

Staff Report to Committee of the Whole of the Town of Perth



Date Presented: March 5, 2024
From: Cathy McNally, Director of Community Services
Subject: Capital Project: Public Work Garage Options
Report Number: 2024- COW-4.5

For Information Only: No
Delegation: No
Presentation: Yes
Attachment(s): Yes

Recommendation:

As recommended by the Committee of the Whole, be it resolved that the Council of the Town of Perth direct staff to move forward with the architectural design to construct an operations space beside the existing Public Works Garage as well as finalize renovation plans on the existing facility, located at 15 Sunset. Blvd., and report back to Council; and further that the carry forward amount of the unspent 2023 budget for the Garage Needs Analysis equal to \$54,000 be pre-approved to fund this proposed design work, as presented in Report 2024-COW-4.5

Executive Summary:

The Public Works Garage is in need of office and meeting space as well as bathroom facilities. The second-story mezzanine does not meet Building Code and can no longer be used. A permanent solution is needed for this space as well as completing upgrades to the existing garage. This report provides an overview of all the available options, including the staff-recommended option.

Strategic Plan:

Collaboration: We are committed to working with citizens, staff, community partners, investors, and other governments for the best interests and outcomes for our community

Greenhouse Gas Reduction Plan 2016-2030:

A renovated facility will provide significant energy savings and reduction in greenhouse gas emissions.

Background/Discussion:

In 2022, the Public Works Garage's second-story mezzanine was deemed unsafe for occupancy as it does not meet compliance with respect to the Building Code. As a result, staff have since been using a rented trailer for their office and meeting space and bathroom facility. This is a short-term solution and requires a permanent fix. The garage itself also requires renovations.

The Town retained the services of Eastern Engineering Group Inc. to complete a feasibility report on the existing structure which was constructed in the 1960s. The 9,700 square-foot building area include offices, storage/mechanical rooms, storage bays and service bays.

The feasibility study outlines two options for the existing site.

Eastern Engineering Group Inc. also completed a civil engineering report to determine the estimated costs to build a road as well as integrate water and sewer services to the town-owned property located north of Hwy. 7. Below is a summary of all options.

Option #1: Renovate the existing garage.

This option would see upgrades to the existing garage including: a fabrication bay, a drive through bay, hoist framing and parts storage. The renovation would also include a new designated office space, which would be independently framed and conditioned. The new space would be about 40'x36' and include office space, training space, a new washroom and break room facilities for staff. The new space would be located on the south side of the garage, and the Rideau Valley Conservation Authority (RVCA) has indicated it would not encroach on the flood plain area and is acceptable for building. The 2023 Class D estimate on this work would be \$2.3 million with the site works.

Option #2: Demolish the existing garage and rebuild on the current site.

This plan would see the demolition of the existing garage and build a brand-new facility at 15 Sunset Blvd. While the new building would be a welcomed addition and upgrade from the 70-year-old facility, the staff would be without a home base and operating garage for approximately one (1) year. Town staff asked Lanark County if the Environmental Services team could utilize their space and the County staff advised that they are at capacity. The Fire Hall does not have the infrastructure to support the garage needs. The Class D estimate for this construction was completed in 2023 and estimated at \$3.8 million as well as \$227,500 for site works, which includes grading, paving and minor landscaping.

Option #3: Build a new facility on town property in a new location.

This option would see a new facility build that would also help meet the future needs of the community. The estimated servicing costs for the property located north of Hwy. 7 would be between \$3.5-\$5 million in addition to the estimated \$3.8 million for the new facility. The north of Hwy. 7 location would be a prime location as there is still plenty of space to grow in that area, and development is expected in the future. However, the investment and time to set up the site goes beyond the projected budget estimates for completing this project. Town staff looked at other town-owned properties including the industrial area off Rogers Road and near the snow dump area off County Road 10 toward Franktown. Both of these locations would also need servicing which would add to the build costs.

When considering timing, capacity, and budget, Town staff recommend moving forward with Option #1, which is to renovate the existing garage and build a new office/break room space adjacent to the garage. The next step would be to consult with the Environmental Services staff and then complete an architectural design with an updated estimate. The design and budgeted amount would be brought forward for Council's review and approval prior to the tendering process.

