

Perth-Andover Redevelopment Functional Infrastructure Plan

Perth-Andover, NB

Final Report

Prepared for:

Village of Perth-Andover
and
Province of New Brunswick

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EXECUTIVE SUMMARY

Project Background

The Village of Perth-Andover has suffered significant hardship as a result of the devastating flood events of 1976, 1987, 1993, and 2012 that left many homes, business, and public facilities severely damaged. Following the 2012 flood, the largest on record, a disaster financial assistance program was offered to relocate affected residential land owners, but businesses and institutions were not eligible for this program and, to date, no new funding programs have been created for compensation or relocation of these types of properties. The Village of Perth-Andover and Province of New Brunswick initiated this infrastructure plan to evaluate the feasibility of redeveloping the Village's flood prone areas, with focus on the Perth downtown business improvement area, the Hospital access route, and commercial areas in Andover. The general objective is to raise the elevation of the development areas and transportation infrastructure to a level that will mitigate against future flood events and restore confidence in investment in the downtown.

In consultation with the Village and Province, six key project goals have been established that have guided the preparation and evaluation of the redevelopment options. These are:

1. Raise the downtown business area to an elevation that will realistically withstand future flooding events, considering impacts of climate change;
2. Maintain access to the Hospital during flood events by raising Route 105 above the design flood level;
3. Identify a future bridge height that is clear of the design flood level and a location that provides good transportation mobility while not diminishing the character of the downtown;
4. Maintain convenient access and connections from the existing and future bridge to the downtown, Route 105, and Route 130;
5. Address the poor geometry at the Route 105/Route 109 intersection; and
6. Review options for commercial redevelopment on the Andover side of the River.

The scope of this infrastructure plan included the investigation and preparation of a feasible redevelopment option that satisfies the above goals, complete with a package of concept drawings, construction estimates, and identification of land requirements.

Design Flood Elevation

Perth-Andover has experienced five major floods in the past 40 years. The worst of these was the 2012 ice jam flood, which reached an elevation of 80.24m. For this infrastructure planning project, a minimum design elevation of **82.25m** has been selected for all redeveloped lands and critical roadways. This elevation is 2m above the 2012 flood level and also exceeds a 1-in-100 year flood level of 81.7m estimated in a 2012 study by RV Anderson Associates Limited. Prior to detailed design, it is recommended that a more detailed flood modelling exercise be completed to investigate various climate scenarios and the impacts to the river channel of raising the downtown.

Recommended Network Option

Five network options were developed for review with the Village and Province. The options mainly varied by the location of a new bridge, as the location and height of the bridge have significant implications for how the surrounding lands are developed and connected. Following a meeting with community stakeholders, a preferred option, referred to as Option A, was selected that would have the new bridge located just downstream of the existing bridge.

Preferred Option: Option A

In Option A, the bridge terminates in an approach fill on the east side of the river which creates a separation between the north and south areas of the existing downtown. It is proposed to construct the new downtown to the south of the bridge and reserve the area to the north of the bridge for future commercial or residential development. The advantages of this bridge option are that it provides direct connections to the downtown and provides convenient transportation access for all dominant traffic demands. It also maintains pedestrian connectivity between key community nodes and maintains a river crossing connection for the Trans Canada and International Appalachian Trails. Key components of Option A are as follows:

- A new downtown concept that covers an area of 5.7 ha and provides 43 lots for commercial uses and low to medium density residential housing;
- Reconstruction of municipal services to follow the new public right-of-ways of the development area;
- Realignment of Route 105 along the existing trail alignment and raised to elevation 82.25m;
- Reconfiguration of hospital access and parking lots to blend with the new roadway alignments;
- Construction of a 900m roadway connection between the east end of the bridge and Gulch Road that would allow the existing Route 105/Route 109 intersection to be eliminated;
- Realignment of the trail along the river;
- Construction of a future bridge just south of the existing bridge but at a higher elevation such that the bottom of the girders will be above 82.25m.
- Construction of a new connector road on the west side, linking Route 130 to the west end of the new bridge.

A three-phase construction strategy has been proposed that aims to minimize impacts to existing active properties and sequences the relocation of buildings to the new downtown. A fourth phase is the construction of the new bridge, would might occur concurrently with Phase 3, or at some future date. The development concept has been prepared so that it can work with either the existing bridge or future bridge.

Preferred Option: Option B

Selecting a location of a new bridge is a major decision that requires significant planning and investigation effort. Recognizing that this decision would not be made within the timeframe of this study, the redevelopment plan was conceived in a manner that would allow for an alternative bridge location further upstream. This is referred to as Option B, in which the new bridge would be located 500m upstream from the existing bridge. This provides an alignment that ties directly into Route 109 (Gulch Road) on the east side and Legion Street on the west side. Advantages of this option are that the new bridge would be located high above the river and flood plain and provides a direct route between the TCH and Route 109 east to Plaster Rock. A disadvantage of Option B is that river crossing traffic is moved away from the downtown centre which will cause some reduction of activity in the downtown and

could impact the business case of future investment in downtown properties. Another disadvantage is that the bridge span is 611m, approximately 40% longer than the bridge span in Option A, resulting in higher costs for the bridge component.

Andover Development Options

In addition to the redevelopment of the downtown business improvement area, options for addressing commercial and institutional areas on the Andover side were also reviewed. Twenty eight properties on the Andover side were damaged by the 2012 flood, comprising 20 commercial/rental properties, 5 church/community properties, and 3 government properties including the Village Hall, fire hall, and courthouse. Two areas on the Andover side of the river were identified as potential development options for relocation of buildings and re-establishment of commercial/institutional properties as part of a flood compensation program. These options are described below:

- **West Riverside Development Area** - This area is located along West Riverside Drive between the existing bridge and Legion Street and occupies approximately 5 hectares of land. A preliminary concept plan shows 9 large commercial/institutional lots situated along a new local street parallel to West Riverside Drive. The development area would be filled in and raised to the 82.25m design level.
- **F. Tribe Road Development Area** - This area is located on the east side of F. Tribe Road between Route 109 and the NBDTI District office. The 3 hectare property is currently owned by the Province. A preliminary concept shows 13 lots situated along F. Tribe Road and a new crescent street. The lots would be intended for commercial uses and would serve as an extension of the existing commercial area north of Route 109. The area is well out of the flood prone zone and is more economical to develop than the West Riverside Drive and Perth downtown areas given that large quantities of fill will not be required and accommodation of existing properties during construction is not required. However, extension of municipal services will be required.

Property Acquisition

The implementation of the downtown redevelopment plan and transportation network will require significant property acquisition. It is estimated that a total of 171 properties will be impacted and approximately 16.1 hectares of property will need to be acquire. Flood mitigation work is expected to impact 131 properties and require 10.5 hectares or land acquisition while transportation improvements are estimated to impact 40 properties and require 5.6 hectares of land acquisition.

On the Andover side, the F. Tribe Road development would require approximately 3 hectares to be acquired from the NBDTI property. The West Riverside Development would require approximately 5 hectares of land.

Opinion of Probable Construction Costs

Opinion of probable construction costs were prepared for the infrastructure elements of the project for planning purposes. These are summarized below for Option A and Option B, with the cost of a new bridge shown separately. These estimates include all infrastructure works and engineering, but exclude the cost of property acquisitions, business compensation/buy-outs, and tax.

Project Component	Network Option A	Network Option B
Downtown Redevelopment and Transportation Improvements	\$30.0 million	\$30.0 million
New Bridge	\$41.9 million	\$57.6 million
Total	\$71.9 million	\$87.6 million

Construction estimates for the development options in Andover, not included in the above, are as follows:

- West Riverside Development Area = \$5.5 million
- F. Tribe Road Development Area = \$1.5 million

Additionally, building relocations on the Andover side is estimated to cost \$3.6 million.

Next Steps

A number of follow-up technical studies and investigations will be required to advance the redevelopment concept to the next stage of approvals and design. These include, but may not be limited to:

- Business Case for Federal Funding
- Flood Modelling Study
- Downtown Secondary Plan
- Environmental Impact Assessment
- Topographic Survey
- Geotechnical Investigation
- Bridge Planning

1.0 Introduction

1.1 Project Background

The Village of Perth-Andover has suffered significant hardship as a result of the devastating flood events of 1976, 1987, 1993, and 2012 that left many homes, business, and public facilities severely damaged. Following the 2012 flood, the largest on record, a disaster financial assistance program was offered to relocate affected residential land owners, but businesses and institutions were not eligible for this program and no new funding programs were created for compensation or relocation of these types of properties. Areas and buildings critically damaged by the 2012 flood include the downtown business improvement area, Hotel-Dieu of St. Joseph, schools, the Village Hall, the public library, churches, and residential rental properties. A total of 68 non-residential properties were affected. A number of damaged businesses chose not to re-open while others, using their own financial resources, relocated to the highway commercial area in the area surrounding F. Tribe Road and the Trans Canada Highway. This has resulted in many abandoned buildings and vacant properties in what was once a thriving downtown business district. Businesses that do remain in the flood prone areas are hesitant to flood-proof, relocate, or re-invest in their buildings given uncertainty around a potential compensation program and the risk of another flood event.

The downtown area has served as the heart of the community for decades and community and provincial leaders are committed to seeing the downtown return to a vibrant community and regional centre. Therefore, the Village of Perth-Andover and Province of New Brunswick initiated this infrastructure plan to evaluate the feasibility of redeveloping the Village's flood prone areas, with focus on the Perth downtown business improvement area and Hospital access route. The general objective is to raise the elevation of the downtown development areas and transportation infrastructure to a level that will mitigate against future flood events and restore confidence in investment in the downtown. The plan also includes transportation mobility and safety improvements that will be phased in at the same time as the downtown redevelopment, while also considering the eventual replacement of the bridge.



1.2 Project Goals

In consultation with the Village and Province, six key project goals have been established that have guided the preparation and evaluation of network options. These are:

1. Raise the downtown business area to an elevation that will realistically withstand future flooding events, considering impacts of climate change;
2. Maintain access to the Hospital during flood events by raising Route 105 above the design flood level;
3. Identify a future bridge height that is clear of the design flood level and a location that provides good transportation mobility while not diminishing the character of the downtown;
4. Maintain convenient access and connections from the existing and future bridge to the downtown, Route 105, and Route 130;
5. Address the poor geometry at the Route 105/Route 109 intersection; and
6. Review options for a commercial centre on the Andover side of the River.

1.3 Project Scope

The primary objectives and outcomes of this planning assignment were as follows:

- Identify a feasible plan to raise the elevation of downtown Perth and address transportation improvements;
- Prepare functional plan drawings showing plan layouts, profiles, and elevations;
- Develop a construction phasing plan;
- Prepare a cost estimate of the infrastructure works;
- Identify impacts to properties, both as part of the development plan and transportation improvement plan; and
- Prepare plans and estimates for development options in Andover.

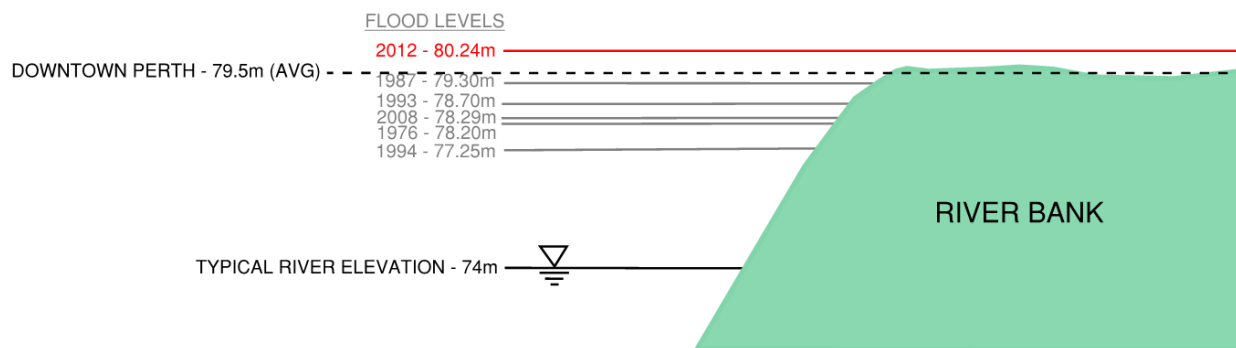
2.0 Information Gathering and Design Inputs

2.1 Mapping

Base mapping assembled for this project included aerial photography, Lidar digital elevation model of the existing ground surface, wetland and watercourse mapping, SNB property boundaries and ownership information, and drawings of existing municipal services. Topographic surveys were also completed of critical elevations and municipal infrastructure.

2.2 Design Flood Elevation

Prior to the construction of the Beechwood Dam in 1955, anecdotal evidence suggests the St. John River had average surface elevation of 68-69m in Perth Andover. Today, as part of the head pond, the river has a typical surface elevation in the order of 74m. Perth-Andover has experienced five major floods in the past 40 years to the elevations illustrated below. The worst of these was the 2012 ice jam flood, which reached an elevation of 80.24m, a level 0.94m higher than previous highest flood in 1987.



Following the 2012 flood, the Department of Environment and Local Government (DELG) retained R.V. Anderson Associates Limited (RVA) to evaluate flood risk due to ice jams at Perth-Andover by performing stage-frequency analyses of open-water, ice influenced, and combined water levels. Considering these factors, RVA estimated an annual 1% exceedance probability (1 in 100 year) water level of 80.7m (near the highway bridge). The 90% upper confidence limit of this estimate is 81.7m, which RVA suggests should be used when determining flood risk for planning purposes.

For this infrastructure planning project, a minimum design elevation of **82.25m** has been selected for all redeveloped lands and critical roadways. This is 2m above the 2012 flood level and 0.55m above the 81.7m elevation recommended by RVA. The Study team has consulted with the DELG during the course of this project to discuss the assumptions and methodology used in the selection of a design flood elevation. Although it is agreed that the RVA methodology is sound, the work did not include future impacts of climate change. It was agreed that application of a simulation modelling approach that could analyse various climatic scenarios would provide a more robust forecast of future flood levels. Another important question is what impact does adding fill to the east side of the river have on the west side during a flood event (i.e. will filling in the east flood plain have any measurable impacts to the elevation of flood waters elsewhere?). This scenario could also be modelled using simulation.

Clarkson University in New York has developed a simulation model of the St. John River as part of previous work for NB Power and has successfully replicated the conditions of the 2012 flood. Prior to detailed design, it is recommended Clarkson be retained to model various climate scenarios and the impacts of raising the downtown.

2.3 Traffic Data

Traffic volume data were collected at three intersections - at each end of the bridge and at the Route 105/Route 109 intersection. The volumes were collected on Thursday, September 15, 2016 during the morning, noon, and evening peak periods. The data were summarized to determine peak hour and daily traffic volumes at each location. The results are presented in **Section 3.4**.

