

1. TERMS OF REFERENCE

The terms of reference are for the engineering services and all other sub-consultant services for the preparation of the Class Environmental Assessment (EA) for the proposed Highway 400 / America Avenue overpass.

2. INTRODUCTION

Block 33 is bounded by Major Mackenzie Drive to the south, Weston Road to the west, Teston Road to the north, and Jane Street to the east. Highway 400 runs north-south through the middle of Block 33, dividing it into two halves, referred to as Block 33 East and Block 33 West. Refer to Attachment 1. Block 33 was identified in Official Plan Amendment (OPA) 400 and OPA 600 as part of Urban Village 1, originally slated for residential development in 1995. Block 33 East is close to completing development and Phase 2 of Block 33 West is currently under development.

As a result of the background transportation studies completed in support of OPA 400 / 600, the overpass was identified as a "new link" on Schedule "J" of the official plan amendment document. The overpass is considered an important component of the overall primary road network for the area. The need for it was recognized to meet ultimate traffic volumes within Block 33 on both sides of Highway 400 and to alleviate the traffic concerns associated with the adjacent Regional arterial roads, Major Mackenzie Drive and Teston Road. The proposed alignment of the overpass connects America Avenue on the east side to Canada Drive on the west side of Highway 400. This link would complete the construction of the City's east-west collector road system within Block 33. Before work can commence on the overpass construction, an Environmental Assessment and preliminary design is required.

The City requires the services of a consulting engineering firm to prepare and conduct a Class Environmental Assessment Study for the proposed Highway 400 / America Avenue overpass. Given the amount of residential development which has proceeded in advance of the overpass construction, it should be noted that the Public consultation process will be extremely important in ensuring the successful completion of the Class EA process and subsequent construction of this integral transportation component of the City's overall road network.

An overpass of Highway 400 was originally identified in the overall approved transportation network for OPA 400 / 600 within Block 32, immediately south of Block 33 (between Major Mackenzie Drive and Rutherford Road, refer to Attachment 2). Due to significant public interests by residents both in Block 32 and 33 East, in 2002 Council directed Staff to bring forward a report allowing for the amendment of OPA 600 such that the Highway 400 overpass within Block 32 was deleted. It is expected that there will be a high level of interest from local residents throughout the EA process for the Block 33 overpass. As a result, Public awareness, education and consultation will be key in ensuring the interests and concerns of the local residents are adequately addressed through the EA process such that this project may successfully proceed to construction.

3. SCOPE OF WORK

The following sections are intended to give an overview of the project and are not intended to be an exhaustive listing of the work activities. The Consultant will be required to provide all of the necessary personnel and resources to complete the project except where materials or information is to be supplied by the City or other agency as specifically indicated below:

4. CONSULTANT'S SERVICES

The Consultant shall, upon instruction from the City, provide the following services in the execution of the project.

- 4.1 Conduct a Class Environmental Assessment (EA) for the proposed Highway 400 / America Avenue overpass in accordance with the most recently approved version of the Municipal Class Environmental Assessment, Municipal Engineers Association (MEA), document.
- 4.2 Identify any land or easement (permanent and working) necessary to implement the preferred alternative for the proposed overpass.
- 4.3 Identify any environmental impacts on private or public lands and recommend mitigation measures.
- 4.4 As a minimum, provided base mapping for this study shall incorporate 1:1000 scale topography, orthophotography and property fabrics, identify existing and proposed land-uses and environmental features.
- 4.5 Prepare an Environmental Study Report (ESR) that documents the process followed for the planning and design of the project. The ESR should provide an analysis of the problem, an evaluation of alternative solutions for the problem, and the selection of a preferred alternative.
- 4.6 Prepare a preliminary design and cost estimate of the preferred alternative, and summarize the remaining issues or tasks required to complete detailed design and construction. A schedule for the design and construction of the preferred alternative should be provided.
- 4.7 Consider the following previous reports and studies prepared in support of the anticipated proposed Highway 400 / America Avenue overpass:
 - a) OPA 400 Review Transportation Study Final Report by TSH, dated September 1, 2000
 - b) Official Plan Amendment 400 and Official Plan Amendment 600
 - c) Block Plan transportation studies completed for Block 33 East and Block 33 West
- 4.8 Consider that the requirements for the overpass must be in accordance with all applicable design standards and criteria including but not limited to:
 - a) City of Vaughan
 - b) Region of York
 - c) Ministry of Transportation
 - d) Ministry of Environment
 - e) Toronto & Region Conservation Authority
- 4.9 Consult with and obtain approval from the following City Departments:
 - a) Development/Transportation Engineering
 - b) Engineering Services
 - c) Policy Planning/Urban Design
 - d) Public Works
- 4.10 Provide the necessary expertise for the preferred alternative to serve the best interests of the public, with due consideration for environmental concerns, capital cost and operating efficiency in accordance with current state of the art and acceptable engineering standards established by the City and other applicable regulatory agencies.