Please see attached reports on the feasibility study for the existing garage and the civil engineering report for the north of Highway 7 property.

Options:**Option 1: Recommended:**

As recommended by the Committee of the Whole, be it resolved that the Council of the Town of Perth direct staff to move forward with the architectural design to construct an operations space beside the existing Public Works Garage as well as finalize renovation plans on the existing facility, located at 15 Sunset. Blvd., and report back to Council; and further that the carry forward amount of the unspent 2023 budget for the Garage Needs Analysis equal to \$54,000 be pre-approved to fund this proposed design work, as presented in Report 2024-COW-4.5.

Option 2: Not Recommended:

Demolish the existing Public Works Garage and build a new facility at the current location.

Option 3: Not Recommended:

Service the property north of Hwy. 7 and build a new Public Works facility at that location.

Financial Considerations:

There was \$60,000 in the 2023 budget as a one time operating budget line item that allowed the Town to complete the engineering studies. Currently there is a balance of approximately \$54,000 to carry forward to 2024 that staff propose utilizing for the architectural design work.

Any further funding to complete the capital project would be determined through future Council deliberations once the design and associate project budget is finalized.

Applicable Policy/Legislation:

2023 Budget By-law

Others Consulted:

Directors

Attachments:

[Attachment 1 - Perth Works Garage Feasibility Report-Eastern Engineering Group Inc.](#)

[Attachment 2 - North of Hwy. 7 Public Works Garage Feasibility Study -Eastern Engineering Group Inc.](#)

Respectfully submitted,

Cathy McNally, Director of Community Services

Approved by,

Michael Touw, CAO



PERTH

**TOWN OF PERTH
PERTH WORKS GARAGE
15 SUNSET BLVD., PERTH, ONTARIO
FEASIBILITY REPORT**

MARCH 28, 2023
PROJECT NO. 10810

*DRAFT VERSION 1.1
REV. APRIL 3, 2023*

PREPARED FOR:

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EXECUTIVE SUMMARY

Eastern Engineering Group Inc. has completed a feasibility study for the works garage in Perth, ON. Based on our ongoing review of the facility, it currently underserves the needs of the community and does have compliance concerns with respect to the building code.

Due to the above aforementioned concerns, our firm was commissioned to provide recommendations for the facility to be able to serve the community with some budgetary estimates included to better understand the cost associated with these options.

Throughout this report, we will investigate the current conditions of the facility, as well as the needs of the facility to serve the community to the required extent. Based on these findings, we will present options for the renovation/alteration of the existing space as well as the replacement of the space in entirety. Each option will outline the benefits of each option.

The report is completed with the intent to be presented to a group of invested partners of the Perth Works Garage facility to better understand the needs of the building and the cost associated with achieving those needs.

OBJECTIVE & METHODOLOGY

Eastern Engineering Group Inc. was retained at the request of Shannon Baillon, Director of Community Services for The Town of Perth, to conduct a feasibility assessment for the Perth Public Works building. The purpose of the study was to conduct a cost benefit analysis of the existing facility with respect to the needs of the Town and determine a feasible path forward for continued use of the facility.

The study was completed with the use of multiple condition assessment reports completed by Eastern Engineering Group over a number of years. The undersigned has completed the reports in collaboration with Matt Morris, P.Eng. for the facility.

The feasibility study has been assessed with two (2) general outcomes. The study reviews the required needs as discussed with the owner and the necessary alterations to the existing facility versus the cost to remove the existing facility and build a new building capable of providing all of the needs.

BUILDING DESCRIPTION

The building is located at 15 Sunset Blvd., Perth and was constructed in multiple phases of construction, we estimate the original building would have been constructed in the mid 1960's with additions on the east and east elevation completed at later periods of construction. The building contained various uses which included the offices, storage / mechanical rooms, storage bays and service bays. The building area measured 128'-0"x76'-0" (9,730 sq.ft. approx.) is provided with a mezzanine inside the building approximately 15'-0"x40'-0" which serves the office spaces, employees facilities and storage. The building is constructed of pre-engineered metal framework and is provided with minimal insulation in the roof and exterior walls. The south elevation of the building is provided with overhead doors for five (5) bays used for storage and service bays. The

mezzanine was constructed of wood framed construction supported by steel post and beam.