2.4 Bridge Criteria

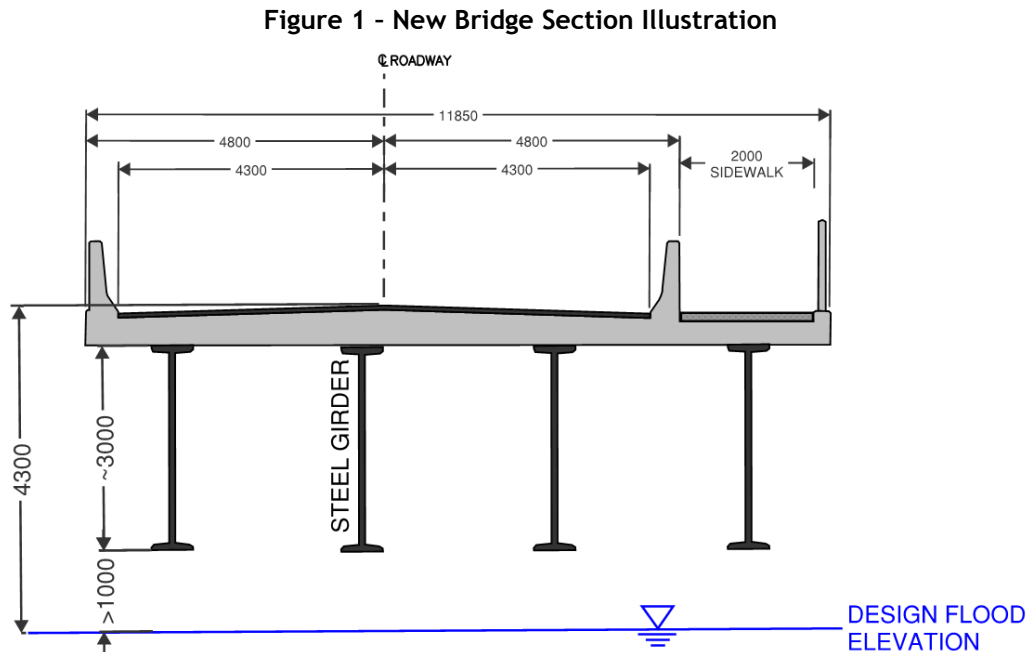
The existing Perth-Andover Bridge is a steel truss bridge with a span of nearly 300m. The existing steel superstructure was constructed in 1958, but portions of the bridge piers date back to 1901. The bridge is likely approaching the end of its design life; however, NBDTI has indicated that there are no immediate plans for replacement. The steel truss configuration increases the clearance underneath the structure compared to girder-type bridges, as the majority of structural components are above the bridge deck. The bridge deck has an elevation of 80m and 80.5m on the west and east banks of the river, respectively, and an elevation of 82.15m at the middle of its span. The bridge has been raised following previous flooding events, but DTI has indicated that the bridge cannot be raised further. The bridge's current elevations place it at risk of being damaged or lost should a future flood event exceed the 2012 level. Therefore, it is a matter of public safety that the bridge replacement be considered as part of this project.

It is envisioned that a new bridge will be included with this infrastructure improvement package, but timing of implementation may lag other components of the project due to time required for design, approvals, and construction.

The bridge was a key element when evaluating network options as its elevation and location have a significant impact on the surrounding lands and road network. A meeting was held with DTI on August 31, 2016 to discuss preliminary assumptions for bridge type, minimum elevation, and other factors. The following summarize the bridge inputs that were used in preparation of the infrastructure options:

1. The new bridge will likely be constructed of either steel or concrete girders. Steel girders provide the advantage of spanning long distances, resulting in fewer piers, but as the span increases, so does the depth of the girder. Concrete girders tend to be shallower but span shorter distances. It has been assumed that the bridge will have steel girders over the water and concrete girders for any spans over land. Bridge depths are assumed as follows:
 - a. Steel Girder Depth = 3m
 - b. Concrete Girder Depth = 1.5m
 - c. Deck and Pavement Thickness = 0.3m
2. DTI has requested that the bottom any girder must be at least 1m above the design flood level. When first developing bridge options, the provincially set design flood elevation of 81.25m was used, which corresponds to a minimum elevation of 82.25m for the bottom of girders. This elevation is subject to review during design and additional flood modelling.
3. For spans over land, a minimum separation of 7.5m has been assumed between the bridge deck and the finished grade beneath. This allows for roads to be placed under the bridge with some flexibility for depths of concrete girders and roadway geometrics.
4. The bridge is to have a minimum grade of 0.5% for drainage purposes.

Additionally, it is envisioned that a new bridge will have two travel lanes and a sidewalk on one side, preferably separated from the vehicle lanes by a concrete barrier. **Figure 1** shows a representative bridge section to illustrate approximate dimensions.



2.5 Municipal Services

The Village provided available drawings of existing municipal services within the project limits. Hatchard Engineering supplemented this information with field surveys and drawings showing locations of water and sanitary services and known inverts.

2.6 Property Information

Property boundaries, identification numbers, and ownership information was obtained from the provincial registry. The Village provided input on property use and active status (e.g. active, abandoned, or vacant).

2.7 Stakeholder Consultation

A project steering committee was assembled consisting of Village staff and elected officials, Regional Development Corporation, and the consulting team. Various government departments and members were also consulted throughout the course of this project, including:

- Department of Transportation and Infrastructure (Highways and Buildings)
- Department of Environment and Local Government
- Department of Justice and Public Safety
- The local MLA and MP.

Moving forward, the Provincial government will be implementing a project organizational structure that will formally engage various departments as members of the internal project team.

3.0 Existing Conditions

3.1 Downtown Development

The downtown area, also referred to as the Business Improvement Area (BIA) encompasses nearly 6 hectares on either side of the bridge, bounded by the Irving Mainstop in the south, Village Automotive in the north, the river to the west and the TC Trail to the east (refer to Drawing # C101). There are currently 30 active properties in the BIA, comprising a mix of commercial, institutional and residential properties, as listed in **Table 1**. These are summarized as follows:

- 14 Commercial-Only properties, including the Post Office, Bank of Nova Scotia and Bank of Montreal, the Irving Mainstop, and various other services, shops, and restaurants;
- 5 Commercial properties with Residential Rentals, typically ground floor commercial and rear or upper floor residential units;
- 7 Residential Rental properties, including non-profit housing;
- 3 Residential properties (owner occupied); and
- The Public Library.

An analysis of existing property use throughout the BIA was completed to classify the status of properties as active, vacant or abandoned. Through this process it was determined that there are approximately 30 properties in the BIA that are either vacant or contain abandoned buildings, which represents approximately 29% (1.65 ha) of the total area of the BIA. Active commercial and residential properties comprise 34% (2.0 ha) of the BIA lands, while the remaining 37% (2.2 ha) is public right-of-way. The allocation of property use by area is summarized in **Figure 2**. Mapping of property status is provided in Drawing #C102 and #C103 for the BIA and surrounding areas. Identification of vacant and abandoned properties was an important step in determining how to phase in the redevelopment with least disruption to active businesses and residences.

Figure 2 - Property Status in the BIA

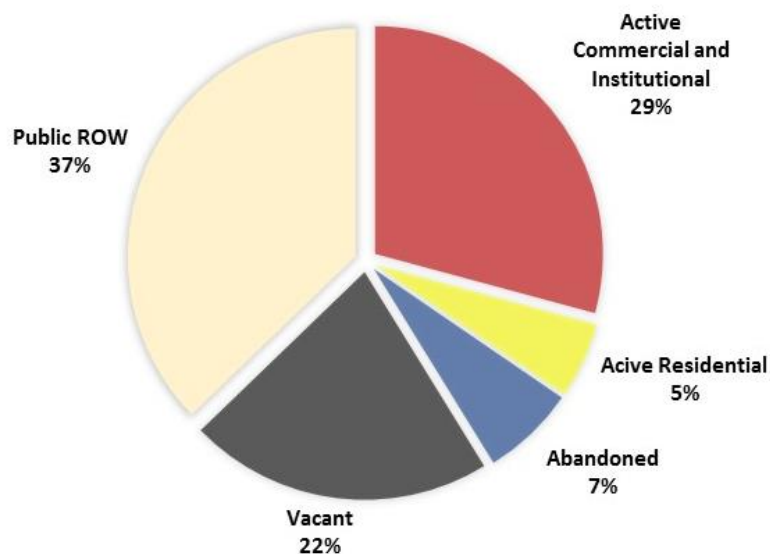


Table 1 - Active Properties in the Business Improvement Area (Downtown)

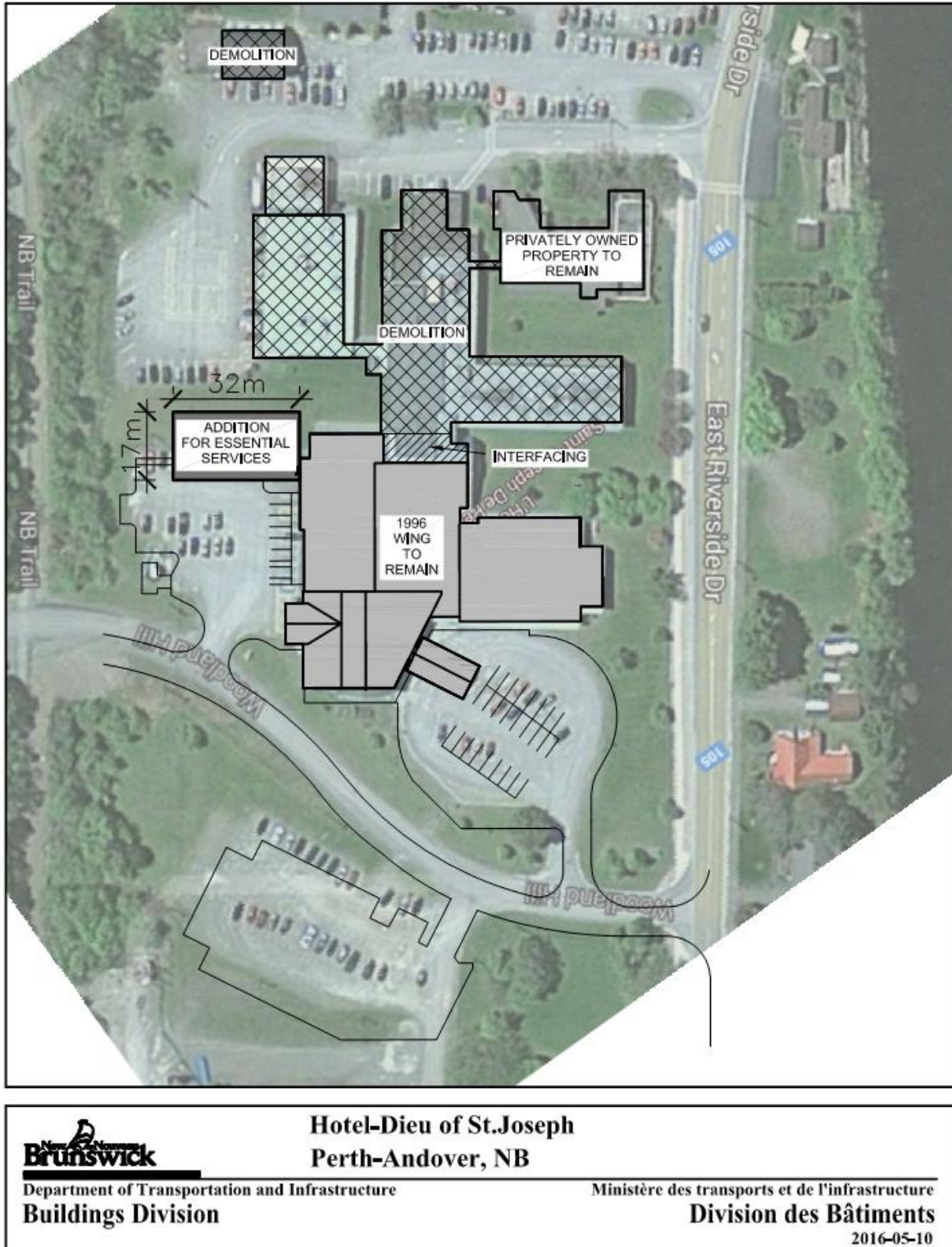
Address	Owner	Property Use
580 East Riverside Drive	Gov't of Canada (Post Office)	Commercial
583 East Riverside Drive	Perth-Andover Mainstop Inc.	Commercial
630 East Riverside Drive	Benjoy Inc	Residential Rental
634 East Riverside Drive	Raymond Durepos	Residential Rental
642 East Riverside Drive	Village of Perth-Andover	Institutional
686 Perth Main Street	Bank of Montreal	Commercial
716 Perth Main Street	Shawcor Inc.	Commercial
728 Perth Main Street	Bank of Nova Scotia	Commercial
756 Perth Main Street	P A Futuria Investment Ltd.	Commercial w/ Residential Rental
784 Perth Main Street	Carl Dana McLaughlin	Commercial w/ Residential Rental
796 Perth Main Street	Valley Insurance Agency 1982 Ltd.	Commercial
804 Perth Main Street	Carl Dana McLaughlin	Commercial w/ Residential Rental
808 Perth Main Street	Reid Leon Moorcraft	Commercial
814 Perth Main Street	Kevin William McCarthy	Commercial
832 Perth Main Street	Marty's Wash and Detail Center Ltd.	Commercial
832 Perth Main Street	Marty's Electric Ltd.	Commercial
868 Perth Main Street	Sheldon Birse Green	Commercial
878 Perth Main Street	Eileen Amanda Hansen	Commercial w/ Residential Rental
890 Perth Main Street	Brian E Parker	Commercial w/ Residential Rental
898 Perth Main Street	Carl Dana McLaughlin	Residential Rental
918 Perth Main Street	Tommy Russell Dixon	Residential
929 Perth Main Street	Automotive Village Limited	Commercial
950 Perth Main Street	Harry D C Sadler	Residential
Station Road	Raymond J Durepos	Residential
8 Station Road	Perth Andover Non Profit Housing	Residential Rental
15 Station Road	Perth Andover Developments Inc	Commercial
19 Station Road	Perth Andover Developments Inc	Commercial
23 Station Road	Eileen Hansen	Residential Rental
5 Second Street	Donald D Nye	Residential Rental
9 Second Street	Fidile Hubert Albert	Residential Rental

3.2 Hospital

Hotel-Dieu of St. Joseph provides 24/7 service to the Village of Perth-Andover, Tobique First Nation and its surrounding communities which include a population of over 6,000 people. The Hospital is located off Route 105 (East Riverside Drive) approximately 650 m south of the BIA. The Hospital suffered significant damage during the 2012 flood. The lower lying wing of the hospital has been condemned and will be demolished. The newer wing, which sits at an elevation of 81.3m was above the 2012 flood level and remains active. The provincial government recently announced funding of \$7.65 million for repairs and restoration of the hospital, including a new essential services addition (refer to **Figure 3** for NBDTI's concept plan).

Route 105 is the only access route to the hospital and is prone to flooding. An objective of this project is to raise Route 105 between the hospital, the bridge, and Route 109 to maintain access during flooding events.

Figure 3 - Concept Plan for Hotel-Dieu of St. Joseph (NBDTI)



3.3 Road Network

Route 105 (East Riverside Drive/Perth Main Street) is a provincial collector highway that runs along the east side of the St. John River from Youngs Cove to Grand Falls, a distance of more than 300km. Locally and regionally, Route 105 is a critical travel route providing a number of important functions to Perth-Andover and surrounding areas, including:

- Provides the only connection to the east end of the Perth-Andover Bridge;
- Connects the bridge to Route 109 and points east, including Plaster Rock and forest resource areas;
- Provides the only north-south travel route along the east side of the river, including access to Tobique First Nations to the north;
- Serves as the primary street through the downtown business improvement area; and
- Provides the only access to the Hospital.

Within Perth-Andover, Route 105 carries a traffic volume of 5,000 to 6,000 vehicles per day including more than 400 trucks per day.

Many segments of Route 105 are low lying and are prone to flooding even during routine spring flood events. During major flooding events, such as in 2012, critical areas of Route 105 were submerged, cutting off access to the bridge and the Hospital. This is a significant public safety issue and therefore, raising Route 105, at least between the bridge and hospital, is a key objective of this project.

Route 130 (West Riverside Drive) is a provincial collector highway that runs along the west side of the St. John River from Florenceville to Grand Falls. Regionally, Route 130 is a secondary travel route given the nearby presence of the Trans Canada Highway (Route 2). Locally, Route 130 provides north-south travel through the Andover area and connects with Route 109 and Route 190 which provide access to the TCH. Route 130 also connects with the west end of the Perth-Andover Bridge at a 4-way intersection with Route 109. Route 130 carries traffic volumes of 1,200 to 3,500 vehicles per day in the vicinity of the bridge.

Route 109 is a provincial collector highway that begins at the TCH, crosses the St. John River at the Perth-Andover Bridge, passes through the downtown (shared with Route 105) and then continues east to Plaster Rock as Gulch Road. Route 109 is an important regional roadway and carries a large volume of truck traffic between the TCH and resource areas to the northeast. Route 109 carries a traffic volume of 8,700 vehicles per day across the St. John River, including more than 400 trucks per day.

Station Road is a local street that provides access to various residential and commercial properties along the east side of the downtown area close to the bridge. Station Road has a similar elevation to Route 105 and was overtopped in the 2012 flood.

