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CONSULTANT SELECTION FOR ENGINEERING SERVICES DETAILED DESIGN OF MAJOR MACKENZIE DRIVE ISLINGTON AVENUE TO WESTON ROAD, CITY OF VAUGHAN (REQUEST FOR PROPOSAL P-11-82)

The Transportation Services Committee recommends the adoption of the recommendations contained in the following report dated August 23, 2011, from the Commissioner of Transportation Services.

1. RECOMMENDATIONS

It is recommended that:

1. Regional Council authorize staff to retain the consulting firm of HDR Corporation, to undertake the detailed design for road improvements on Major Mackenzie Drive (Y.R. 25), from Islington Avenue (Y.R. 17) to Weston Road (Y.R. 56), in the City of Vaughan, at a cost not to exceed \$1,884,655.00, excluding HST.
2. The Commissioner of Transportation Services be authorized to execute the agreement, subject to terms and conditions acceptable to the Commissioner of Transportation Services and the Regional Solicitor's approval as to form and content.

2. PURPOSE

This report recommends awarding the consulting assignment of the detailed design for road improvements on Major Mackenzie Drive from Islington Avenue to Weston Road in the City of Vaughan.

This report is before the Transportation Services Committee because the Region's Purchasing By-law requires Regional Council approval for awards over \$500,000.

3. BACKGROUND

The Major Mackenzie Drive improvements were planned under the Western Vaughan Individual Environmental Assessment

The Western Vaughan Individual Environmental Assessment (IEA) was initiated in 2007 and builds on previous studies and the key initiatives outlined in the Transportation Master Plan (TMP) Update. Using the TMP as an overall guideline, the IEA focuses on the Western Vaughan area and goes into further details with respect to alternative transportation networks, detailed environmental inventory and updated development

applications to identify a sustainable transportation network that will encourage multi-modal travel.

A comprehensive public consultation process was undertaken for the Western Vaughan Individual Environmental Assessment, which included obtaining input from residents and working closely with two advisory committees

There were a total of 11 public meetings held for the study. Given the large study area, a comprehensive notification strategy was deployed for each public meeting that included handing out approximately 40,000 flyers to all residents, multiple advertisements in the Vaughan Citizen and Toronto Star, website notification and posters at local community centres and libraries. On average, the attendance at the meetings was approximately 35 people.

Public comments focused on the need for transportation infrastructure while minimizing impacts to adjacent residents

In general, the public recognized the need to provide transportation infrastructure and continue to identify transportation as one of the key issues in this area. It was noted that ongoing growth has had an impact on travel times and that there is a need to respond to these issues.

There were a number of comments about the Region's proposed six-lane transit/HOV design and many residents identified issues related to the impacts of road widening, reduced boulevards and increased noise issues. Staff responded to these matters by stating the importance of transportation infrastructure to support planned growth and Regional Council's approved design for transit/HOV lanes. Staff outlined the design features that will be implemented to address some of the impacts. These include noise walls where they are warranted in accordance with Region's noise policy, dedicated bike lanes, sidewalks, street tree planting and centre median design to improve urban design and increase safety.

The overall preferred solution of the Western Vaughan Individual Environmental Assessment to achieve long-term transportation objectives is to implement a six-lane road cross-section with Transit/HOV lanes on 40 km of arterial roads within the study area

An assessment of existing operational conditions and current limitations was undertaken. It was determined existing infrastructure was already near capacity in several corridors. Based on the current conditions and noting future growth, it was determined approximately 40 km of roads/transit improvements are required to support long-term growth in the study area. Transit/HOV lanes consistent with Region's six-lane design standard are recommended on Major Mackenzie Drive between Highway 50 and

Highway 400. A context plan and location plan are appended to this report (see *Attachments 1 and 2*).

Major Mackenzie Drive through the Kortright Conservation area, is designed to minimize impacts on conservation lands and improve connectivity across the roadway for pedestrians and wildlife

Major Mackenzie Drive requires improvements to provide for a six-lane road cross-section with transit/HOV lanes to accommodate long-term future travel across the Kortright Conservation area. In order to minimize impacts through this section, the typical landscaped centre median was eliminated in the design. Steeper slopes with natural vegetated walls are proposed to reduce the amount of valley land impacted. At the river and stream crossings, wider span bridges will replace the small box culverts to improve conditions for the streams and provide enhanced opportunities for pedestrian connections under the roadway. Three additional wildlife crossings are also proposed to improve connectivity under Major Mackenzie Drive.