BUILDING SERVICES AND UTILIZATION

The following items have been listed as critical utilizations and needs for the continued use of the facility.

REQUIREMENT	CURRENT UTILIZATION	REQUESTED UTILIZATION
Storage bays	5 bays (3 storage and 1 service)	4 bays – 1 service bay
drive through bay	No through bay or site works to support through bay	Minimum 1 bay drive through
Oil and grit interceptors	None provided	Min. code requirement
Storage and mezzanine	Current mezzanine does not meet loading or fire safety requirements	Compliant mezzanine to house facilities such as washrooms and change rooms
Salt storage	Open air storage	Covered storage
Satellite building/offices	Offices in current service bay	Offices to support administrative staff as well as public works staff
Updated energy efficiency	Minimal insulation provided, no code mandate for energy efficiency	Limit utility cost to the building.
Hoist	No hoist existing	1 hoist required
Fabrication shop/welding bay	No current allowance	Dedicated facility area for metal fabrications
Storage for utilizes department	Limited space for storage of large items	Include secure storage and piping racks
Training room	No space allotted	Permit a meeting room of up to 14 persons
Washrooms	One facility provided	Provide 2-3 fixtures total and allowance for both sexes
Building Finishes	Lack of finishes provided	Provide abuse resilient finishes in occupied spaces
Provide Decontamination wash bay	No allotment	Permit the washing of gear and equipment for proper st
Hanging area for drying	No Allotment	Hanging of gear and equipment for drying after washing

Based on the above noted items, we have concluded that the existing building will require significant renovations and alterations to accommodate the needs for the future intended use. It is our opinion that in addition to the renovation of the existing space an expansion of approximately 40'x36' would be required to service the use of offices and meeting rooms while the existing building would be utilized to facilitate the service garage.

Site works for an addition/alteration to the building would be very similar in nature to that for a new construction, as such cost difference between the various paths would be negligible.

To allow for a salt storage facility in both options a separate building will be required designed to store salt that is not susceptible to defects caused by chloride exposure. The storage area should be covered and provided with a minimum overhead door access for front end loaders and dump trucks. To complete our costing analysis, we have presumed a salt storage facility of 40x'80' with coverall canvas structure above would be used to meet the needs of the community.

FEASIBILITY FINDINGS AND RECOMMENDATIONS:

Based on the above noted items, Eastern Engineering Group Inc has prepared a Class D Estimate for budgeting purposes of the viable options for the existing works garage. In addition, we have provided allotments for the salt storage and site works allowance for both options. The following budgets are to be used for feasibility only, with the intent to complete a cost benefit analysis of maintaining the existing facility with renovations or demolition and constructing a new facility. Multiple factors will attribute to the selected path that at this time would be unknown without additional design and engineering completed. Examples include special foundations due to unknown subsurface conditions, environmental remediation due to contamination, upgrades from standard building materials or utility upgrades for the building services (water, sewage, electricity) etc.

We encourage the reader to also consider the building lifecycle when using the report to select feasibility of a project. While certain options will inherently have higher capital cost, these projects will have longer useful lifecycles. The cost-benefit analysis should be completed on a weighted basis with the years of useful service included in the evaluation.

We can offer the following potential options for compensation construction:

Site Works

Site works would include importing granules for the new buildings and or additions as well as grading and excavations as required. Some paving around the buildings would be expected, though not through the entire facility. It can reasonably be expected that minor landscaping elements such as topsoil and re-seeding is included; however no allowances for substantially denaturalization of the site has been accounted for.

Budget Estimate - \$227,500.00 +HST

Salt Storage Building

We have allowed for a 40x80 salt storage building using cast in place foundations, concrete slab floor and coverall canvas and metal frame building. To increase following we have anticipated a minimum foundation wall height of 8'-0" above finished grade. Finishes such as hardware, lighting and sealants would be minimal. Grading and backfill has been allotted for in the site works portion.