Terrace Street is a local residential street that connects with Route 109 (Gulch Road) in the north and Station Road in the south. The southern end of Terrace Street is one-way southbound due to a very narrow road width that is constrained by topography. Terrace Street is located just east of the downtown but is elevated well above the flood level.

The Route 109/Route 105 Intersection has a poor configuration, challenging grades, and poor sightlines. Route 109 (Gulch Road) intersects Route 105 at a very sharp angle on a downgrade that includes a sharp

turn. The configuration is a significant safety concern, particularly with the steady volume of truck traffic on Route 109. Addressing this intersection is a specific objective of this infrastructure plan.



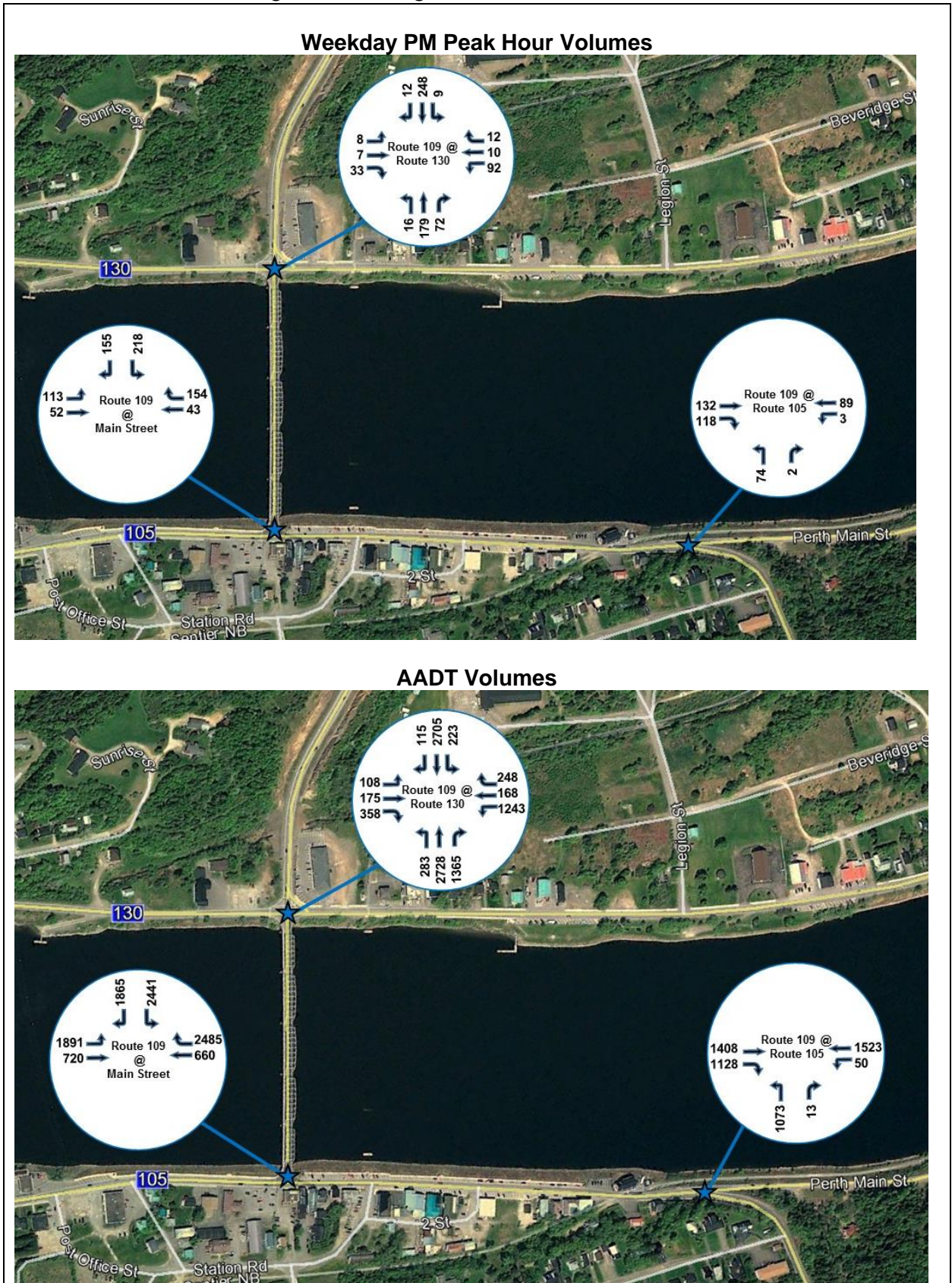
3.4 Traffic Movements

Traffic volume data were collected at three intersections: at each end of the bridge and at the Route 105/Route 109 intersection. The volumes were collected over a 6-hour period spanning the morning (7:30am to 9:30 am), noon (11:30am to 1:30pm), and evening (4:00pm to 6:00pm) peak periods. It was determined that the evening peak period was the busiest and therefore was selected as the design hour. Annual Average Daily Traffic (AADT) volumes were estimated by factoring up the 6-hour totals by a typical adjustment factor of 2.5. The hourly and daily turning movement volumes are shown in **Figure 4**. The AADT for key roadway links are summarized in **Table 2**.

Table 2 - Daily Traffic and Truck Volumes on Key Roadway Links

Roadway Link	AADT Volume	Truck %
Bridge	8,680 veh/day	5 %
Route 105 North of the Bridge	6,300 veh/day	7 %
Route 105 South of the Bridge	5,140 veh/day	3 %
Route 109 East of Route 105	2,260 veh/day	6 %
Route 130 North of the Bridge	3,420 veh/day	3 %
Route 130 South of the Bridge	1,210 veh/day	4 %

Figure 4 - Existing Intersection Traffic Volumes



3.5 Trails

Several trails pass through the project area, including the Trans Canada Trail (TC Trail) and International Appalachian Trail (IA Trail). Both trails fall within the NB Trails network and have local, regional, and national significance.

Beginning in the south, the TC Trail follows the old railway corridor on the east side of the river up to the Perth downtown, where it connects to the bridge via Station Road, crosses the river and then rejoins the rail corridor west of Route 130. The trail has an asphalt surface from Beech Glen Road to Terrace Street (2.2km) and from Route 130 to Route 190 (1.4km).

The IA Trail shares the TC Trail alignment on the west side of the river, crosses the bridge and then heads north along the old rail corridor adjacent to Route 105. The IA Trail has a gravel surface on the east side of the river, from Terrace Street northward.



There is a desire to maintain the connectivity of the trails described above and integrate them with the redevelopment plan.

3.6 Wetlands and Watercourses

Mapping from Environment and Local Government was reviewed to identify presence of wetlands within the project area as there would be implications for triggering an environmental impact assessment. Based on our review, the only wetland identified is a Provincially Regulated Wetland at the north end of the project area along the riverbank, beginning at the Route 105/Route 109 intersection and extending northward. There will be work within this wetland that involves the demolition of the Route 105/Route 109 intersection and blending the Route 105 realignment back to the existing alignment. Further discussion with DELG will be required to confirm requirements for an environment impact assessment.

No major watercourses are present within the project limits on the east side of the river. There is a significant watercourse on the west side of the river that passes beneath Route 109 via a large box culvert just west of the bridge. Depending on the bridge option ultimately selected, this watercourse may be impacted and would need to be accommodated with a crossing.

4.0 Options Evaluation and Selection

Five network options were developed for review with the Village and Province. The options mainly varied by the location of a new bridge, as the location and height of the bridge have significant implications for how the surrounding lands are developed and connected. The five options are described as follows:

- Option 1 - New Bridge at Current Location, At-Grade with New Development
- Option 2 - New Bridge at Current Location with “Fly-Over” Connections
- Option 3 - New Bridge Upstream with “Fly-Over” Connections
- Option 4 - New Bridge Downstream, At-Grade with New Development
- Option 5 - New Bridge at Current Location, At-Grade on East End, Fly-over on West End

Drawings were prepared that showed the layout of the future transportation network, the new bridge location, layout of the proposed downtown redevelopment and new land elevations. The drawings also illustrated profiles and sections of the bridge and connecting roadways to demonstrate feasibility. Several elements were common to all options, including:

- Redeveloped Downtown Grid - All options showed a preliminary new development area for the downtown business area with approximately 40 commercial lots and a new grid network of streets. The downtown area was raised to an elevation of 82.25m.
- Access to the Hospital - Route 105 was realigned and raised above the design flood line to maintain access to the hospital during flooding events.
- New Connector Road to Route 109 - A new connector road between Route 105 and Route 109 was shown. This connector road allows the existing Route 109/Route 105 intersection to be eliminated as it has deficient geometry and is prone to safety issues.

A memo dated October 3, 2016 provides a full description of these options and a comparison of the relative advantages and disadvantages of each option. The memo was submitted to the Village and to NBDTI for review. A meeting was then held with DTI highway and bridge design staff to discuss the preferred network option(s). DTI staff preferred Option 3 due to the high elevation, fly-over connections, and direct, uninterrupted alignment with Route 109, but were also open to Option 5, given that it is a significantly shorter span. Following this meeting, the options were shortlisted to Option 3 and Option 5. The Village then consulted with business owners who selected Option 5 as their preferred option given that it maintains more direct access with the downtown.

The project team recognized that it would be unrealistic to expect a final bridge location to be approved by DTI within the timeline of this study, given the extensive pre-engineering work that has to occur. Therefore, we carried forward both Option 3 and Option 5 in the infrastructure plan and configured the downtown development and connecting roads in such a way that either bridge location could be accommodated in the future. The following chapters present extensive details on each option, which have been renamed as follows for clarity moving forward:

- **Option A** (formerly Option 5) - New Bridge at Current Location, At-Grade on East End, Fly-over on West End; and
- **Option B** (formerly Option 3) - New Bridge Upstream with “Fly-Over” Connections

5.0 Description of Preferred Options

5.1 Network Option A

Option A has the new bridge located just downstream of the existing bridge. The bridge terminates in an approach fill on the east side of the river which creates a separation between the north and south areas of the existing downtown. It is proposed to construct the new downtown to the south of the bridge and reserve the area to the north of the bridge for future commercial or residential development. The advantages of this option are that it provides direct connections to the downtown and provides convenient transportation access for all dominant traffic demands. It also maintains pedestrian connectivity between key community nodes and maintains a river crossing connection for the TC Trail and IA Trail.

Various features of Option A are described below. Relevant drawings include the following:

- Drawing #C104 - Option A Concept Plan
- Drawing #C105 - Option A Bridge Crossing Elevation View
- Drawing #C106 - Option A Plan and Profile of Route 130 Connector
- Drawing #C107 - Option A Town Centre Concept
- Drawing #C108 - Option A Town Centre Elevation View
- Drawing #C109 - Option A Hospital Plan
- Drawing #C110 - Typical Cross-Sections
- Drawing #C111 - Typical Cross-Sections
- Drawing #C112 - Option A Water Main Servicing
- Drawing #C113 - Option A Sanitary Main Servicing

Downtown Development Area

The downtown redevelopment area is concentrated in an area between Victoria Villa and the existing bridge. The rationale for this location is to take advantage of a largely vacant area of land where phasing of development could begin with minimal impacts to existing business and residential activity. Through a 3-stage phasing plan, the intent would be to relocate all active businesses to this south development area. Once vacated, the area to the north of the existing bridge would be returned to a greenfield area and reserved for future development based on market demand and interest of private developers.

The new downtown development area would be built up to an elevation of 82.25 to mitigate against future flood risk. The boundaries of the fill areas are shown in the drawings.

The new downtown encompasses an area of approximately 5.7 ha and allows for a mix of low to medium density residential housing and a town-square style commercial development. The development concept is shown in Drawing C107 and provides the land supply listed in **Table 3**. Land use is arranged in a manner that places commercial uses closest to the new bridge and centre of traffic activity. Moving south, the land use transitions from medium density residential to low density single family homes. The purpose of including single family lots is to make lots available for homes that will be displaced as part of the in-filling work and transportation improvements, as described further in **Chapter 5.0**.

Table 3 - Option A Downtown Development Land Supply

Land Use	# of Lots	Total Area
Commercial/Institutional	20	2.0 ha
Medium Density Residential (Multi-Units)	5	0.6 ha
Low Density Residential (Single Family Homes)	17	1.0 ha
Public Right-of-Way	NA	2.0 ha
Public Plaza	1	0.1 ha
Total	43	5.7 ha

The downtown concept also includes the following features related to orientation, parking, access, pedestrians, and streetscaping:

- Orientation** - The centrepiece of the downtown is the town-square bounded by Route 105, East Riverside Drive, and Street A. It is anticipated that commercial uses such as banks, professional services, and perhaps retail would be located along Route 105 and Street A. Restaurants, the library and other tourism type developments would be on East Riverside Drive facing the river. Street A and Street B were included in the concept (versus one large development block) to reduce the number of business access points on Route 105, to shorten block lengths thus improving pedestrian mobility through the area, and to open views of the river.
- Parking and Access** - The concept provides 100 on-street parking spaces surrounding the commercial development. A public alley across the town-square provides access to additional private parking to the rear of the commercial buildings. On the west side of Route 105, no direct driveway access would be provided. Driveway access would be provided off the sidestreets to reduce conflict points on Route 105.
- Pedestrians and Cyclists** - The downtown concept provides a very friendly pedestrian environment with sidewalks on one or both sides of all streets, a number of pedestrian crossings, and pedestrian alleyways from the rear parking areas of the town-square to the front building entrances. The TC Trail will also be realigned to run along the river bank and will provide an attractive opportunity for pedestrians and cyclists to access the downtown from the north and south from the TC Trail and IA Trail.
- Public Open Spaces and Streetscaping** - A pedestrian plaza is proposed to be located in the town-square facing the river. This is similar to a concept proposed in the 2014 Glenn Report, with the intent to encourage social interaction, add vibrancy to the downtown, and provide a location for holding civic events and markets. The area between the river and East Riverside Drive will be landscaped and will provide an opportunity for a park or natural open space. Street furniture and decorative lighting will provide the finishing touches to accent the identity and character of the new downtown.

Once all businesses are moved into the new downtown area, the land to the north of the bridge, will be cleared and returned to open space in the short term. The land covers an area of approximately 2 hectares and will be available for future commercial or residential development, but this would be driven by market demand and subject to the interest of private developers. Services will be provided for the eventual development of the land.

Route 105 Realignment

One of the main objectives of this project is to raise Route 105 between Gulch Road, the bridge, and the Hospital to maintain clear access during flooding events. To achieve this, it is proposed to realign Route 105 to the east to follow the old rail corridor (NB Trail) behind the existing downtown. There are a number of advantages to realigning Route 105 to this location, as follows:

- Allows Route 105 to be raised with minimal interruption to existing properties along East Riverside Drive;
- Moves Route 105 a distance of 130m back from the end of the bridge, which allows space for transitioning grades to the existing bridge and ultimately a future bridge;
- Allows for phased construction plan which begins in-filling from the rear of the existing downtown to minimize disruption to businesses and traffic flow on East Riverside Drive; and
- Concentrates traffic away from the future riverfront, which will be primarily intended for pedestrian use, parking, and enjoyment of the river environment.

The realignment of Route 105 will begin just south of the Hospital and returns to the original alignment just north of the existing Route 109 intersection. Route 105 will feature one travel lane in each direction with turning lanes at key intersections. Sidewalk will be provided on both sides through the downtown core and on at least one side outside of the core. On-street parking will also be provided through the downtown core. Proposed typical sections of Route 105 are shown in Drawing #C110.

Route 109 Realignment (Mountain Street)

Another objective of this project was to address the poor configuration of the Route 105/Route 109 intersection. Reconstructing this intersection to gain any noticeable improvements would be difficult given the grade challenges. Therefore, it has been proposed that a new alignment of Route 109 be constructed that begins at the bridge and proceeds directly up the hill to reconnect with existing Route 109 to the east. This would also provide a more direct route for trucks crossing the river and destined for the Plaster Rock Area.