The Environmental Study Report was submitted to the Ministry of the Environment for approval on July 15, 2011

The Western Vaughan IEA was submitted to the Ministry of Environment on July 15, 2011 and is currently in the seven-week period of receiving formal public comments. To date, there have been few comments and staff have provided responses to the Ministry accordingly. Overall, the approval process could take between six months and one year depending on the comments from the public and any other stakeholders.

Regional staff plan to proceed with the detailed design of the Major Mackenzie Drive improvements between Islington Avenue and Weston Road in order to meet construction program commitments and municipal expectations

The immediate need for the Major Mackenzie Drive improvements are related to development growth on the north and south side of Major Mackenzie Drive west of Weston Road. The increased growth will also increase traffic volumes between Pine Valley Drive and Islington Avenue. This section has a rolling, rural terrain as it traverses through Toronto and Region Conservation Authority's Kortright Centre and will require improvements in order to maintain safe operating conditions as traffic volumes increase. Furthermore, the City of Vaughan has initiated a streetscape master plan for Islington Avenue, north of Major Mackenzie Drive with substantial gateway and entry features at the Major Mackenzie Drive and Islington Avenue intersection. These factors, and the importance of Major Mackenzie Drive as one of the few major arterial roads that cross the entire Region is driving the need for improvements on Major Mackenzie Drive.

The detailed design assignment has identified the need to build four lanes to meet the short-term growth demands while protecting for the long-term vision of the Region's six-lane transit/HOV design

The Region's current 10-Year Roads Construction Program shows the subject section of Major Mackenzie Drive to be tendered in 2013.

Further, Regional policy states that when roads are widened to six lanes, the outside lanes shall be reserved for transit/HOV use. Based on projected volumes, a six-lane transit/HOV facility is not required until 2025, or beyond, when population growth in the area will require increased transit service. As a result, staff are proposing a staged implementation with the initial construction of a four lane facility to meet short/medium-term demands while ensuring the design does not preclude the ability to provide for six lanes in the future. If a 6-lane facility were constructed initially, road users will question the need and potentially pressure the Region to convert the outside lanes to General Purpose traffic use.

Detailed design and pre-construction activities can proceed in parallel with the Ministry of the Environment's review and approval of the Environmental Study Report; however, construction must wait until final approval is issued by the Minister of the Environment

The *Environmental Assessment Act* does not preclude the proponent to proceed with detailed design prior to approval of the Environmental Assessment Report. The proponent must ensure that all commitments outlined in the approved EA are accommodated in the design and must be willing to assume any risks associated with potential design changes. As part of the pre-submission process, staff reviewed the preliminary design with key stakeholders including Toronto and Region Conservation Authority and Ministry of Environment staff. Their initial comments have been included in the final submission and therefore, it is not anticipated there will be any major comments with respect to the proposed design. Any construction related to the proposed undertaking cannot start until the IEA is approved.

At the completion of the Individual Environmental Assessment, a consulting assignment for engineering services was initiated to assist with the detailed design and contract preparation phase for Major Mackenzie Drive improvements from Islington Avenue to Weston Road

The consulting engineering assignment identified the Region's requirement for a detailed design that includes the following key elements:

- The widening of the roadway for an initial four-lane facility with provisions for an ultimate six-lane transit/HOV design.
- Two bridge structures and three wildlife crossings within the TRCA lands at the East Humber River and Purpleville Creek.

- Integration of the City of Vaughan's Islington Avenue Streetscape Plan at the intersection of Major Mackenzie Drive and Islington Avenue.
- An urban four-lane design with on-street bike lanes and traffic signals at key intersections to support existing and future development between Weston Road and Pine Valley Drive.
- Construction is scheduled to start in 2014, in accordance with the draft 2012 10-year Roads Construction Program.