Budget Estimate - \$423,000.00 +HST

Option No.1 – Renovate Existing Garage

This option we have priced the general removal of the existing building services and interior spaces to permit the required renovations. We have also allowed for an addition to the north for a new designated office space which would be independently framed and conditioned. The new space would be modestly finished to standard quality of materials and be linked to the garage structure. We estimated the office to be 40'x36', which would allow for training space and new washroom/break room facilities for staff.

In the existing building all of the public works operational facilities would be relocated, including adding additional space for storage, a fabrication bay, and adding a drive through bay, including hoist framing and part storage. To complete our assessment, we do not expect the need to use mezzanines, however there would be an opportunity to add mezzanines in the future or for additional cost.

It is our opinion that the offices will serve the space for 50+ plus years and the garage can be expected to extend its service life for 20+ years.

Budget Estimate - \$2,026,000.00 +HST

Option No.2 – Reconstruct Existing Garage

This option we have allowed for the complete demolition of the existing repair garage and have proposed a new build. To better use the space available, we have presumed a portion of the building will be 2 storey to serve as the office space and conditioned portion of the facility while the remainder of the facility will be a high bay service garage with shops.

This option would give the best opportunity to upgrade services to the building such as electrical distribution to better serve the outlook for electrification of the future. The facility would need to be equipped with an elevator to access the 2nd floor offices for barrier free criteria, however the reduced spatial criteria for the conditioned space by being two stories will outweigh the added expense of an elevator.

New construction allows for serviceability functions such as hoist and storage racks to be integrated into the building structure, which ultimately reduces the required size of the building. Because we estimate the building would be capable of being 20% smaller in terms of net area, it can be expected that the energy cost to maintain the building would be reduced by equal measure if not greater.

It is our opinion that the demolition and reconstruction would be expected to serve the community for 50+ years inclusive of the garage space and offices.

Budget Estimate - \$3,875,000.00 +HST

Soft costs associated with each budget estimate such as engineering and architect fees, land purchases and permitting fees have not been considered for these budget estimates.

ASSUMPTIONS AND LIMITATIONS

This report includes pricing based on similar projects and our experience. We use costing yardsticks to assist in completing pricing based on square footage design which is associated with general construction methodology. Specialized items are not well captured.

Our budget estimates are completed based on the limitations outlined in this report and our understanding of general construction and engineering practices. Accuracy of the budget can be expected to be within +/-50%. Additional engineering and design will be required to trim the budgetary tolerances.

Please feel free to contact the undersigned if you have any questions or concerns.

Respectfully,
Eastern Engineering Group



Brandon Campbell, P.Eng
Director of Structural Engineering



PERTH

HERITAGE + HEART

FEASIBILITY STUDY
NORTH OF HIGHWAY 7



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FEBRUARY 2024

EXECUTIVE SUMMARY

Eastern Engineering Group Inc (EEG) was retained by the **Town of Perth (Town)** in 2023 to complete a feasibility study for construction of a new Public Works garage in the area north of Highway 7 between Wilson Street and Drummond Street West. The purpose was to determine if the project is viable, using the following as basis for determination:

- Servicing – water, sanitary/wastewater, storm
- Road Construction – urban cross-section
- Grading – slope of land and constructability
- Access - traffic