A plan and profile of the Route 109 realignment (referred to as Mountain Street) is shown in Drawing C105. Key features of the roadway are as follows:

- Design Standard: Rural Collector Undivided (RCU) with a design speed of 70 km/h;
- Length = 900m, beginning at the east end of the bridge;
- The roadway intersects with re-aligned Route 105 at an at-grade stop controlled intersection near the end of the bridge.
- At the reconnection point with Route 109, a continuous alignment will be provided and the remaining end of Gulch Road will tee into the new alignment and provide access to Terrace Street. Access to Route 105 at the existing intersection will be closed off.
- The south end of Terrace Street would intersect with Mountain Street via a one-way entrance only (this section of Terrace is currently one-way). Brentwood Drive (access to the Castle Inn) would also be realigned to intersect with Mountain Street.
- The roadway rises at a grade of 8% for a distance of 400m from Route 105. After cresting, the road drops back down at a grade of 7.5% for a distance of 150m at which point it reconnects with existing Route 109.

- It is proposed to provide a climbing lane in the eastbound direction given the significant grade and high volume of trucks.
- Construction of the road will require significant excavation. It is assumed most of the excavation will be in rock. We estimate that rock cuts will reach 12m in height and an excavated volume of approximately 170,000 cubic metres of material will be generated.
- A significant volume of storm water run-off will need to be accommodated by the roadside ditches. Rock check dams or other run-off control features will be required. It is also anticipated that the drainage will need to be piped away at the base of the hill. It is envisioned that a large culvert will be extended from the base of Route 109 to the riverbank, between the north edge of the downtown and the new bridge.

Hospital Access

Access to the Hospital from Route 105 will be similar to what is currently provided. The realignment of Route 105 will begin near the Hospital and a new four-way intersection will be created between Route 105, East Riverside Drive, and Woodland Hill Street. A new driveway will be constructed to the front parking area and the internal circulation of the lot will be reconfigured to maintain access to the main building entrance. The rear driveway access will remain unchanged.

The elevation of Route 105 will be approximately 82.25m at the new intersection with Woodland Hill Street. This is approximately 1 to 2 m higher than the elevation of the front parking lot. Approach grades will be blended for smooth transition. Some regrading of the parking lot may be required.

A reconfiguration and expansion of the overflow parking lot on the north side of Woodland Hill Street is also proposed, with a new access provided off Woodland Hill Street, opposite the access into the main front parking area. Refer to Drawing #C109 for details.

Municipal Services

A preliminary assessment of water, sanitary, and storm services was completed to review depths and grades and determine how these facilities would be laid out and phased in.

Water Service

- The existing water system is a well-based system. There are two wellfields, one on the east side and one on the west. The well on the Perth side is rated for 28.6 l/s at a head pressure of 63.4m. These well pumps connect directly into the distribution system.
- New water service lines will be installed in the redeveloped areas and old lines abandoned following completion of all project phases. The proposed layout of the new water services is shown in Drawing #C112. The new lines will be installed in the new public right-of-ways established in the redevelopment area. Note that the area for access to the water main that crosses under the river and connects to the existing east side system is within public property and therefore will be accessible to make connection to the new water system. The inverts of the new lines will be above the existing lines, but the change in elevations is not anticipated to be a problem. No booster stations are expected to be required.
- Many of the water mains in the Perth project area are very old (some are more than 100 years old) and at the end of their service life. Not all will be directly impacted by the proposed

infrastructure plan. The Village may opt to replace these old lines as part of the project, but we have not included this in our cost estimates.

Sanitary Sewer

- The Perth downtown area is currently serviced by a 450mm diameter gravity sewer line on East Riverside Drive that conveys sanitary sewer flows southward to an existing pumping station just south of Flat Iron Street. Flows are then pumped further south along East Riverside Drive to an existing wastewater treatment facility where they are treated before being discharged into the environment.
- New sanitary service lines will be installed in the redeveloped areas and old lines abandoned following completion of all project phases. The proposed layout of the new sanitary services is shown in Drawing #C113. The new lines will be installed in the new public right-of-ways established in the redevelopment area. Note that the area for access to the sanitary force main that crosses under the river and connects to the existing system is within public property and therefore will be accessible to make connection to the new system. The inverts of the new lines will be above the existing lines. Connections back to the main line will be made using drop inlet manholes. No new lift stations are expected to be required.

Storm Sewer

- Details on the existing storm sewer were not known at the time of this study and more detailed field survey would be required to determine direction of flows and outlet locations.
- New storm sewers will be installed in the public right-of-way along the roadway alignments with curb and gutter. The new system will tie into existing storm outlets where possible.

New Bridge

In Option A, the new bridge is shown approximately 20m downstream of the current bridge and will have at-grade roadway connection at the east end and a fly-over connection to Route 109 at the west end. Bridge span, elevation, and grade are as follows:

- Bridge East End Elevation = 86.02m
- Bridge West End Elevation = 88.63m
- Bridge Span = 445m (330m over the river, 115m over land on the west side)
- Bridge Grade = 0.8%

A profile of the bridge and the approaches is shown in Drawing #C105.

East End Approach

At the east end, the roadway approach is constructed on a fill connecting with the bridge at elevation 86.0m and sloping down to Route 105 at 83.8m (2% grade). The fill is higher than the elevation of the downtown, but the roadsides would be sloped down and landscaped for aesthetics. The TC Trail would pass beneath the bridge in order to provide uninterrupted north-south access. The elevation of the bridges provides 3m of clearance to the trail from the underside of the girders.

West End Approach

At the west end, the bridge flies over Route 130 and connects with existing Route 109 approximately 250m back from the riverbank. Part of this approach is a continuation of the bridge (115m) while the

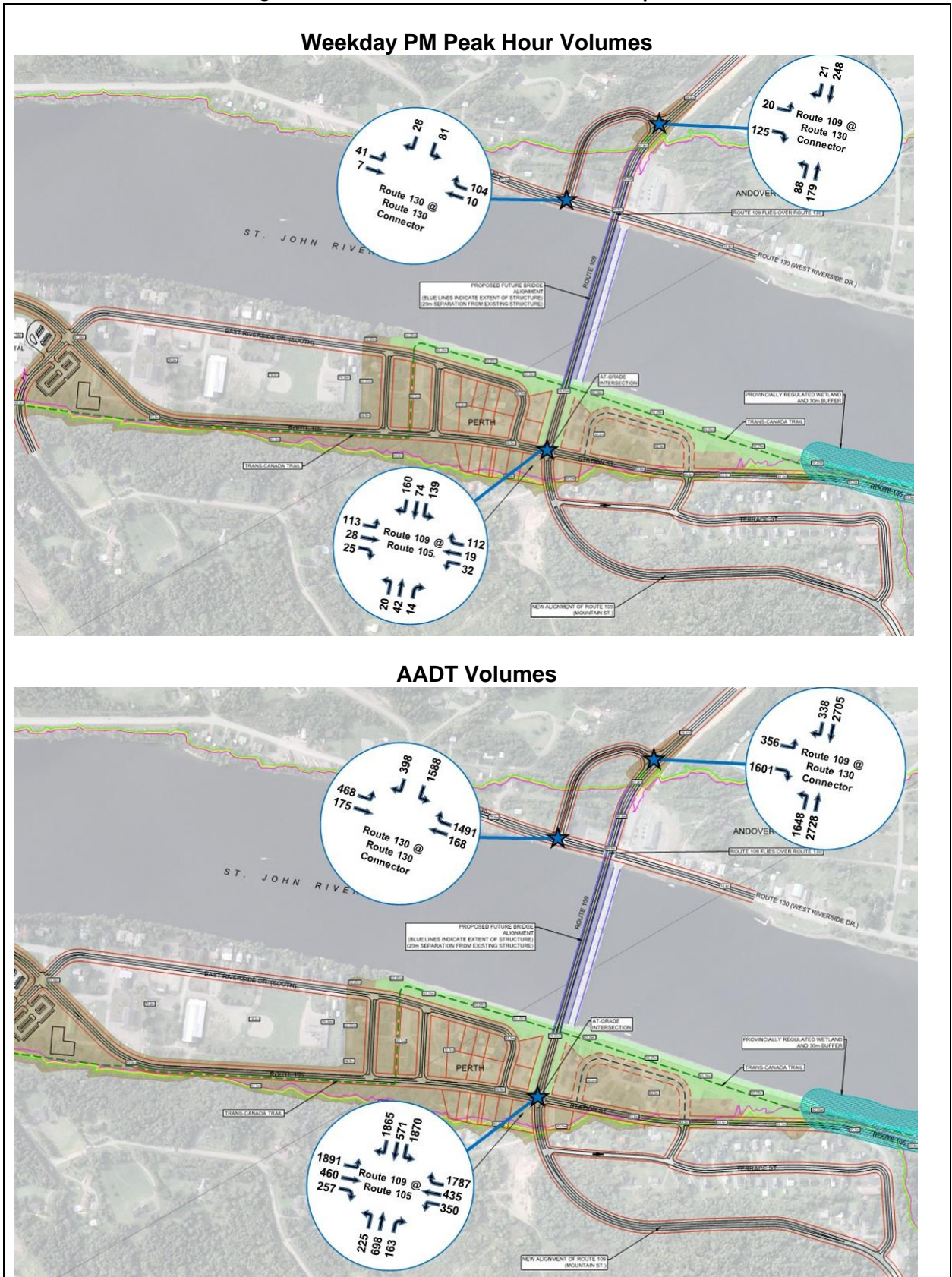
remaining 135m is a fill. The height of the bridge allows adequate clearance for Route 130 which will remain as is. A connection between Route 130 and the bridge will be provided via the “Route 130 Connector”, a short loop road that connects Route 130 up to Route 109 on the south side of the bridge. The connector will be a two-way road with stop signs at both the Route 130 and Route 109 approaches. Separate turning lanes will be provided at both intersections. The connector road will need to cross a major watercourse and a large culvert will be required. The layout of the connector road is shown in the Option A concept plan in Drawing #C106.

Traffic Operations

Estimated traffic volumes at key intersection points in Option A are shown in **Figure 5** for the evening peak hour and daily volumes. Intersection configurations, traffic control and operational performance for these intersections are as follows:

- **Route 105/Route 109** - This four-way intersection is a focal point of north-south and east-west traffic on the east side of the river. Proposed lane configurations include a separate northbound left turning lane and a separate eastbound right turn lane. The westbound and southbound approaches have a single approach lane. This intersection could operate as either a four-way stop or a two-way stop with stop signs on the Route 105 approaches. A four-way stop would slow traffic at this critical junction and is well suited given the balanced volumes; however, stopping traffic at the bottom of the steep grade on Route 109 is not ideal. Modelling of the intersection indicates the traffic delays would be low under either traffic control scenario.
- **Route 109/Route 130 Connector** - This T-intersection provides access between the bridge and Route 130. It is proposed that this intersection operate with stop control on the Route 130 Connector approach only. The Route 109 approaches would be free flow. It is proposed to provide a separate westbound left turn lane and eastbound right turn lane on Route 109. It is expected that this intersection would operate with low delays under this configuration.
- **Route 130/Route 130 Connector** - It is proposed that this T-intersection operate with stop control on the Route 130 Connector approach only. The Route 130 approaches would be free flow. Although a separate northbound left turn lane on Route 130 is shown, traffic volumes on Route 130 are expected to be low, so this turning lane is considered *optional*. It is expected that this intersection would operate with low delays under this configuration.

Figure 5 - Estimated Traffic Volumes for Option A



5.2 Network Option B

In Option B, the bridge is relocated 500m upstream from the existing bridge. This provides an alignment that ties directly into Route 109 (Gulch Road) on the east side and Legion Street on the west side.

Advantages of this option are that the new bridge would be located high above the river and flood plain and provides a direct route between the TCH and Route 109 east to Plaster Rock. The bridge is also completely independent of the downtown, potentially providing more flexibility in the design and phasing of the downtown redevelopment.

A disadvantage of this option is that river crossing traffic is moved away from the downtown centre which will cause some reduction of activity in the downtown and could impact the business case of future investment in downtown properties. Another disadvantage is that the bridge span is 611m, approximately 40% longer than the bridge span in Option A, resulting in higher costs for the bridge component. Also, the Department of Environment and Local Government (ELG) noted the potential for unconsolidated soils in the river bed and flood plain at this bridge location. This could have an impact on the feasibility of a bridge crossing at this location or further increase construction cost.

Many of the features of Option B are similar to Option A, including the general development concept, Route 105 realignment, and the Hospital access. Features that vary from Option B are described below. Relevant additional drawings include the following:

Drawing #C114 - Option B Concept Plan

Drawing #C115 - Option B Bridge Crossing Elevation View

Drawing #C116 - Option B Plan and Profile of Route 109 to Route 105 Connector

Mountain Street

The alignment of Mountain Street is similar to Option A. In the short term, it would be a realignment of Route 109, but in the longer term with the new bridge constructed upstream, it would become a local connection given that Route 109 would be aligned directly across the bridge between Legion Street and Gulch Road.

New Bridge

In Option B, the new bridge is approximately 500m upstream of the current bridge and ties directly into Route 109 (Gulch Road) on the east side and Legion Street on the west side. This requires that the bridge span a long distance over land on the west side. Bridge span, elevation, and grade are as follows:

- Bridge East End Elevation = 93.4m
- Bridge West End Elevation = 91.4m
- Bridge Span = 611m (340m over water and 270m over land)
- Bridge Grade = 0.7%

A profile of the bridge and the approaches is shown in Drawing #C115.

East End Approach

At the east end, the bridge will fly-over existing Route 105 and connect with Route 109 above the existing Route 109/Route 105 intersection, which would be removed. It was determined that a direct connection

between Route 105 to the end of the bridge would not be practical given the grade and topographic constraints.

West End Approach

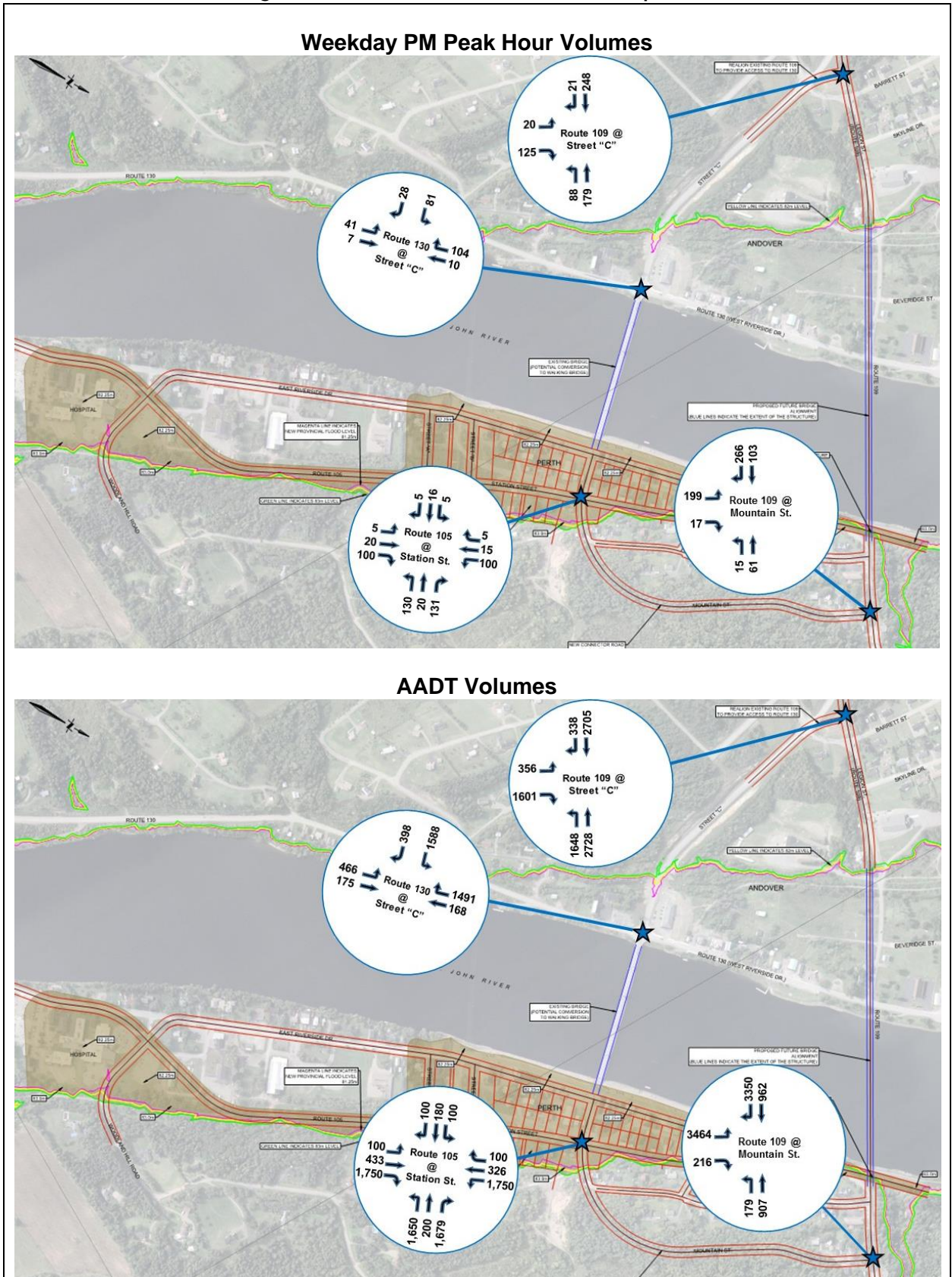
At the west end, the bridge flies over Route 130 and low lying areas of Andover and connects with Legion Street 350m back from the riverbank. The height of the bridge allows adequate clearance for Route 130 which will remain as is. Legion Street would be upgraded to a collector highway standard and extended to connect directly to Route 109 for a continuous route up to the TCH. The lower portion of existing Route 109, approaching the existing bridge, would become a local connector road (Street "C") and would provide access between Route 130 and the new bridge. An alternative layout would be to leave the Route 109 alignment intact and align Legion Street to tee into Route 109 across the Legion property.