4. ANALYSIS AND OPTIONS

The first phase of the procurement process was to issue a Request for Pre-Qualifications

The Supplies and Services Branch issued a Request for Pre-Qualifications (RFPQ) for Engineering Services No. P-11-48. The request was issued to solicit interest from as broad a market for engineering services as possible. In response to RFPQ P-11-48, fifteen engineering consulting firms expressed interest in this project and submitted their qualifications and proposed team members. These fifteen submissions were evaluated and scored based on our standard criteria, which include:

- Project Manager's experience
- Team completeness and experience with York Region projects
- Industry experience of key project lead members
- York Region needs and team availability
- References
- Added value

The second phase of the procurement process was to issue Request for Proposals to the three highest scoring firms

The Supplies and Services Branch issued Request for Proposal (RFP) No. P-11-82 to the three firms who achieved the highest score under the RFPQ process. The three firms invited to submit a proposal in response to RFP P-11-82 were:

- HDR Corporation
- IBI Group
- Robinson Consultants Inc.

Following our standard practice, only the top three to five scoring firms are invited to submit a proposal because this results in significantly higher quality and completeness of the submissions. Through our ongoing consultation with the Consulting Engineers of Ontario, it has been communicated that top performing firms are reluctant to actively participate in an RFP process when five or more firms are invited. The top firms are less likely to invest substantial effort in the preparation of a proposal because of the increased competition and perceived lower likelihood of success.

The third phase of the procurement process was to evaluate the proposals using a two envelope system

The two envelope system requires the technical proposal and the financial proposal be submitted in two separate envelopes. The proposals were evaluated based on a weighting of 80% for the technical component and 20% for the financial component.

The allocation of 80% for the technical component and 20% for the financial component has been our practice for several years. The reason for this split is to recognize the relative importance to the Region of retaining the best available professional services yet demonstrating fiscal prudence. This attention to fiscal prudence is further demonstrated in our RFP process by the “dollar cost per technical point” methodology, which applies when the total scores of two or more firms are within five points of each other.

The technical proposals were opened first and evaluated using the following criteria:

- Qualifications and experience of the project team, including project manager, technical support staff and sub-consultants.
- Project deliverables, including project plan, schedule and budget control, staff allocation and quality assurance.
- Project implementation, including project understanding, approach and methodology, key project issues, value and innovation of services.

A technical score was then calculated for each proponent.

The financial proposals were then opened and evaluated. A financial score was calculated for each proponent.

The technical and financial scores were combined to achieve a total score

The proponents, their technical scores and proposed upset limit fees are presented in Table 1.

Table 1
Evaluation Summary

Firm	Technical Score (out of 80)	Upset Fee (Excluding taxes)	Financial Score (out of 20)	Total Score (out of 100)	Cost per Technical Point
HDR Corp.	53.08	\$1,884,655	19.84	72.92	\$35,505.93
IBI Group	51.75	1,869,890	20.00	71.75	36,133.14
Robinson Consultants Inc.	55.18	\$3,267,483	11.45	66.62	-

The proposal from HDR Corporation received the highest total score in response to RFP P-11-82

Based on the evaluation of the technical and financial proposal, HDR Corporation achieved the highest total score in response to RFP P-11-82. However, since the Total Scores of HDR Corporation and IBI Group are within five points of each other, the “dollar cost per technical point” was computed. The proposal from HDR Corporation also received the lowest dollar cost per technical point. Accordingly, their proposal represents the best overall value to the Region.

5. FINANCIAL IMPLICATIONS

The Total Upset Limit fee of \$1,884,655 has been approved as part of the 2011 10-Year Roads Construction Program

The upset limit fee for the detailed design assignment is \$1,884,655 excluding HST. The 2011 10-Year Roads Construction Program has sufficient funds to cover anticipated expenditures for this project in 2011 and 2012.

This work will be funded at 90% from Development Charges and 10% from Tax Levy.

6. LOCAL MUNICIPAL IMPACT

During the detailed design and contract preparation phase, adjacent residents, business owners, City of Vaughan staff and other stakeholders will be consulted to review property requirements, driveway and landscaping modification and other issues

Project staff will consult throughout the detailed design phase with all stakeholders on various issues, including:

- Property requirements
- City of Vaughan requirements
- Driveways and local road connections
- Mitigating impacts on Toronto and Region and Conservation Authority lands
- Addressing property and archaeological issues on Ontario Heritage Trust lands

Throughout the course of this assignment, Regional staff will work with staff from the City of Vaughan, Toronto and Region Conservation Authority and Ontario Heritage Trust to accommodate their requirements.