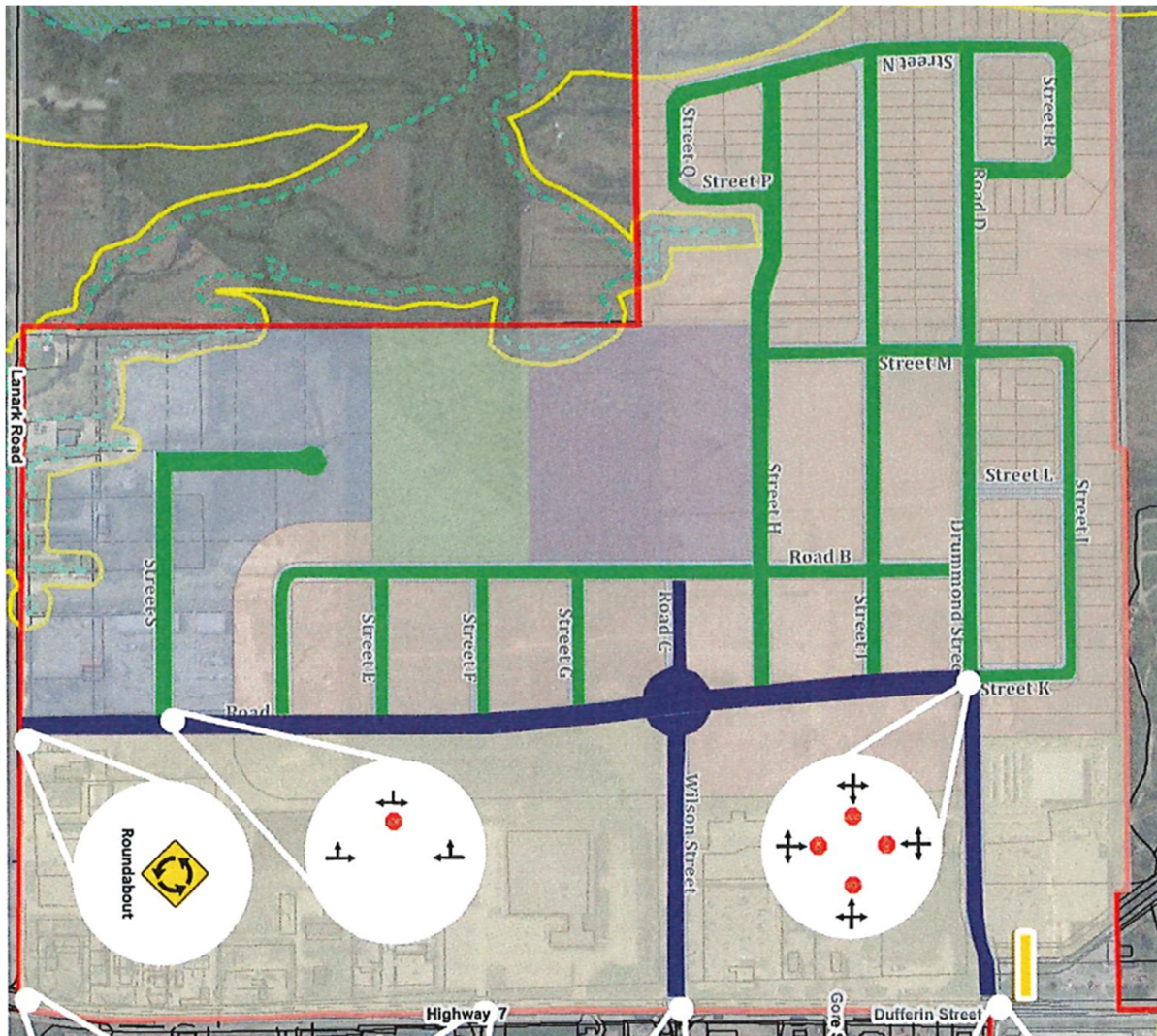
Using provided reports including **Infrastructure Master Plan for Area North of Highway 7, by Dillon Consulting 2013** and **North of 7 Master Plan – Functional Stormwater management Plan by Jp2g Consultants Inc, 2018**, Eastern Engineering has produced this feasibility report updated for 2024 and review by the Town of Perth.

In the Dillon report, several preferred alternatives were provided to the Town with respect to Transportation, Water Servicing, Wastewater Servicing and Stormwater Management for the entire area in their study. This report focuses on the area between Wilson Street and Drummond Street West, directly behind the developed area on Highway 7.

The road network proposed in the Dillon report has not been modified and street names will remain consistent with that report. Figure 1 below shows the street names.

This study will focus on existing Drummond Street West, Street K, Wilson Street and Street H. The proposed Public Works building will be located on the northwest corner of Street H and Street M.