Traffic Operations

Estimated traffic volumes at key intersection points in Option B are shown in **Figure 6** for the evening peak hour and daily volumes. Intersection configurations, traffic control and operational performance for these intersections are as follows:

- **Route 105/Mountain Street** - This four-way intersection is a focal point of traffic between the bridge, Route 105 and the downtown. In the short term, it is proposed that this intersection have the same configuration as in Option A, but some reconfiguration may be required in the longer term with a new bridge constructed upstream. This intersection could operate as either a four-way stop or a two-way stop. A four-way stop would slow traffic at this critical junction and is well suited given the balanced volumes. It is expected that traffic delays at this intersection would be low under the proposed configuration.
- **Route 109/Mountain Street** - This T-intersection provides access between the bridge and Route 105. It is proposed that this intersection operate with stop control on the Mountain Street approach only. The Route 109 approaches would be free flow. It is proposed to provide a separate westbound left turn lane and eastbound right turn lane on Route 109. It is expected that this intersection would operate with low delays under this configuration.
- **Route 109/Street C** - This T-intersection provides access between the bridge and Route 130. It is proposed that this intersection operate with stop control on the Street C approach only. The Route 109 approaches would be free flow. It is proposed to provide a separate westbound left turn lane and eastbound right turn lane on Route 109. It is expected that this intersection would operate with low delays under this configuration.
- **Route 130/Street C** - It is proposed that this T-intersection operate with stop control on the Street C approach only. The Route 130 approaches would be free flow. It is not anticipated that separate turning lanes will be required. It is expected that this intersection would operate with low delays.

Figure 6 - Estimated Traffic Volumes for Option B



6.0 Project Phasing

The following sections outline a three-phase approach to implementing the Perth-Andover downtown redevelopment. The objective of the phasing is to implement the various components of the redevelopment in a logical order with minimal disruption to existing businesses. Option A has been used for the purposes of this exercise.

6.1 Phase 1

The steps for implementation of Phase 1 as are follows:

1. Phase 1 begins with the realignment of Route 105 from the Hospital to Terrace Street (1,000m). This will allow for access to the first phase of the downtown area. As a temporary condition, Route 105 will blend back into the north end of Station Road. The TC Trail will be maintained adjacent to Route 105 except through the downtown area, where it will be removed during construction and maintained on a temporary basis until a permanent realignment of the trail occurs in Phase 3.
2. Excavation of Mountain Street will begin at the same time and will provide a source of fill for the Route 105 realignment and first phase of downtown development. Rock excavated from the Mountain Street corridor will need to be crushed to a suitable size for use in the development fill, considering the need to install services and foundations.
3. The first area of the downtown development will be filled in, beginning at the Route 105 realignment and working out towards the river. An area to the south of Station Road (next to the Post Office) is mostly vacant and provides an opportunity to begin filling with limited impacts to active properties. The boundary of the fill will be such that East Riverside Drive is not impacted, nor are commercial properties along Station Road.
4. Portions of Street A and Street B will be completed in the downtown, beginning at Route 105 realignment and built out towards the river.
5. New water, sanitary and storm services will be installed along Route 105, Street A and Street B. Temporary connections will be made to existing pipes. It is anticipated that services can be installed and made operational without the use of temporary pumping stations.
6. Development lots along Route 105, Street A, and Street B will be serviced and completed to finished grades.
7. At the south end of the Route 105 realignment, new connections to East Riverside Drive and Woodland Hill Street will be made along with associated modifications to the Hospital access and parking areas.
8. The final step of Phase 1 is to relocate residents and businesses to the completed Phase 1 lots. Priority will be given to those that are located within the Phase 2 area, given that this area needs to be cleared for Phase 2 fill to proceed.

At the completion of Phase 1, it is estimated that the following development lots will be available in the downtown (depending on subdivision of land and size of lots):

- 10 commercial lots;
- 4 multi-unit residential lots; and
- 15 single family residential lots

Additionally, one large institutional/commercial lot will be created next to the hospital.

Property Impacts

Several homes and businesses will need to be acquired or relocated to allow Phase 1 to proceed. Then at the completion of Phase 1, several additional commercial and residential properties will need to be relocated or redeveloped in the downtown area in order for Phase 2 construction to proceed. Phase 1 actions related to active properties are identified on Drawing #C117.

Property acquisition will also be required along the Mountain Street corridor in order for clearing and excavation activities to commence.

6.2 Phase 2

The steps for implementation of Phase 2 as are follows:

1. Once the Bank of Montreal building is relocated, a connection between the existing bridge and the Route 105 realignment will be constructed.
2. The remaining area of the downtown development (south of the bridge) will be filled in out to the riverbank. The north end of existing East Riverside Drive will be filled in and all north-south through traffic will be permanently diverted to the Route 105 realignment.
3. East Riverside Drive will be reconstructed at the new elevation through the downtown area and the intersection onto Route 105 realignment will be completed. Street A and Street B will be extended to intersect with East Riverside Drive.
4. New water, sanitary, storm, utilities and lighting will be installed along East Riverside Drive and connected to the new services on Route 105, Street A and Street B. Permanent connections to existing infrastructure at tie-points will be made.
5. Development lots along East Riverside Drive, Street A, and Street B will be serviced and completed to finished grades.
6. Mountain Street will be completed, allowing traffic to flow off the bridge and directly up the new alignment to Gulch Road. Connections to Terrace Street and Brentwood Drive will be made. The large storm pipe at between the base of Mountain Street and the river will be installed.
7. The existing Route 105/Route 109 intersection will be decommissioned.
8. Remaining existing residences and businesses to the north of the bridge will be relocated to the new downtown area. At this point, the existing downtown area to the north of the bridge should be completely vacated.

At the completion of Phase 2, the core downtown development area will be built-out and will provide the following lots:

- 20 commercial lots;
- 5 multi-unit residential lots; and
- 17 single family residential lots

Property Impacts

At the completion of Phase 2 the remaining commercial and residential properties in the existing downtown area, north of the bridge, will be relocated or redeveloped in the new downtown area. This will clear the northern area in order for Phase 3 to proceed. Phase 2 actions related to active properties are identified on Drawing #C117.

Property acquisition will also be required for the completion of the Mountain Street connection to Route 109 and proper termination of Route 109 at Terrace Street.

6.3 Phase 3

The steps for implementation of Phase 3 as are follows:

1. The northern section of the Route 105 realignment will be completed between the bridge and the existing Route 109 intersection, where the realignment will blend back to existing.
2. The area between the Route 105 realignment and the river will be filled in to the finished grade and landscaped. The area will be serviced for future development, but at this time will remain as open space.
3. A connection from Terrace Street down to the Route 105 realignment will be completed.
4. A new section of trail will be constructed along the riverbank. The trail will depart its current alignment south of the downtown, turn toward the river adjacent to the ballfield and continue along the river up to its current location at the north end of the project area.
5. The temporary roadway connection between the bridge and Route 105 will remain until such a time that a new bridge is constructed.

Property Impacts

Property acquisition will be required at two residential properties for the connection between Terrace Street and Route 105 to be constructed.

6.4 Bridge Replacement Phase

The bridge replacement could occur during the latter phases of the redevelopment or at a date beyond the completion of Phase 3. It is assumed that upon commencement of Phase 2 that a final bridge location will be known and the final connections can be planned and designed accordingly. The steps to implement the bridge phase for both Option A and Option B are outlined below.

Option A

1. Bridge piers and abutments will be constructed, followed by the superstructure and deck elements.
2. The west connection to Route 109 will be completed. Existing Route 109 may need to be shut down during this period and a detour route to the bridge put in place.
3. The east connection to Route 105 will be completed. The temporary access to the existing bridge will need to be maintained during this construction. This will likely require a sheet pile or other retaining wall along the temporary access to hold back the new approach fill. Upon completion of the new approach, the temporary approach to the existing bridge will be removed, filled in and landscaped.
4. The Route 130 connector will be constructed between Route 130 and Route 109.
5. The existing bridge will be decommissioned and removed.

Property Impacts

Property acquisition will be required to construct the Route 130 connector road between Route 109 and the west end of the new bridge. Based on the proposed alignment of the connector road, an occupied property will be impacted.

Option B

1. Bridge piers and abutments will be constructed, followed by the superstructure and deck elements.
2. Legion Street will be upgraded and realigned with Route 109. The west connection to the bridge will be completed.
3. The east connection to Route 109 will be completed. The Terrace Street connection to Gulch Road will be removed and the street terminated as a cul-de-sac. The temporary approach to the existing bridge will be removed, filled in and landscaped.
4. The existing bridge will be decommissioned and removed.

Property Impacts

The new bridge phase in Option B will require property acquisition along Legion Street in order to upgrade the roadway to a collector highway standard.

7.0 Andover Redevelopment Areas

In addition to the redevelopment of the downtown business improvement area, options for addressing commercial and institutional areas on the Andover side were also reviewed. Twenty eight properties on the Andover side were damaged by the 2012 flood, comprising 20 commercial/rental properties, 5 church/community properties, and 3 government properties including the Village Hall, fire hall, and courthouse. Relocating buildings to the Perth side is not possible given the restrictions on the bridge. Therefore, two areas on the Andover side of the river were identified that could be developed for relocation of buildings and re-establishment of commercial or institutional uses as part of a flood compensation program. These two areas are identified in **Figure 7** and described below.

7.1 West Riverside Drive Development Area

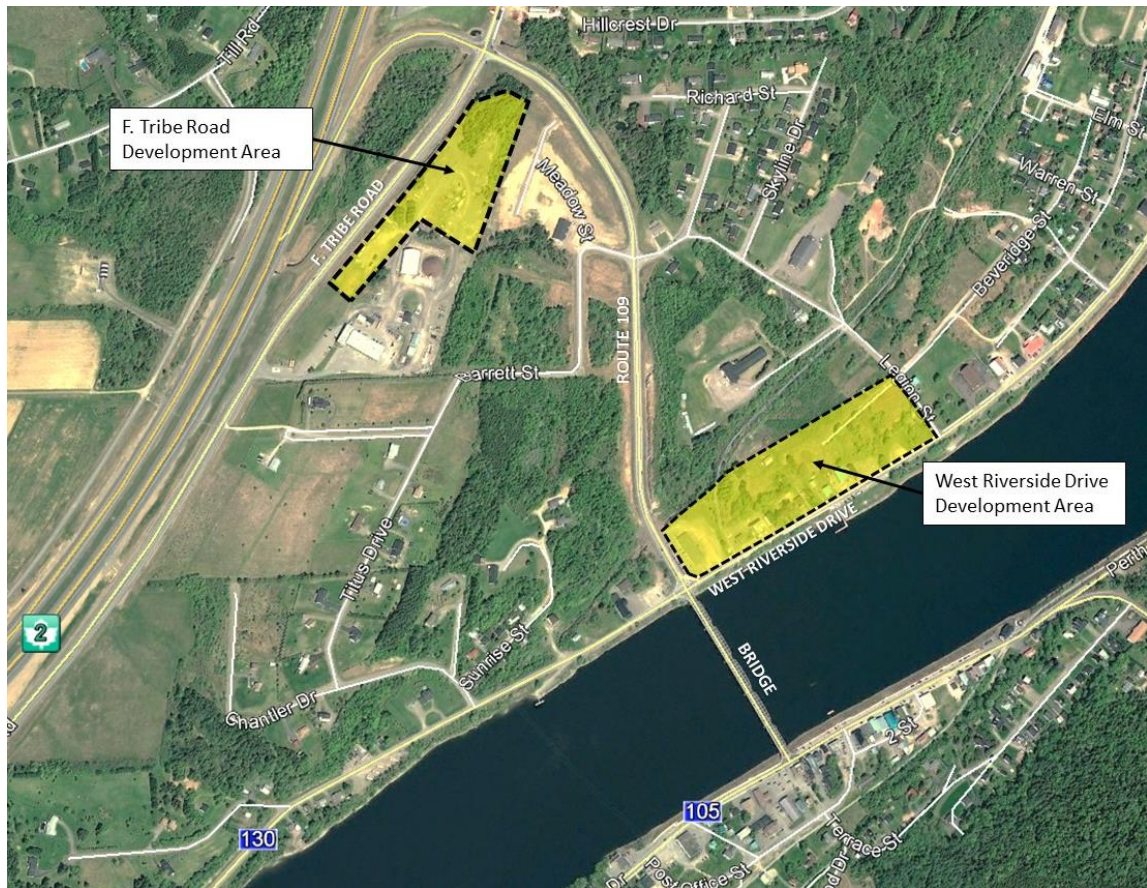
This area is located along West Riverside Drive between the existing bridge and Legion Street and occupies approximately 5 hectares of land. A preliminary concept plan (refer to Drawing C123) prepared for this area shows nine large commercial/institutional lots situated along a new local street parallel to West Riverside Drive. The development area would be filled in and raised to the 82.25m design level. Phasing would be such that the western side of the area would be filled in first to prepare the new development lots while not impacting the existing active properties along West Riverside Drive. As the lots are prepared, existing buildings would be relocated (or demolished and re-established) and eventually the entire area would be filled in, complete with roadway connections to West Riverside Drive and Legion Street. Although not shown on the concept, the TC Trail would also need to be accommodated within the development area.

The West Riverside Drive Development Area could be constructed with either network Option A or B.

7.2 F. Tribe Road Development Area

This area is located on the east side of F. Tribe Road between Route 109 and the NBDTI District office. The 3 hectare property is currently owned by the Province, but there is a willingness to sell to the Village for the purpose of establishing a new development area. A preliminary concept (refer to Drawing C124) prepared for this area shows thirteen lots situated along F. Tribe Road and a new crescent street. The lots would be intended for commercial uses and would serve as an extension of the existing commercial area north of Route 109. The area is well out of the flood prone zone and is more economical to develop than the West Riverside Drive and Perth downtown areas given that large quantities of fill will not be required and accommodation of existing properties during construction is not required. However, extension of municipal services will be required.

Figure 7 - Potential Development Areas in Andover



8.0 Property Acquisition

The implementation of the downtown redevelopment plan will require significant property acquisition. The estimated area of property needed to be acquired to achieve the redevelopment plan is shown in Drawing #C121 for Option A and #C122 for Option B. A detailed assessment of property acquisition requirements for Option A was completed and a list of property needs is provided in **Appendix C**. The property requirements can be summarized as follows:

- It is estimated that a total of 171 properties will be impacted;
- The total property required is 16.1 hectares;
- 5.6 hectares of land is required for transportation improvements. This impacts 40 properties;
- 10.5 hectares of land is required for flood mitigation improvements (e.g. for filling in and redeveloping the downtown). This impacts 131 properties.

