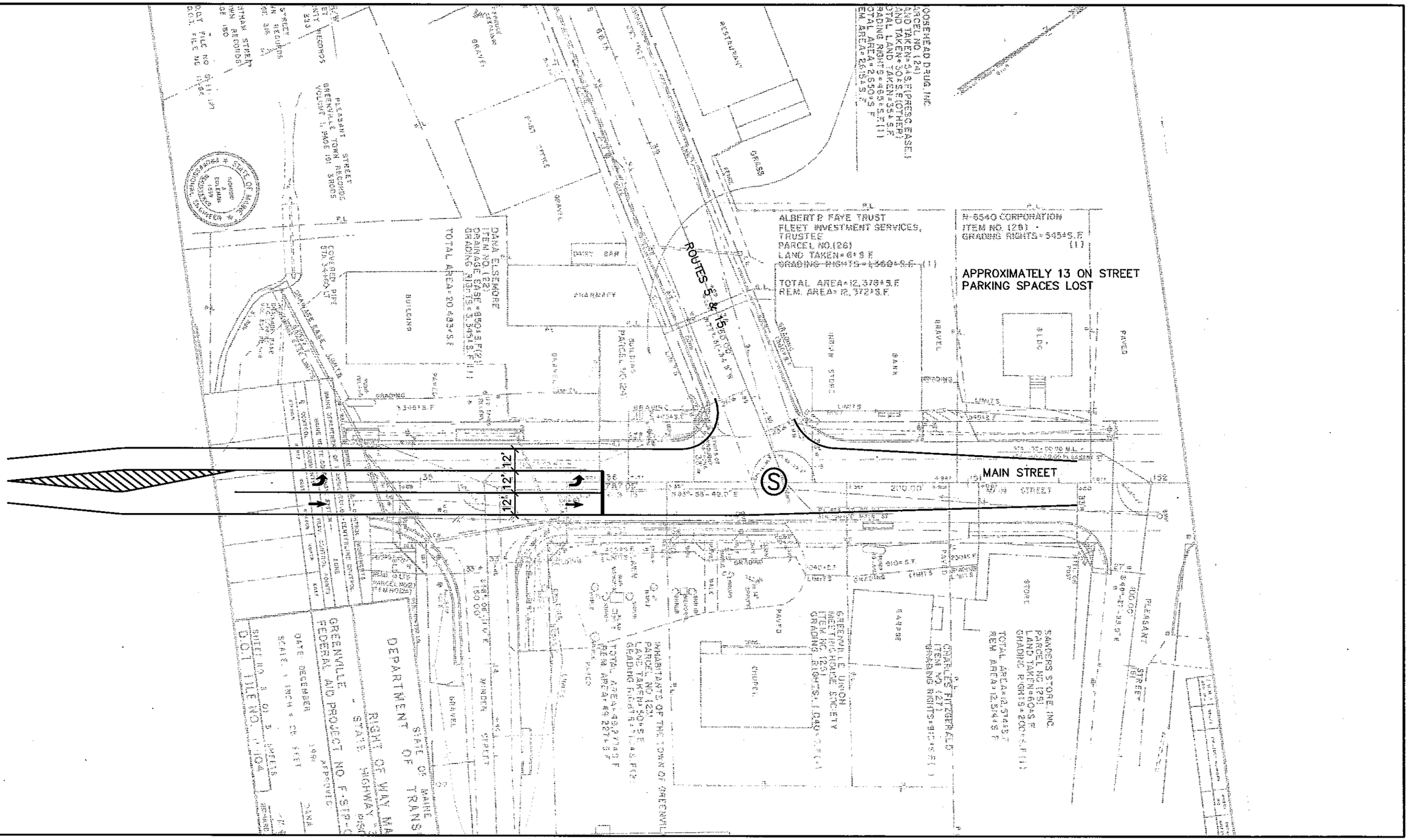
GP Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

PLUM CREEK'S REZONING PROPOSAL
MOOSEHEAD LAKES REGION, MAINE

Design: DAB	Scale:	1" = 50'
Draft: ZRJ	Date:	MARCH 2006
Checked: RCN	File Name:	1381-01_pbase.dwg

Road Improvements - Alternative 2 - 50% of Development Traffic Arriving During Peak Hour

FIGURE NO. 8B



GP Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services

PO Box 1237
15 Shaker Road
Gray, ME 04039

207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

PLUM CREEK'S REZONING PROPOSAL
MOOSEHEAD LAKES REGION, MAINE

Design: DAB
Draft: ZRJ
Checked: RCN

Scale: 1" = 50'
Date: MARCH 2006
File Name: 1381-01_pbase_alt2.dwg

Future Maine DOT Roadway Improvements

Figure No. 1

PIN 12917.00

PIN 11829.00

PIN 11274.00

PIN 12846.00

PIN 11211.00
COLLECTOR CORRIDOR: BEGINNING AT ROUTE 201 IN JACKMAN AND EXTENDING EASTERLY TO MAIN ST IN GREENVILLE. PROJECT WILL RECONSTRUCT 8.15 MILES OF "BACKLOG", BEGINNING AT ROUTE 201 AND EXTENDING EASTERLY 46.59 MILES WITH SKIPS BETWEEN SECTIONS.

PIN 11273.00

PIN 12605.23
PIN 13053.00
PIN 11136.00

FUTURE SHOULDER IMPROVMENTS

PLUM CREEK'S REZONING PROPOSAL, MOOSEHEAD LAKES REGION, MAINE

GP Gorrill–Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
Fax: 207-657-6912
mailbox@gorrillpalmer.com
www.gorrillpalmer.com

Miles
3 1.5 0 3 6

JN: 1381.01
DATE: MAR 2006
SOURCE: MAINE GIS WEBSITE