Figure 1 – Dillon Street Layout



1.0 PURPOSE

Eastern Engineering Group was retained by the Town of Perth to prepare a feasibility study for construction of a new Public Works Garage/Office and servicing the lot and other areas from the connection to existing roads and infrastructure.

The area north of Highway 7 is a primary development area for the Town and this would be the premiere development for the area.

2.0 SUPPORTING INFORMATION

This study has been prepared in conjunction with the following reports provided by the Town of Perth.

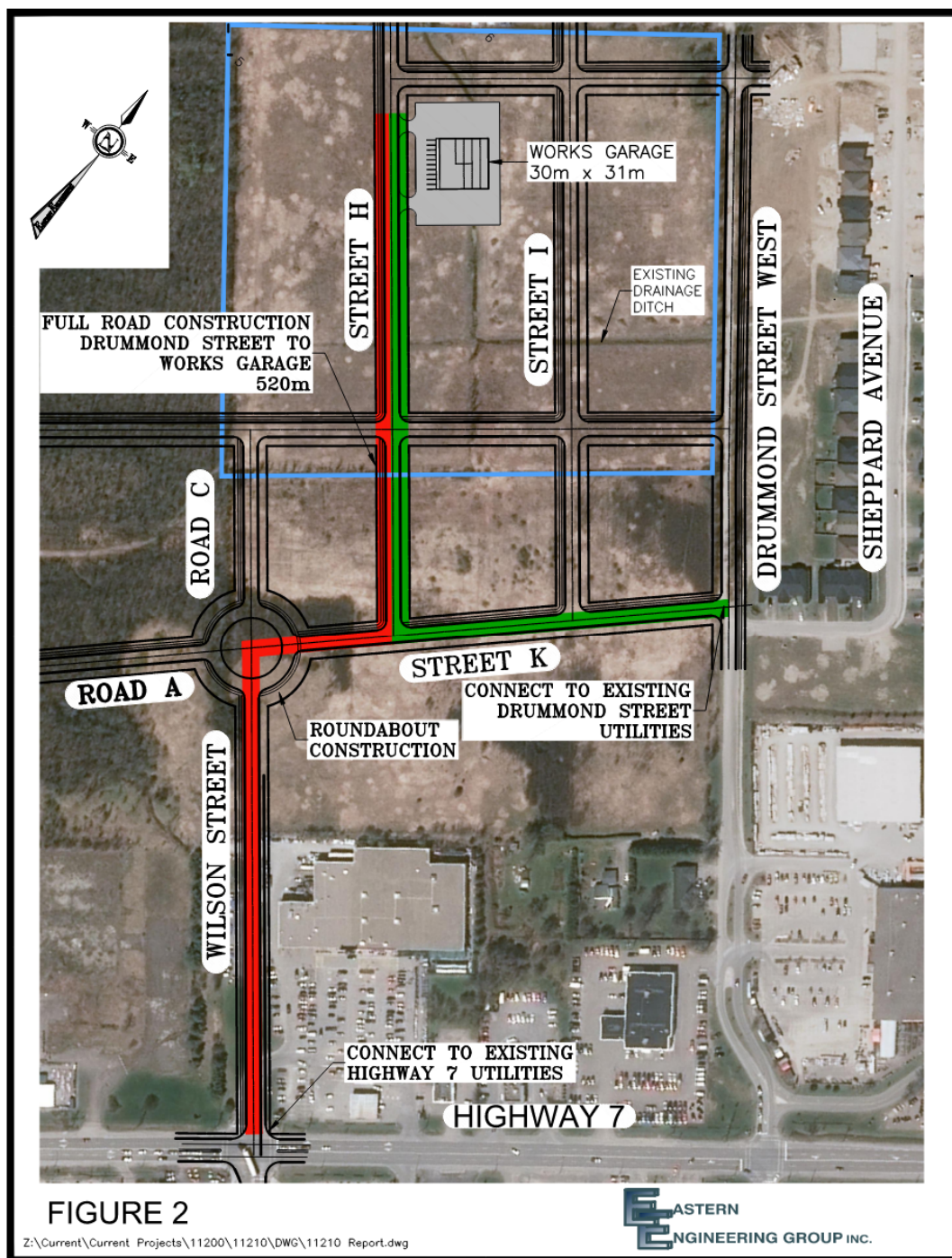
- 1. Infrastructure Master Plan for Area North of Highway 7, by Dillon Consulting 2013***
- 2. North of 7 Master Plan – Functional Stormwater management Plan by Jp2g Consultants Inc, 2018***