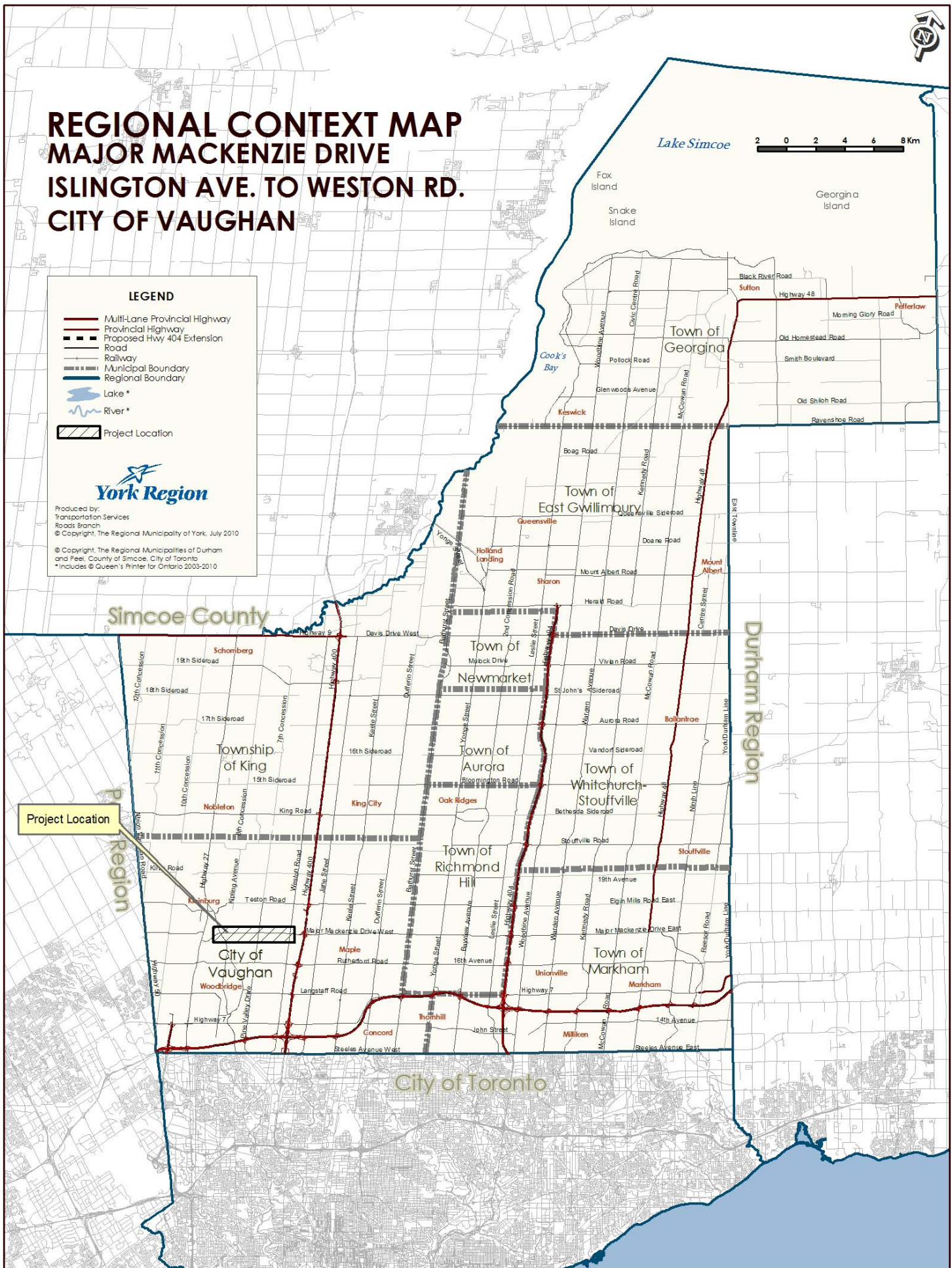
7. CONCLUSION

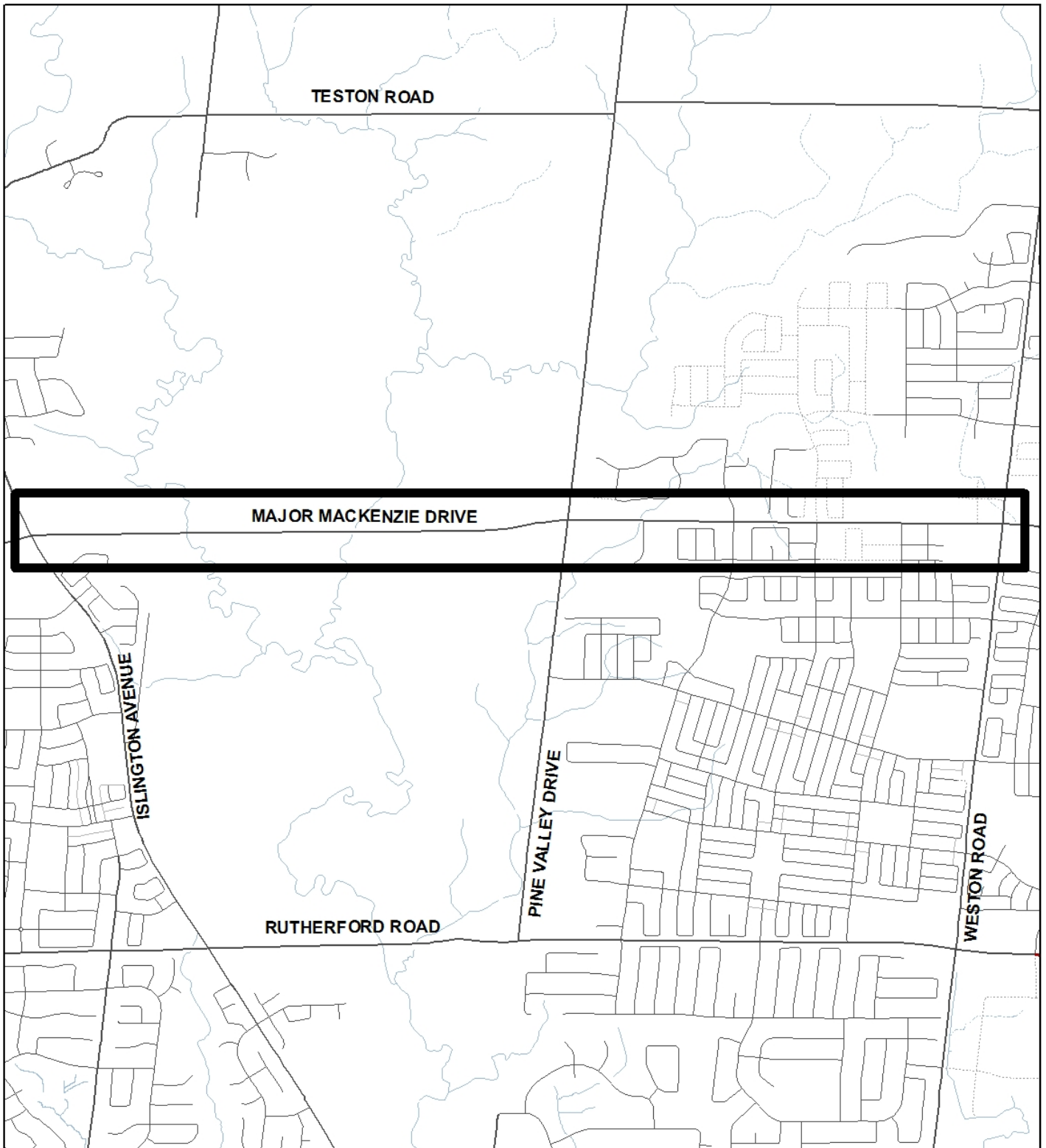
It is recommended the consulting assignment for the detailed design for Major Mackenzie Drive improvements from Islington Avenue to Weston Road be awarded to HDR Corporation as the successful proponent under Request for Proposal P-11-82.

For more information on this report, please contact Salim Alibhai at extension 5229.

The Senior Management Group has reviewed this report.

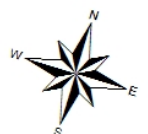
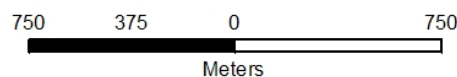
(The two attachments referred to in this clause are attached to this report.)





LOCATION PLAN
8566 DETAILED DESIGN
MAJOR MACKENZIE DRIVE from ISLINGTON AVENUE to WESTON ROAD
City of Vaughan

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