On the Andover side, the F. Tribe Road development would require approximately 3 hectares to be acquired from the NBDTI property. The West Riverside Development would require approximately 5 hectares of land.

Costs resulting from property acquisition will be high. A cost estimate has not been prepared as part of this report, due to the complexity and uncertainty surrounding how flood impacted properties will be valued.

9.0 Construction Cost Summary

Opinion of probable construction costs were prepared for the infrastructure elements of the project for planning purposes. These have been summarized by categories of work and organized by project phase. A summary of costs for Option A, by phase, is provided in Table 4. The total estimated cost of Option A is \$71,956,500, expressed in 2016 dollars and exclusive of tax and property acquisition.

Table 4 - Estimated Construction Cost for Network Option A by Project Phase (2016\$)

Item	Phase 1	Phase 2	Phase 3	Bridge	Option A Total
Fill Material	\$2,375,000	\$750,000	\$1,250,000	\$0	\$4,375,000
Roadways	\$4,957,000	\$3,996,000	\$877,000	\$30,497,000	\$40,327,000
Municipal Services	\$1,250,000	\$1,350,000	\$650,000	\$0	\$3,250,000
Trails and Public Spaces	\$100,000	\$750,000	\$750,000	\$0	\$1,600,000
Utilities and Lighting	\$400,000	\$400,000	\$100,000	\$0	\$900,000
Building Relocations	\$800,000	\$360,000	\$0	\$0	\$1,160,000
Building Demolitions	\$120,000	\$600,000	\$0	\$0	\$720,000
Sub-Total	\$10,002,000	\$8,206,000	\$3,627,000	\$30,497,000	\$52,332,000
<i>Contingency (25%)</i>	<i>\$2,500,500</i>	<i>\$2,051,500</i>	<i>\$906,750</i>	<i>\$7,624,250</i>	<i>\$13,083,000</i>
<i>Engineering (10%)</i>	<i>\$1,250,250</i>	<i>\$1,025,750</i>	<i>\$453,380</i>	<i>\$3,812,130</i>	<i>\$6,541,500</i>
GRAND TOTAL	\$13,752,750	\$11,283,250	\$4,987,130	\$41,933,380	\$71,956,500

**This estimate does not include the cost of right-of-way acquisition or construction of new buildings.*

The opinion of probable construction cost for Option B is \$87,608,000, approximately \$16 million higher than Option A. This is mainly due to the higher bridge cost of \$57,585,000, resulting from the longer span in Option B.

Opinion of probable construction costs were also prepared for the two development options on the Andover side. These are summarized below in Table 5. In addition to these costs the estimate for relocation of buildings on the Andover side is \$3,600,000.

Table 5 - Estimated Construction Cost for Development Options in Andover (2016\$)

Item	West Riverside Development Area	F. Tribe Road Development Area
Fill Material/Grading	\$3,150,000	\$73,000
Roadways	\$420,000	\$489,500
Municipal Services	\$310,000	\$448,500
Utilities and Lighting	\$120,000	\$86,500
Sub-Total	\$4,000,000	\$1,097,500
<i>Contingency (25%)</i>	<i>\$1,000,000</i>	<i>\$274,400</i>
<i>Engineering (10%)</i>	<i>\$500,000</i>	<i>\$137,200</i>
GRAND TOTAL	\$5,500,000	\$1,509,100

**These estimates do not include the cost of right-of-way acquisition or construction of new buildings.*

10.0 Next Steps

It is anticipated that the following technical studies will need to be completed to advance the redevelopment project to the next phase of approvals and design.

Business Case for Federal Funding

It is anticipated that a business case document will be required to secure federal funding for the infrastructure components of this project. The timing and requirements of the business case will be confirmed with the province.

Flood Modelling Study

Prior to more detailed design efforts, it is recommended that a flood modelling study be done to evaluate the impacts of climate change and its impact on predicted flood levels. The results of this study will be used to confirm the selection of design elevation to be applied in the plan. Also, the modelling study should evaluate the impacts to flood levels resulting from the importing fill to the flood plain.

Downtown Secondary Plan

A more detailed design plan for the downtown should be completed to finalize a desired configuration of the site and composition of land uses. The design plan should also include recommendations for development controls that would be reflected in zoning by-laws including parking, loading, building heights, setbacks, materials, etc. and recommendations for streetscaping.

Environmental Impact Assessment

An Environment Impact Assessment may be triggered for this project given its proximity to the river. Work occurring within designated wetlands is one trigger, but there is also potential for presence of historic artifacts given the project location along the riverbank and proximity to First Nation lands. The timeline for an environmental impact assessment should be considered in the overall project schedule. There is also the risk that environmentally sensitive findings could impact the location of project components or delay project implementation.

Topographic Survey

To proceed with any further detailed design efforts, a full topographic survey of the project area should be completed, including survey of the new roadway corridors and survey of underground services (e.g. invert pick-up).

Geotechnical Investigation

A geotechnical investigation should also be completed should this project move to the next stage of design. The geotechnical investigation should sample soil conditions throughout the downtown and along the centreline of new roadways. Downtown sampling would determine the type of soil underlying the area and potential for settlement following placement of large quantities of fill material. There is risk that the findings of the investigation could impact project cost and schedule, such as requirements for excavation of poor soils or requirements for surcharging to allow for settlement of fill.

Bridge Planning

Either as part of the above engineering studies, or separately, NBDTI should advance preliminary bridge planning activities to determine a preferred bridge location, type, and configuration.

Appendix A - Drawing Package

Appendix B - Existing Property Status Summary

**PERTH-ANDOVER REDEVELOPMENT
STATUS OF EXISTING PROPERTIES**

*Property Status Options:
1 - "Vacant"
2 - "Occupied but Abandoned"
3 - "Occupied and Active"

ID #	PID	Owner	Owner2	Location	Property Status	
1	65173650	Canada Post Corp.	DNR		1	
2	65043317	Cornelia Ramsey			3	Residential
3	65043374	Keith Ralph Taylor		4 Terrace Street	3	Residential Rental
4	65043390	Keith Ralph Taylor		8 Terrace Street	3	Residential
5	65216954	Jonathan Robin Gagnon		Terrace Street	3	Residential
6	65043465	Jamie Douglas Swazey		16 Terrace Street	3	Residential
7	65043481	Robert Wayne Inman		18 Terrace Street	1	
8	65175945	Roy Dana Swazey		Terrace Street	3	Residential Rental
9	65043523	Dept. of Finance		22 Terrace Street	1	
10	65108888	Robert Charles Davenport		Terrace Street	3 (all on same PAN)	Residential
11	65043549	Robert Charles Davenport		Terrace Street		
12	65043572	Adam J Willet, Estate		26 Terrace Street	3	Residential
13	65043598	Clarence Albert Goodine		30 Terrace Street	3 (all on same PAN)	Residential Rental
14	65043606	Clarence Albert Goodine		Terrace Street		
15	65043622	Dean Eric McAllister		34 Terrace Street	3	Residential
16	65043911	Harry D C Sadler		950 Perth Main Street	3	Residential
17	65043937	Tommy Russell Dixon		918 Perth Main Street	3	Residential
18	65043671	John C Inman		Terrace Street	3	Residential
19	65108896	David Manuel Briggs		Terrace Street	3 (all on same PAN)	Residential
20	65043689	David Manuel Briggs		Terrace Street		
21	65043697	Ronald L Ingraham		Terrace Street	3	Residential
22	65043705	William Stephen Pelletier		58 Terrace Street	3	Residential
23	65154866	John C Inman		Terrace Street	3	same PAN as #18
24	65173643	DNR		CPR	1	
25	65043747	John Douglas Hanscombe		Terrace Street	1	
26	65043713	Dennis Wade Baker		59 Terrace Street	3	Residential
27	65043721	Margaret Ann Everett		Terrace Street	3 (all on same PAN)	Residential
28	65157752	Margaret Ann Everett		Terrace Street		
29	65134876	Automotive Village Limited	Poor Milda's Ltd	Main Street	3 (all on same PAN)	Commercial
30	65043929	Automotive Village Limited	Poor Milda's Ltd	Main Street		
31	65169856	NB Power		Main Street	1	
32	65169849	NB Power		Route 105	1	
33	65169831	NB Power		Route 105	1	
34	65169823	NB Power		Route 105	1	
35	65169906	NB Power		Route 105	1	
36	65169898	NB Power		Route 105	1	
37	65169815	NB Power		Route 105	1	
38	65169807	NB Power		Route 105	1	
39	65169799	NB Power		Route 105	1	
40	65169781	NB Power		Route 105	1	
41	65169773	NB Power		Route 105	1	
42	65169765	NB Power		Route 105	1	
43	65169880	NB Power		Route 105	1	
44	65169757	NB Power		Route 105	1	
45	65171076	DNR		Route 105	1	
46	65043945	Carl Dana McLaughlin		Main Street	3	Residential Rental
47	65043952	Brian E Parker		Main Street	3	Commercial & Residential Rental

**PERTH-ANDOVER REDEVELOPMENT
STATUS OF EXISTING PROPERTIES**

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ID #	PID	Owner	Owner2	Location	Property Status	
48	65043960	Eileen Amanda Hansen		Main Street	3	Commercial & Residential Rental
49	65043978	Village of Perth-Andover		Main Street	1	
50	65043986	Sheldon Birse Green		Main Street	3	Commercial
51	65211187	Marty's Wash and Detail Center Ltd.		Main Street	3	Commercial
52	65044018	Marty's Electric Ltd.		Main Street	3	Commercial
53	65113557	Donald D Nye		Main Street	1	
54	65113425	Donald D Nye		Second Street	1	
55	65046658	Donald D Nye		Second Street	3 (all on same PAN)	Residential Rental
56	65109068	Donald D Nye		Second Street		
57	65044034	Donald D Nye		Second Street		
58	65109050	Donald D Nye		Second Street		
59	65043804	Village of Perth-Andover		Second Street	1	
60	65043796	Village of Perth-Andover		Second Street	1	
61	65044364	Fidile Hubert Albert		Second Street	3	Residential Rental
62	65108938	Village of Perth-Andover		Second Street	1	
63	65108920	Village of Perth-Andover		Second Street	1	
64	65045882	J M Stewart Ltd.		Second Street	2	no services - storage building??
65	65044356	Carl Dana McLaughlin		13 Second Street	2	no services - storage building??
66	65043861	Village of Perth-Andover		34 Station Street	1	
67	65043887	Village of Perth-Andover		Second Street	1	
68	65089070	J M Stewart Ltd.		Second Street	2	same PAN as #64
69	65044026	Kevin William McCarthy		Main Street	3	Commercial
70	65044042	Reid Leon Moorcraft		808 Perth Main Street	3	Commercial
71	65108987	Carl Dana McLaughlin		Second Street	3 (all on same PAN)	Commercial & Residential Rental
72	65044059	Carl Dana McLaughlin		804 Main Street		
73	65044067	Valley Insurance Agency 1982 Ltd.		796 Perth Main Street	3	Commercial
74	65090243	J M Stewart Ltd.		Second Street	1	
75	65044075	J M Stewart Ltd.		Main Street	1	
76	65044083	Carl Dana McLaughlin		784 Main Street	3 (all on same PAN)	Commercial & Residential Rental
77	65044091	Carl Dana McLaughlin		Main Street		
78	65044109	Robert Charles Davenport		Main Street	2	no services - storage building??
79	65044117	P A Futuria Investment Ltd.		Main Street	3	Commercial & Residential Rental
80	65169872	NB Power		Route 105	1	
81	65169740	NB Power		Route 105	1	
82	65169732	NB Power		Route 105	1	
83	65169864	NB Power		Route 105	1	
84	65169724	NB Power		Route 105	1	
85	65044125	Bank of Nova Scotia	Woodstock Enterprises Ltd.	Main Street	3	Commercial
86	65044133	Shawcor Inc.		Main Street	1	
87	65044158	Shawcor Inc.		Main Street	3	Commercial
88	65044166	Ryan C Post Pharmacy Ltd.		Main Street	2	electricity on, no water, vacant, pharmacy in new location

**PERTH-ANDOVER REDEVELOPMENT
STATUS OF EXISTING PROPERTIES**

*Property Status Options:
1 - "Vacant"
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3 - "Occupied and Active"

ID #	PID	Owner	Owner2	Location	Property Status	
89	65044174	Johnson Drug Store Ltd.		694 Perth Main Street	2	electricity on, no water, vacant, pharmacy in new location
90	65044182	Bank of Montreal		Main Street	3	Commercial
91	65044349	4935265 Canada Ltd.		Station Road	1	
92	65044331	Ryan C Post Pharmacy Ltd.		Station Road	1	
93	65109027	Bank of Montreal		Main Street	1	same PAN as #90
94	65116915	Eileen Hansen		Station Road	3	Residential Rental
95	65045239	Village of Perth-Andover		Station Road	1	
96	65166894	Perth Andover Developments Inc	Supply and Services	West Station Road	3	Commercial
97	65166886	Raymond Durepos		West Station Road	3	Residential Rental
98	65192551	Perth Andover Developments Inc		West Station Road	3	Commercial
99	65044307	Environment and Local Gov't		9 Station Road	1	
100	65044299	Environment and Local Gov't		Station Road	1	
101	65077273	Raymond J Durepos		Station Road	3 (all on same PAN)	Residential
102	65077331	Raymond J Durepos		Station Road		
103	65046039	Raymond J Durepos		Station Road		
104	65101019	Environment and Local Gov't		Station Road	1	
105	65044216	Environment and Local Gov't		Main Street	1	
106	65022493	Environment and Local Gov't		Main Street	1	
107	65045221	Environment and Local Gov't		616 East Riverside Drive	1	
108	65044208	Benjoy Inc		Main Street	3	Residential Rental
109	65045098	Village of Perth-Andover		642 East Riverside Drive	3	Library
110	65043739	Village of Perth-Andover		Main Street	1	
111	65169617	NB Power		Route 105	1	
112	65169625	NB Power		Route 105	1	
113	65169633	NB Power		Route 105	1	
114	65169641	NB Power		Route 105	1	
115	65169658	NB Power		Route 105	1	
116	65187999	Canada Post Corp.	DNR	Station Road	1	
117	65043754	Geraldine Innis		18 Station Road	3	Residential
118	65045908	Peter William Dunlap		Terrace Street	1	
119	65167272	Preston Otis Hanscom		Marshall Street	3 (all on same PAN)	Residential
120	65167264	Preston Otis Hanscom		Marshall Street		
121	65043762	Eileen A Hansen		12 Marshall Street	3	Residential Rental
122	65043820	Eileen Hansen		Marshall Street	2	no services - was Residential Rental until recently
123	65167256	Preston Otis Hanscom		Marshall Street	3	same PAN as #119 & #120
124	65043812	Murray Keith Shepherd		15 Marshall Street	3	Residential
125	65043846	Eileen Hansen		Marshall Street	2	same pan as #122
126	65043838	Eileen Hansen		Marshall Street	3	Residential Rental
127	65168031	Eileen Hansen		Marshall Street	1	
128	65171084	DNR		CPR	1	
129	65171068	DNR		CPR	1	
130	65180275	DNR		CPR	1	
131	65044265	Wayne Lawrence		Station Road	1	
132	65044273	Wayne Lawrence		Station Road	1	
133	65045916	Perth Andover Non Profit Housing Corporation Inc		Station Road	3	Residential Rental