3.0 LOCATION FEASIBILITY

The proposed location of the Public Works Garage/Office is shown in Figure 2. The location is north of Highway 7, centred between Wilson Street (extension) and Drummond Street West (existing). The new location would be accessible in future from both Wilson and Drummond SW if the full street network was to be constructed.

On figure 2, there are two colored paths. The red path is from the intersection of Wilson Street and Highway 7. The green path is from the intersection of Street K and Drummond Street West. Each of these potential connections will be evaluated in the study to determine the most cost-effective method of servicing the site.

Figure 2 – Proposed Location of Works Garage



If a location closer to the service/road connection was chosen for the works garage location, the cost of servicing the site would be lessened due to length of construction. It is our opinion that a location closer to Highway 7 or Drummond Street West would provide a more cost-effective location.

4.0 GRADING FEASIBILITY

The land of the proposed development is a low, rising to the east and south (Highway 7). Based on the 2018 report, the area soils are clay with very low slope. A high groundwater elevation is expected due to the elevation of the lands. There is a grade drop from Highway 7/Wilson Street to the location of the proposed building of approximately 4m.

The location of the proposed works garage is relatively flat and would require import of fill to grade the lot for a new development. The servicing of the site and construction of the roadway would also have to be raised to avoid the potential for groundwater. The pad for the building and parking area would be constructed of granular materials placed on top of existing native soils. We would recommend a geotechnical report of the site to determine water table, bearing capacity and existing soil conditions prior to design of the site.

On site, drainage would be directed to the master stormwater basin as per Jp2g report via gravity. Storm sewers would need to be installed to achieve drainage to a master pond. The entire 85-acre parcel of land would need to be designed as per the Jp2g report.

Recommendation

The grading of the lands in the area of the proposed works garage would need to be graded with imported fill, including the proposed roadways. Imported fill costs for the Wilson Street option including the site and road right of way would be approximately \$2,000,000. The area is 36,000 m² and a depth of expected fill would be between 1.5 and 2 m for an import volume of 63,000 m³.

The Drummond Street West connection option would be approximately 45,000 m³ of fill for an import cost of approximately \$1,500,000.

The development of the roadway and lot will be required under all circumstances.

5.0 SERVICING FEASIBILITY

SANITARY SERVICING

The referenced reports both indicate that a sanitary pumping station will be required to service the area north of Highway 7. The sewage treatment plant is in the southeast corner of the Town, approximately 4.7 km from the location of the proposed Works Garage. Due to the depth of existing services both on Drummond Street West and Wilson Street, drainage via gravity in sewers is not possible for the Works Garage site.

The Dillon report concluded that a peak hourly flow of 54.6 L/s would be required for full build out of residential and commercial properties North of 7. The need for a sanitary pumping station on the northern part of the 85 acres would need to be designed and sized to accommodate all future growth in the area. Constructing this pump station just for the works garage would not be a feasible cost to be associated with the site.

Costs associated with constructing sanitary force mains and sanitary pumping station are not available without design considerations. Sanitary force main cost is approximately \$300 per metre installed. With the need for a pumping station, there would still be a requirement for sanitary main piping as well. Cost for installed 200mm dia. water main is approximately \$400 per metre installed.

WATER SERVICING

The area of development is currently not serviced and a new watermain would be required to be installed for the entire length of developed roadway at a minimum. This would be approximately 700m from the Wilson Street/ Hwy 7 intersection, and 520m from the connection at Drummond

Street West. Both locations would be recommended to be looped together for fire flow, water refresh and future servicing of additional lots.

The Dillon Report indicates that the 85-acre lands would require a maximum of 2,829 m³/d for water supply and 166 L/s for fire flow.

