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September 19, 2024

BY EMAIL ONLY

Mr. David Smith, Manager, Planning and Development Municipality of West Grey 402813 Grey Road 4 Durham ON N0G 1R0

Subject: Proposed Residential Development

192 Park Street East Municipality of West Grey

O/Ref.: 06015

Dear Mr. Smith:

Cobide Engineering Inc. has been retained by Candue Homes 2020 to complete the site servicing and grading design in support of the new six-unit townhouse residential development located at 192 Park Street East (herein referred to as the site), in the former Town of Durham, now the Municipality of West Grey.

The following letter outlines the servicing aspects of the proposed development with respect to water and sanitary sewer servicing and addresses the approach to stormwater management. This letter is being submitted to the Municipality of West Grey in support of the proposed development.

1.0 INTRODUCTION

1.1 Location and Site Description

The site is located at 192 Park Street East in former Town of Durham. The property is bounded by the following:

- Park Street East and high-density residential to the south;
- Commercial to the west;
- Residential properties to the north; and
- Albert Street South with single family residential and commercial properties to the east.

The site is approximately 849.8 square meters in area and previously had a house situated to the east side of the property (see Figure 1). A copy of the proposed re-development Concept Plan (Drawing 06015-CP1) has been attached to this letter as Appendix A.

The property is currently vacant, and the existing building has been demolished. Prior to the demolition there was a single-family dwelling with a couple of sheds and a garage. It appeared that the property had split drainage and sloped toward Park Street East and Albert Street South. The previous site consisted of gravel and grass cover as well as mature trees within the property boundary and is now an empty lot.



Figure 1 - Aerial Photo of the Site, Source: Grey County Maps 2024

2.0 PROPOSED DEVELOPMENT

The proposed development will consist of six (6) rowhouse units which will be freehold when completed. The parking for each unit will have a garage and driveway off Park Street East to the south of the proposed units. A summary of how the development is proposed to be serviced with municipal water and sanitary infrastructure is provided below.

See Appendix A for the proposed Concept Plan (Drawing 06015-CP1).

3.0 SITE SERVICING

3.1 Water Servicing

Each new unit is proposed to be serviced with a19 mm diameter municipex water service from the existing watermain on Park Street East.

The theoretical water demand for the proposed development is summarized below. The water demand was calculated using the Ministry of the Environment and Climate Change's Design "Guidelines for Water Systems".

Table 3.1 - Domestic Water Demand

Type of Development	Water Demand (L/c/d)	Pop. Density	No. of Units	Pop.	Average Demand (L/s)	Max. Day Peak Factor	Max. Day Demand (L/s)	Peak Hour Factor	Peak Hour Demand (L/s)
Residential	450	2 ppl /unit	6 units	12	0.063	2.75	0.17	4.13	0.26

3.2 Sanitary Servicing

Each proposed unit in the development will be serviced with a new 125 mm diameter sanitary service. The new service will be connected to the existing 200 mm diameter sanitary sewer on Park Street East.

The total design flow including extraneous flows has been calculated based on the flow rates specified in Table 8.2.1.3.B of the Ontario Building Code.

Table 3.2 – Sanitary Flows

Type of Development	Population Flow (L/c/d)		Avg. Flow (L/s)	Peaking Factor	Peak Flow (L/s) (1)	Extran. Flow (L/s) (2)	Total Flow (L/s) (1+2)	
Residential	12	450	0.063	4.13	0.26	0.024	0.28	

⁻ Extraneous Flow: $Q_{inf} = 0.28$ L/effective gross area x 0.085 ha = 0.024 L/s

3.3 Stormwater Management and Site Drainage

As stated above, the subject property is a vacant lot since the old house was demolished. The proposed development will be graded to have the front portion of the development drain towards Park Street. A rear yard swale across all of the proposed lots will run easterly and outlet overland onto Albert Street. As this is in an infill lot with proposed freehold lots there is very little opportunity to provide quantity control. Where possible, the eavestroughs will be directed to grassed area to provide quality control. Runoff from the site will flow northerly along Albert Street and outlet to the existing ditch.

4.0 TRAFFIC AND PARKING

The proposed development will contain parking to the south of each unit and have parking able within the garage and in the driveway. Park Street East and Albert Street South are low volume roads and will not be negatively impacted by the proposed development. Sight lines are expected to be improved as the setbacks for the proposed development are more inline with zoning than from the previous dwelling, there has also been the removal of vegetation and buildings close to the municipal right-of-way allowing for increased visibility.

There is no plan to install sidewalks at this development as there are no sidewalks on any streets within this area of Durham and we do not feel that 5 additional units compared to the previous use warrants the need for a new sidewalk. Even if sidewalks were installed in this location, they would not tie into anything and therefore would serve no purpose. Winter Maintenance would also be a concern for the Municipality as they would have to make a special trip to this location to clear the sidewalk since as mentioned above there are no other sidewalks on Park Street East or Albert Street.

5.0 EROSION AND SEDIMENTATION CONTROL

Erosion and sedimentation control measures will be implemented during construction. Silt fence will be required to be installed around the perimeter of the site.

All proposed erosion and sediment control measures are to be installed to the satisfaction of the engineer and the Municipality of West Grey prior to undertaking any site alterations (i.e., filling, grading, etc.) and remain present throughout the duration of construction.

The General Contractor will conduct daily inspections during construction to ensure that the erosion and sedimentation control measures are working properly.

Erosion and sedimentation control measures to be implemented during construction will consist of the installation of light duty silt fencing around the perimeter of the property.

6.0 SUMMARY AND CONCLUSIONS

This letter has been prepared in support for the proposed six-unit rowhouse development at 192 Park Street East in the former Town of Durham.

Based on the finds of this letter, the following conclusions are made:

- 1. The proposed development will be serviced by connecting to the existing watermain and sanitary main infrastructure on Park Street East.
- 2. Stormwater will be maintained on the proposed site with proper grading techniques to drain toward Park Street East and Albert Street South.
- 3. Erosion and sediment control measures will be implemented throughout the duration of construction.

The above assessment demonstrates that the proposed development can be adequately serviced with water, sanitary and drainage that will not impact surrounding areas. It is therefore recommended that the proposed residential development be approved by the Municipality of West Grey.

If you have any questions regarding the above, please contact the undersigned at 519-506-5959, extension 101.

Yours truly,

Travis Burnside, P.Eng.

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Director

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