**PERTH-ANDOVER REDEVELOPMENT
STATUS OF EXISTING PROPERTIES**

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ID #	PID	Owner	Owner2	Location	Property Status	
134	65044281	Village of Perth-Andover		2 Station Road	1	
135	65044240	Imperial Oil Limited	DNR	CPR	1	
136	65044224	052819 N.B. Ltd.		Main Street	2 (all on same PAN)	no services - was Commercial before flood
137	65044232	052819 N.B. Ltd.	Supply and Services	Main Street		
138	65045288	052819 N.B. Ltd.		Main Street	1	
139	65218166	Canada Post Corp.	DNR	Main Street	1	
140	65044323	Canada Post Corp.	DNR	Main Street	1	
141	65044372	Gov't of Canada - Public Works		Main Street	3	Commercial
142	65189227	Peter William Dunlap	David James Dunlap	17 Brentwood Drive	3	Residential
143	65043853	Peter William Dunlap		CPR	1	
144	65189235	3671659 Manitoba Ltd.		Marshall Street	3	Commercial
145	65044398	Environment and Local Gov't		576 East Riverside Drive	1	
146	65113516	Environment and Local Gov't		576 East Riverside Drive	1	
147	65044414	Environment and Local Gov't		574 East Riverside Drive	1	
148	65044448	Environment and Local Gov't		572 East Riverside Drive	1	
149	65044455	Environment and Local Gov't		570 East Riverside Drive	1	
150	65038697	Peter Moore	DNR	CPR	1	
151	65203622	Victoria Villa Inc.		566 East Riverside Drive	3	Residential Rental
152	65169666	NB Power		Route 105	1	
153	65169674	NB Power		Route 105	1	
154	65187940	Perth-Andover Mainstop Inc.		Main Street	3 (all on same PAN)	Commercial
155	65044380	Perth-Andover Mainstop Inc.		Main Street		
156	65206781	Perth-Andover Mainstop Inc.		Main Street		
157	65169922	Lori Lee Taylor		Main Street	1	
158	65044430	Lori Lee Taylor		Main Street	1	
159	65169948	Lori Lee Taylor		Main Street	1	
160	65044463	Lori Lee Taylor		East Riverside Drive	1	
161	65195345	DTI		569 East Riverside Drive	1	
162	65169963	Richard L St. Peter		Main Street	1	
163	65044489	Environment and Local Gov't		Main Street	1	
164	65169971	NB Power		Main Street	1	
165	65045346	Environment and Local Gov't		Main Street	1	
166	65169989	NB Power		Main Street	1	
167	65046344	Environment and Local Gov't		Main Street	1	
168	65169997	NB Power		Main Street	1	
169	65044497	Environment and Local Gov't		Main Street	1	
170	65170003	Richard L St. Peter		Main Street	3 (all on same PAN)	Residential
171	65044505	Richard L St. Peter		Main Street		
172	65170011	NB Power		Main Street	1	
173	65044547	Environment and Local Gov't		555 East Riverside Drive	1	
174	65170029	NB Power		Main Street	1	
175	65044554	Environment and Local Gov't		553 East Riverside Drive	1	
176	65170037	NB Power		Main Street	1	
177	65044562	Perth Elk Lodge		549 East Riverside Drive	3	Commercial & Residential Rental
178	65170045	NB Power		Main Street	1	
179	65044570	David Scott Jenkins		547 East Riverside Drive	3	Residential
180	65170052	NB Power		Main Street	1	

**PERTH-ANDOVER REDEVELOPMENT
STATUS OF EXISTING PROPERTIES**

*Property Status Options:
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ID #	PID	Owner	Owner2	Location	Property Status	
181	65044588	Environment and Local Gov't		545 East Riverside Drive	1	
182	65038994	H J Crabbe and Sons Ltd.		Gulch Road	1	
183	65045189	Dept. of Supply and Services		Main Street	1	
184	65044521	Dept. of Supply and Services		Main Street	1	
185	65171209	Dept. of Supply and Services		CPR	1	
186	65045437	Village of Perth-Andover		Main Street	1	
187	65171233	DNR		CPR	1	
188	65171225	DNR		CPR	1	
189	65171217	Dept. of Supply and Services		CPR	1	
190	65171191	DNR		CPR	1	
191	65099954	DNR		CPR	1	
192	65144958	DNR		CPR	1	
193	65044513	Black Lion Restaurant and Pub Ltd.		Main Street	1	
194	65044257	Village of Perth-Andover		Main Street	1	
195	65156341	DTI		536 East Riverside Drive	1	
196	65044539	Black Lion Restaurant and Pub Ltd.		Main Street	1	
197	65043283	DTI		Main Street	1	
198	65044638	Steven A Cote Construction Ltd.		Main Street	3	Commercial
199	65170060	NB Power		Main Street	1	
200	65044596	DTI		543 East Riverside Drive	1	
201	65170078	NB Power		Main Street	1	
202	65045155	Carl Dana McLaughlin		East Riverside Drive	3	Commercial
203	65170086	NB Power		Main Street	1	
204	65044604	Carl Dana McLaughlin		Main Street	1	
205	65170094	NB Power		Main Street	1	
206	65186173	Catherine Phyllis Cote		535 East Riverside Drive	3	Residential
207	65170102	NB Power		Main Street	1	
208	65044653	DTI		Main Street	1	
209	65109639	Ernest D Brooker		Main Street	1	
210	65109647	Dept. of Public Safety		Main Street	1	
211	65170110	Ernest D Brooker		Main Street	1	
212	65044141	Ernest D Brooker		Main Street	3	Residential
213	65109613	Anna C Moore		Main Street	1	
214	65109621	Ernest D Brooker		Main Street	1	
215	65170128	Environment and Local Gov't		Main Street	1	
216	65044661	Anna C Moore		Main Street	1	
217	65113490	Anna C Moore		Main Street	1	
218	65170136	Environment and Local Gov't		Main Street	1	
219	65044679	Environment and Local Gov't		Main Street	1	
220	65045445	Eileen Amanda Hansen		528 East Riverside Drive	3	Residential Rental
221	65045338	Environment and Local Gov't		524 East Riverside Drive	1	
222	65045122	Dept. of Supply and Services		Main Street	1	
223	65044703	Dept. of Supply and Services		Main Street	1	
224	65046336	Valcon Ltd.		Armstrong Street	3	Commercial
225	65046369	Valcon Ltd.		Armstrong Street	3	Commercial
226	65046237	Dept. of Supply and Services		Armstrong Street	1	
227	65046716	Dept. of Supply and Services		Armstrong Street	1	
228	65173064	Dept. of Supply and Services		Main Street	1	
229	65113763	Steven A Cote Construction Ltd.		Armstrong Street	3	Commercial

**PERTH-ANDOVER REDEVELOPMENT
STATUS OF EXISTING PROPERTIES**

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ID #	PID	Owner	Owner2	Location	Property Status	
230	65151128	Dept. of Supply and Services		Armstrong Street	1	
231	65043291	Dept. of Supply and Services		Armstrong Street	1	
232	65044711	Dept. of Supply and Services		Armstrong Street	1	
233	65139818	Dept. of Supply and Services		Armstrong Street	1	
234	65044646	Dept. of Supply and Services		Armstrong Street	1	
235	65046419	Dept. of Supply and Services		Armstrong Street	1	
236	65046260	Dept. of Supply and Services		Armstrong Street	1	
237	65046401	Dept. of Supply and Services		Armstrong Street	1	
238	65046385	NB Health and Community Services		Hospital Street	1	
239	65187056	Hotel Dieu St. Joseph Perth Andover Inc		Main Street	1	
240	65187064	Hotel Dieu St. Joseph Perth Andover Inc		Main Street	1	
241	65173056	Dept. of Supply and Services		Main Street	1	
242	65045171	Hotel Dieu St. Joseph Perth Andover Inc		10 Woodland Hill	3	Hospital
243	65046724	Dr. Lillian C. Linton Professional Corp.		500 East Riverside Drive	3	Commercial
244	65099954	DNR		CPR	1	
245	65170144	Environment and Local Gov't		Main Street	1	
246	65044687	Environment and Local Gov't		East Riverside Drive	1	
247	65162760	Environment and Local Gov't		East Riverside Drive	1	
248	65044695	Dept. of Supply and Services		Main Street	1	
249	65162752	Dept. of Supply and Services		Main Street	1	
250	65045262	George Roland Sirois		Main Street	1	
251	65170151	NB Power		Main Street	1	
252	65170169	NB Power		Main Street	1	
253	65170177	NB Power		Main Street	1	
254	65170185	NB Power		Main Street	1	
255	65170193	NB Power		Main Street	1	
256	65170201	NB Power		Main Street	1	
257	65170219	NB Power		Main Street	1	
258	65170227	NB Power		Main Street	1	
259	65170235	NB Power		Main Street	1	
260	65170243	NB Power		Main Street	1	
261	65170250	NB Power		Main Street	1	
262	65170268	NB Power		Main Street	1	
263	65170276	NB Power		Main Street	1	
264	65169468	NB Power		Route 105	1	
265	65044620	Margaret E McLaughlin		436 East Riverside Drive	3	Residential
266	65138760	Village of Perth-Andover		105 Highway	3 (all on same PAN)	Lift Station
267	65138752	Village of Perth-Andover		105 Highway		
268	65161341	Village of Perth-Andover		Main Street	1	
269	65044760	William Peter Dunlap	James David Dunlap	Main Street	2	no services - old barn - storage building??
270	65044877	Village of Perth-Andover		Main Street	1	
271	65044869	Village of Perth-Andover		Main Street	1	
272	65044844	Verda Hanson		Main Street	1	
273	65045536	Doreen Sooley		Main Street	1	
274	65113524	Dept. of Supply and Services		Main Street	1	
275	65044851	Verda Hanson		Main Street	2	electricity on, no water
276	65044828	Douglas Darryel Pearson		Main Street	3 (all on same PAN)	Commercial & Residential
277	65113540	Douglas Darryel Pearson		Main Street		(owner occupied apartment)

**PERTH-ANDOVER REDEVELOPMENT
STATUS OF EXISTING PROPERTIES**

ID #	PID	Owner	Owner2	Location	Property Status
278	65044810	Dept. of Supply and Services		Main Street	1
279	65044802	Dept. of Supply and Services		Main Street	1
280	65044794	Dept. of Supply and Services		Main Street	1
281	65044786	Dept. of Supply and Services		Main Street	1
282	65025090	Verda Hanson		Main Street	1
283	65045619	Dept. of Supply and Services		Main Street	1
284	65044737	Dept. of Supply and Services		Main Street	1
285	65045114	Dept. of Supply and Services		Main Street	1
286	65043309	Dept. of Supply and Services		Main Street	1

*Property Status Options:
1 - "Vacant"
2 - "Occupied but Abandoned"
3 - "Occupied and Active"

Appendix C - Right-of-Way Requirement Summary for Option A

**PERTH-ANDOVER REDEVELOPMENT
PROPERTY ACQUISITION SUMMARY**

NO.	PID	PAN	OWNER	LOCATION	PROPERTY TYPE	EXISTING PROPERTY SIZE (m²)	PROPERTY REQUIRED (m²)	HOUSE / BUSINESS IMPACTED (YES/NO)	REASON FOR ACQUISITION
1	65191082	4472526	Daniel Roy Trites	Gulch Road	Residential	1,030	140	Yes	Transportation Improvement
2	65043226	313322	Winston Riddell	Gulch Road	Residential	540	540	Yes	Transportation Improvement
3	65164600	4472592	Brian A Plant	Gulch Road	Access	550	550	No	Transportation Improvement
4	65043259	313356	Daryll Christenson	Gulch Road	Residential	550	550	Yes	Transportation Improvement
5	65113623	3823596	Judy A McGuire	Gulch Road	Residential	390	390	Yes	Transportation Improvement
6	65040750	4166125	Dorothy Riddell	Gulch Road	Woodlot	2,910	2,910	No	Transportation Improvement
7	65150864	4166125	Dorothy Riddell	Gulch Road	Residential	1,060	1,060	Yes	Transportation Improvement
8	65150856	4166133	Bell Canada	Mountain Street	Residential	930	930	Yes	Transportation Improvement
9	65043267	4166125	Dorothy Riddell	Mountain Street	Woodlot	3,310	3,310	No	Transportation Improvement
10	65043325	313429	Robert Alton Walker	Gulch Road	Residential	850	10	No	Transportation Improvement
11	65043333	313437	Sherry Lynn Martin	Mountain Street	Residential	1,300	150	No	Transportation Improvement
12	65043341	313445	Nancy Lee Tompkins	Mountain Street	Residential	1,330	280	No	Transportation Improvement
13	65043358	313453	Jeremy Wayne Hill	Mountain Street	Residential	1,490	490	No	Transportation Improvement
14	65108904	4042127	Caroline D Goodine	Mountain Street	Vacant / Woodlot	1,960	1,130	No	Transportation Improvement
15	65043440	4042127	Caroline D Goodine	Terrace Street	Vacant / Woodlot	5,460	4,860	No	Transportation Improvement
16	65043275	313372	Carl Dana McLaughlin	Gulch Road	Residential	4,810	1,280	No	Transportation Improvement
17	65043531	313631	Catherine Lynn Williams	Terrace Street	Residential	850	110	No	Transportation Improvement
18	65043580	313681	Tamara Lee Swazey	Terrace Street	Residential	3,270	2,000	No	Transportation Improvement
19	65043614	313712	Wayne H Goodine	Terrace Street	Residential	2,240	1,110	No	Transportation Improvement
20	65202921	313746	Brian Matthew McFadden	Terrace Street	Residential	3,780	1,970	No	Transportation Improvement
21	65199523	5561116	Joel Douglas Parish	Terrace Street	Residential	5,750	1,890	No	Transportation Improvement
22	65199515	313762	Alexander Carl Boyd	Terrace Street	Residential	10,610	5,590	No	Transportation Improvement
23	65108854	313796	Ronald L Ingraham	Terrace Street	Vacant / Woodlot	2,700	560	No	Transportation Improvement
24	65046872	316841	Northwest Builders Ltd	Terrace Street	Vacant / Woodlot	1,010	190	No	Transportation Improvement
25	65043713	313819	Dennis Wade Baker	Terrace Street	Residential	550	530	Yes	Transportation Improvement
26	65045908	3826722	William Peter Dunlap	Marshall Street	Vacant / Woodlot	204,040	11,040	No	Transportation Improvement
27	65167272	313877	Preston Otis Hanscom	Marshall Street	Vacant	160	20	No	Flood Mitigation
28	65167264	313877	Preston Otis Hanscom	Marshall Street	Vacant	310	110	No	Flood Mitigation
29	65167256	313877	Preston Otis Hanscom	Marshall Street	Residential	510	30	No	Flood Mitigation
30	65043812	313893	Elva Mae Shepherd	Marshall Street	Residential	1,070	220	No	Flood Mitigation
31	65043838	313916	Eileen A Hansen	Marshall Street	Residential	320	320	Yes	Flood Mitigation
32	65168031	313924	Eileen A Hansen	Marshall Street	Vacant	740	740	No	Flood Mitigation
33	65043846	313908	Eileen A Hansen	Marshall Street	Residential	950	950	Yes	Flood Mitigation
34	65171084	4918263	Natural Resources and Energy	Trail	Vacant	180	180	No	Flood Mitigation
35	65043820	313908	Eileen A Hansen	Marshall Street	Residential	1,310	1,310	Yes	Flood Mitigation
36	65043762	313869	Eileen A Hansen	Marshall Street	Residential	240	240	Yes	Flood Mitigation
37	65043754	313851	Geraldine Innis	Marshall Street	Residential	2,860	2,860	Yes	Flood Mitigation
38	65157752	313827	Margaret Ann Everett	Marshall Street	Vacant	100	100	No	Flood Mitigation
39	65043721	313827	Margaret Ann Everett	Marshall Street	Residential	1,230	1,230	Yes	Flood Mitigation
40	65043747	313843	John Douglas Hanscomb	Terrace Street	Vacant	1,150	1,150	No	Flood Mitigation
41	65173643	315447	Natural Resources and Energy	Trail	Vacant	2,750	1,590	No	Flood Mitigation
42	65154866	313770	John C Inman	Trail	Vacant	900	510	No	Flood Mitigation
43	65043671	313770	John C Inman	Terrace Street	Residential	2,250	340	No	Transportation Improvement
44	65043622	3535402	Dean Eric McAllister	Terrace Street	Residential	2,310	600	No	Transportation Improvement
45	65043937	314019	Tommy Russell Dixon	Main Street	Residential	2,210	1,040	Yes	Flood Mitigation
46	65043911	313990	Harry D Sadler	Main Street	Residential	2,930	920	Yes	Flood Mitigation
47	65216954	6311328	Jonathan Robin Gagnon	Terrace Street	Residential	1,940	160	No	Flood Mitigation