The future development of the full area would require design of a water system including potential for storage for fire fighting requirements in the northern portion of the Town. The cost of 200 mm dia. watermain is approximately \$500 per metre installed.

ALTERNATIVE SERVICING FOR WORKS GARAGE

Should the Town want to investigate to option to service the PW garage site with septic and well, that could be a temporary method to service the single site without the requirement to install the full sanitary/water services from the connection points. The site has space for septic bed and well. The approximate cost of a septic system and appurtenances would be in the \$50,000-75,000 range. A well could be installed for approximately \$10,000.

Recommendation

The servicing of the site alone would be very costly to install full sewer systems on the constructed road, with a septic pumping station and force main in addition to the sewers. Watermains, hydrants and services would also be required from either connection point to the site. A water flushing station would be required at the end of each dead end. Fire flow protection may not be available due to lack of pressure in the area. There may be a requirement for a booster station to keep water flow pressure.

It is our opinion that the cost of servicing just one lot on the North of 7 property would not be feasible. If other lots were sold, or the Town has a plan to sever lots and develop with intent to sell to recoup servicing cost, then it might be financially viable.

6.0 ROAD CONSTRUCTION FEASIBILITY

The construction of the road network is a key cost contributor to the potential development of the property and the construction of the new Public Works garage. The Town has indicated that they would like an urban cross-section for the developed road which would include curb and gutters on both sides of the road, sidewalks on a minimum of one side of the road, lighting, landscaping (trees). The presumed utility services (Hydro, Gas, Communications) would be buried in the boulevards. Figure 3 below is an indication of a typical 20m wide urban cross-section.

ROAD CONSTRUCTION COST

The cost of road construction will be broken down into a per metre price for the cross section shown. The cost will not include servicing costs (sanitary, water, storm, manholes/catchbasins, hydrants) nor utility costs (Hydro, gas, communications). The servicing costs were discussed in the previous section of report.

Road Construction Costs:

- Imported Fill to grade the road bed and shoulders
- Granular B Type II
- Granular A
- HL8 Base Course Asphalt
- HL4 Top Course Asphalt
- Concrete Curb and Gutter
- Concrete Sidewalk
- Street Lighting
- Landscaping of boulevard (topsoil, sod, trees)

Using local construction costs for subdivisions, we estimate the roadway construction would cost approximately \$3000 per metre of road for the above items.

The green route is 520 m so an estimated cost of road works to Drummond would be \$1.56 million. The red route is 700 m and includes a roundabout construction and that would be in the range of \$2.3-2.5 million.

The service costs of the road network would be dependent on the number of lots requiring servicing but an estimate is approximately \$4000 per metre of roadway for Sanitary/Storm/Water/Structures and utility ducts. This does not include the pump station.

The cost of the green route servicing would be \$2.1 million and the red route cost would be \$2.80 million.

Combined the Town's servicing and road construction costs could be:

Green Route – Drummond Street West to Public Works site
 $\$1.56 \text{ million (road)} + \$2.1 \text{ million (servicing)} = \$3.56 \text{ million}$

Red Route – Wilson/Highway 7 through roundabout to Public Works site
 $\$2.5 \text{ million (road)} + \$2.8 \text{ million (servicing)} = \$5.3 \text{ million}$

Recommendation

The required road construction network to construct at the proposed location would present costs in excess of \$3.5 million for the cheapest option. Other factors which would add to the cost would be possible traffic lights, studies for traffic flow, engineering design and sanitary pump station.

The Town would be able to recoup costs on serviced lands owned by selling the lots. Residential construction to the north of the proposed Public Works would depend on ownership and cost sharing.

7.0 CONCLUSION

A new Public Works Garage and offices would be a possibility on the location chosen by the Town of Perth but would come at a significant cost. The length of the roadway and servicing from the location to connection points would mean either 700m or 520m of new full construction. With costs in excess of potentially \$5 million for just the roads, it would indicate there might be a more financially viable location on the lands north of Highway 7 or elsewhere in the Town.

If there was other development planned in the future, the cost of servicing each lot would go down and costs split amongst landowners and developers.

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February 16 2024