**PERTH-ANDOVER REDEVELOPMENT
PROPERTY ACQUISITION SUMMARY**

NO.	PID	PAN	OWNER	LOCATION	PROPERTY TYPE	EXISTING PROPERTY SIZE (m²)	PROPERTY REQUIRED (m²)	HOUSE / BUSINESS IMPACTED (YES/NO)	REASON FOR ACQUISITION
48	65043317	313411	Elizabeth Anne Wallace	Main Street	Residential	9,360	180	No	Flood Mitigation
49	65134876	314001	Automotive Village Limited	Main Street	Commercial	30	30	Yes	Flood Mitigation
50	65043929	314001	Automotive Village Limited	Main Street	Commercial	190	190	Yes	Flood Mitigation
51	65043945	314027	Carl Dana McLaughlin	Main Street	Commercial	200	200	Yes	Flood Mitigation
52	65043952	314035	Brian E Parker	Main Street	Commercial	300	300	Yes	Flood Mitigation
53	65043960	314043	Eileen A Hansen	Main Street	?	430	430	Yes	Flood Mitigation
54	65043978	314051	Village of Perth Andover	Main Street	Commercial	520	520	Yes	Flood Mitigation
55	65043986	314069	Mildred G Green	Main Street	Commercial	550	550	Yes	Flood Mitigation
56	65211187	6076643	Marty's Wash and Detail Center Ltd	Main Street	Vacant	1,550	1,550	No	Flood Mitigation
57	65044018	314093	Marty's Electric Limited	Main Street	Commercial	720	720	Yes	Flood Mitigation
58	65113557	3535494	Donald D Nye	Second Street	Vacant	360	360	No	Flood Mitigation
59	65113425	3535494	Donald D Nye	Second Street	Vacant	50	50	No	Flood Mitigation
60	65046658	4615409	Donald D Nye	Second Street	Commercial	180	180	Yes	Flood Mitigation
61	65109068	4615409	Donald D Nye	Second Street	Commercial	30	30	Yes	Flood Mitigation
62	65044034	4615409	Donald D Nye	Second Street	Commercial	140	140	Yes	Flood Mitigation
63	65109050	4615409	Donald D Nye	Second Street	Commercial	70	70	Yes	Flood Mitigation
64	65043804	5451599	Village of Perth Andover	Second Street	Vacant	90	90	No	Flood Mitigation
65	65043796	5451599	Village of Perth Andover	Second Street	Vacant	170	170	No	Flood Mitigation
66	65044364	314441	Fidile Hubert Albert	Second Street	Commercial	100	100	Yes	Flood Mitigation
67	65044026	314108	Kevin William McCarthy	Main Street	Commercial	520	520	Yes	Flood Mitigation
68	65044042	314124	Faith Arlene Moorcraft	Main Street	Commercial	180	180	Yes	Flood Mitigation
69	65108987	314132	Carl Dana McLaughlin	Second Street	Commercial	60	60	Yes	Flood Mitigation
70	65044059	314132	Carl Dana McLaughlin	Main Street	Commercial	290	290	Yes	Flood Mitigation
71	65044067	314140	Valley Insurance Agency 1982 Limited	Main Street	Commercial	90	90	Yes	Flood Mitigation
72	65090243	314158	J M Stewart Limited	Second Street	Commercial	140	140	Yes	Flood Mitigation
73	65044075	314158	J M Stewart Limited	Main Street	Commercial	300	300	Yes	Flood Mitigation
74	65044083	4615873	Carl Dana McLaughlin	Main Street	Commercial	300	300	Yes	Flood Mitigation
75	65044091	4615873	Carl Dana McLaughlin	Main Street	Commercial	370	370	Yes	Flood Mitigation
76	65044109	314182	Robert Charles Davenport	Main Street	Commercial	330	330	Yes	Flood Mitigation
77	65044117	314190	P A Futuria Investment Ltd	Main Street	Commercial	630	630	Yes	Flood Mitigation
78	65108938	3475898	Village of Perth Andover	Second Street	Vacant	190	190	No	Flood Mitigation
79	65108920	3475898	Village of Perth Andover	Second Street	Commercial	190	190	Yes	Flood Mitigation
80	65089070	315918	J M Stewart Limited	Second Street	Commercial	190	190	Yes	Flood Mitigation
81	65045882	315918	J M Stewart Limited	Second Street	Commercial	360	360	Yes	Flood Mitigation
82	65043887	313966	Village of Perth Andover	Second Street	Commercial	390	390	Yes	Flood Mitigation
83	65044356	314433	Carl Dana McLaughlin	Second Street	Commercial	580	580	Yes	Flood Mitigation
84	65043861	3703356	Village of Perth Andover	Station Street	Residential	2,350	2,350	Yes	Flood Mitigation
85	65044125	314205	Bank of Nova Scotia	Main Street	Commercial	710	710	Yes	Flood Mitigation
86	65044133	314213	Shawcor Inc	Main Street	Commercial	180	180	Yes	Flood Mitigation
87	65044158	314239	Shawcor Inc	Main Street	Commercial	520	520	Yes	Flood Mitigation
88	65044166	314247	Ryan C Post Pharmacy Ltd	Main Street	Commercial	350	350	Yes	Flood Mitigation
89	65044349	3503065	4539265 Canada Inc	Station Street	Commercial	370	370	Yes	Flood Mitigation
90	65044331	3503065	Ryan C Post Pharmacy Ltd	Station Street	Commercial	680	680	Yes	Flood Mitigation
91	65044174	314255	Johnson Drug Store Limited	Main Street	Commercial	720	720	Yes	Flood Mitigation
92	65044182	314263	Bank of Montreal	Main Street	Commercial	780	780	Yes	Flood Mitigation
93	65109027	314263	Bank of Montreal	Station Street	Vacant / Parking	480	480	Yes	Flood Mitigation
94	65116915	313885	Eileen A Hansen	Station Street	Residential	410	410	Yes	Flood Mitigation

**PERTH-ANDOVER REDEVELOPMENT
PROPERTY ACQUISITION SUMMARY**

NO.	PID	PAN	OWNER	LOCATION	PROPERTY TYPE	EXISTING PROPERTY SIZE (m ²)	PROPERTY REQUIRED (m ²)	HOUSE / BUSINESS IMPACTED (YES/NO)	REASON FOR ACQUISITION
95	65045239	315316	Village of Perth Andover	Station Street	Residential	330	330	Yes	Flood Mitigation
96	65166894	3535436	Perth-Andover Developments Inc	Station Street	Commercial	1,960	1,960	Yes	Flood Mitigation
97	65192551	3535428	Perth-Andover Developments Inc	Station Street	Commercial	920	920	Yes	Flood Mitigation
98	65044307	314386	Environment and Local Gov't	Station Street	Abandoned	240	240	Yes	Flood Mitigation
99	65044299	314378	Environment and Local Gov't	Station Street	Vacant	250	250	No	Flood Mitigation
100	65077273	316053	Joseph Raymond Durepos	Station Street	Residential	80	80	Yes	Flood Mitigation
101	65046039	316053	Joseph Raymond Durepos	Station Street	Residential	210	210	Yes	Flood Mitigation
102	65077331	316053	Joseph Raymond Durepos	Station Street	Residential	40	40	Yes	Flood Mitigation
103	65166886	4477712	Raymond Durepos	Station Street	Commercial	1,050	1,050	Yes	Flood Mitigation
104	65109019	314297	Environment and Local Gov't	Station Street	Vacant	410	410	No	Flood Mitigation
105	65044216	314297	Environment and Local Gov't	Main Street	Vacant	620	620	No	Flood Mitigation
106	65022493	314297	Environment and Local Gov't	Main Street	Vacant	130	130	No	Flood Mitigation
107	65045221	315308	Environment and Local Gov't	Main Street	Vacant	1,150	1,150	No	Flood Mitigation
108	65044208	314289	Benjoy Inc	Main Street	Commercial	690	690	Yes	Flood Mitigation
109	65045098	315170	Village of Perth Andover	Main Street	Commercial	660	660	Yes	Flood Mitigation
110	65043739	313835	Village of Perth Andover	Main Street	Commercial	1,470	1,470	Yes	Flood Mitigation
111	65180275	6364070	Natural Resources and Energy	Station Street	Vacant	960	960	No	Flood Mitigation
112	65045916	315942	Perth-Andover Non Profit Housing Corp Inc	Station Street	Residential	1,740	1,740	Yes	Flood Mitigation
113	65044281	314360	Village of Perth Andover	Station Street	Abandoned	590	590	Yes	Flood Mitigation
114	65044224	4526244	052819 N.B. Limited	Main Street	Vacant / Parking	610	610	No	Flood Mitigation
115	65044232	4526244	052819 N.B. Limited	Main Street	Commercial	820	820	Yes	Flood Mitigation
116	65045288	315366	052819 N.B. Limited	Main Street	Vacant / Parking	1,810	1,810	No	Flood Mitigation
117	65044265	4901012	Wayne Lawrence	Trail	Vacant	1,550	1,550	No	Flood Mitigation
118	65044273	4901012	Wayne Lawrence	Trail	Vacant	190	190	No	Flood Mitigation
119	65044240	314328	Imperial Oil Limited / Nat'l Resources	Trail	Vacant	2,360	2,360	No	Flood Mitigation
120	65187940	6046567	Perth-Andover Mainstop Inc	Main Street	Commercial	3,120	3,120	Yes	Flood Mitigation
121	65044380	6046567	Perth-Andover Mainstop Inc	Main Street	Commercial	370	370	Yes	Flood Mitigation
122	65206781	6046567	Perth-Andover Mainstop Inc	Main Street	Vacant	1,060	1,060	No	Flood Mitigation
123	65044430	314514	Lori Lee Taylor	Main Street	Vacant	430	220	No	Flood Mitigation
124	65044463	314548	Lori Lee Taylor	Main Street	Vacant	430	160	No	Flood Mitigation
125	65195349	314556	DTI	Main Street	Vacant	900	100	No	Flood Mitigation
126	65044489	314564	Environment and Local Gov't	Main Street	Vacant	670	40	No	Flood Mitigation
127	65203622	5715600	Victoria Villa Inc	Main Street	Institutional	5,050	170	No	Flood Mitigation
128	65044455	314530	Environment and Local Gov't	Main Street	Vacant	650	130	No	Flood Mitigation
129	65044448	314522	Environment and Local Gov't	Main Street	Vacant	610	610	No	Flood Mitigation
130	65044414	314491	Environment and Local Gov't	Main Street	Abandoned	1,540	1,540	Yes	Flood Mitigation
131	65038697	6232320	Peter Moore	Main Street	Vacant	2,170	2,170	No	Flood Mitigation
132	65113516	314475	Environment and Local Gov't	Main Street	Vacant	200	200	No	Flood Mitigation
133	65044398	314475	Environment and Local Gov't	Main Street	Vacant	510	510	No	Flood Mitigation
134	65044372	314459	Government of Canada - Public Works	Main Street	Commercial	730	730	Yes	Flood Mitigation
135	65044323	6364088	Canada Post Corporation / Nat'l Resources	Main Street	Vacant / Parking	370	370	No	Flood Mitigation
136	65218166	6364088	Canada Post Corporation / Nat'l Resources	Main Street	Vacant	570	570	No	Flood Mitigation
137	65171068	6364070	Natural Resources and Energy	Station Street	Commercial	39,410	25,410	No	Flood Mitigation
138	65147381	4397263	Stephen Blake Dee	Woodland Hill Street	Residential	10,620	560	No	Flood Mitigation
139	65144982	3894539	Stephen Blake Dee	Woodland Hill Street	Vacant	6,150	400	No	Flood Mitigation
140	65144958	4918263	Natural Resources and Energy	Trail	Vacant	2,290	2,290	No	Flood Mitigation
141	65171233	6364070	Natural Resources and Energy	Trail	Vacant	2,190	610	No	Flood Mitigation

**PERTH-ANDOVER REDEVELOPMENT
PROPERTY ACQUISITION SUMMARY**

NO.	PID	PAN	OWNER	LOCATION	PROPERTY TYPE	EXISTING PROPERTY SIZE (m²)	PROPERTY REQUIRED (m²)	HOUSE / BUSINESS IMPACTED (YES/NO)	REASON FOR ACQUISITION
142	65171217	5715595	Dept. of Supply and Services	Trail	Vacant	90	10	No	Flood Mitigation
143	65171225	6364070	Natural Resources and Energy	Trail	Vacant	830	310	No	Flood Mitigation
144	65045189	5715595	Dept. of Supply and Services	Main Street	Vacant	16,780	110	No	Flood Mitigation
145	65044513	314598	Black Lion Restaurant & Pub Ltd	Main Street	Vacant	2,040	120	No	Flood Mitigation
146	65044539	314611	Black Lion Restaurant & Pub Ltd	Main Street	Vacant	1,630	70	No	Flood Mitigation
147	65044638	314718	Steven A Cote Construction Ltd	Armstrong Street	Light Industrial	6,200	1,380	No	Flood Mitigation
148	65046336	4974316	Valcon Ltd	Armstrong Street	Light Industrial	1,870	1,390	Yes	Flood Mitigation
149	65046369	316370	Valcon Ltd	Armstrong Street	Light Industrial	1,890	1,880	Yes	Flood Mitigation
150	65045338	315413	Environment and Local Gov't	Main Street	Vacant	1,370	30	No	Flood Mitigation
151	65045122	4768309	Dept. of Supply and Services	Main Street	Vacant	1,410	1,410	No	Flood Mitigation
152	65113763	4974324	Steven A Cote Construction Ltd	Armstrong Street	Vacant	340	340	No	Flood Mitigation
153	65151128	4768309	Dept. of Supply and Services	Armstrong Street	Vacant	70	70	No	Flood Mitigation
154	65043291	4768309	Dept. of Supply and Services	Armstrong Street	Vacant	280	280	No	Flood Mitigation
155	65044711	4768309	Dept. of Supply and Services	Armstrong Street	Vacant	340	340	No	Flood Mitigation
156	65139818	4768309	Dept. of Supply and Services	Armstrong Street	Vacant	230	230	No	Flood Mitigation
157	65044646	4768309	Dept. of Supply and Services	Armstrong Street	Vacant	440	440	No	Flood Mitigation
158	65046716	4768309	Dept. of Supply and Services	Woodland Hill Street	Vacant /Parking	1,140	1,140	No	Flood Mitigation
159	65046237	4768309	Dept. of Supply and Services	Woodland Hill Street	Vacant /Parking	1,150	1,150	No	Flood Mitigation
160	65115560	6305474	Robert Gordon Titus	Route 109	Vacant /Woodlot	48,750	2,930	No	Transportation Improvement
161	65167652	4618180	Timothy Robert Titus	Sunrise Street	Residential	3,790	300	No	Transportation Improvement
162	65050353	4618172	Robert Gordon Titus	Sunrise Street	Vacant	12,350	4,000	No	Transportation Improvement
163	65048936	319093	Philip John Swazey	Route 130	Residential	2,320	140	No	Transportation Improvement
164	65140436	319093	Philip John Swazey	Route 130	Residential	1,240	270	No	Transportation Improvement
165	65152514		NB Power	Route 130	Residential	100	90	No	Transportation Improvement
166	65175176		NB Power	Route 130	Vacant	290	290	No	Transportation Improvement
167	65048902	319069	669577 N.B. Inc	Route 130	Vacant	790	790	No	Transportation Improvement
168	65015794	319069	669577 NB Inc.	Route 130	Vacant	410	410	No	Transportation Improvement
169	65048894	4165991	669577 N.B. Inc	Route 130	Residential	1,130	690	Yes	Transportation Improvement
170	65049025	4165991	669577 N.B. Inc	Route 130	Commercial	1,670	1,040	Yes	Transportation Improvement
171	65048886	319043	DTI	Route 130	Vacant / Parking	3,110	650	No	Transportation Improvement
TOTAL						532,320	161,190		