- 4.11 Liaise with internal and external stakeholders, affected agencies and other jurisdictions, facilitate and attend public meetings as necessary, during the process of completing the Class EA and preliminary design.
- 4.12 Participate in a reasonable number of meetings for informative, mediative, preventative or coordinative purposes with the City, utilities and/or other regulatory agencies, in connection with the services provided under the terms of reference between the City and the Consultant.
- 4.13 Create, maintain and update as required a project website throughout the duration of the study. All website technical specifications shall be in accordance with City corporate standards and coordinated directly with appropriate Information Technology department Staff.
- 4.14 The Consultant shall, barring unforeseen circumstances, complete the deliverables by **DECEMBER 1st 2008**.

5. PROPOSAL REQUIREMENTS

The Proposal shall be a maximum of ten pages in length excluding attachments. Consultants are invited to also provide copies of any recent reports relevant to the work. The Proposal should include, as a minimum, the following:

- A description of the understanding of the assignment by the Consultant;
- A description of the proposed approach and work plan to be undertaken by the Consultant to achieve the project objectives. The activities, deliverables and required input from others should be identified, where applicable, for each task;
- A project schedule (Gantt Chart) prepared using Microsoft Project of the proposed work plan from the date of the City awarding the work to the anticipated completion of the project.
- A project fees spreadsheet prepared using Microsoft Excel 2003 showing the estimated time in hours to be spent by each staff member on each task, the respective hourly rates, sub-total for each task, reimbursable expenses and disbursements and the total estimated fees excluding G.S.T. The tasks must be the same as those presented in the project schedule.
- Key personnel to be assigned to the project (ie. project manager, project engineer) including their respective Curriculum Vitae; hourly rates and
- Names of any sub-consultants or services to be retained to complete the assignment.

In addition, an appendix may be included with the proposal to provide background information on recently completed relevant projects undertaken by the Consultant and other applicable background information.

6. INFORMATION TO BE PROVIDED BY THE CITY

In preparing the Proposal, the consultant should consider that the City of Vaughan will provide the successful Consultant with the following available information:

- OPA 400 Review Transportation Study Final Report by TSH, dated September 1, 2000
- City of Vaughan Official Plan Amendments 400/600
- All related Block Plan Transportation Studies
- Teranet property fabric mapping and 2005 orthophotography for the study area in digital format
- Existing contour mapping of the study area with contours at 1 meter intervals in digital format
- All required as-constructed engineering drawings and associated design reports
- Existing and proposed land-use mapping

7. EXECUTION OF AGREEMENT

The successful Consulting Engineering Firm will be required to execute an agreement satisfactory to the City (MEA/CEO - Agreement for Professional Consulting Services format) within ten working days of notice of the award. The Engineering Agreement will provide that the Consultant must not undertake any work which he believes is beyond the terms of reference for the project and his written proposal without the authorization of the City.

8. PROJECT BUDGET AND PAYMENT

The Consultant is required to include in his proposal a Gantt chart prepared using Microsoft Project showing the start and finish of various items of work included in this project. In addition, the Consultant is to submit a schedule of costs, including billing rates for his staff, all in sufficient detail to provide an adequate basis for the preparation and checking of his progress billings and evaluating the proposal. The fee shall be calculated on a time basis - all expenses and disbursements will be paid at cost.

The cost estimate in the proposal shall include the total cost of the work associated with each phase of the project and shall show the labour and out-of pocket disbursements separately. The Consultant will be responsible for payments to all sub-consultants, geotechnical firms, testing firms, legal surveyors, etc., which he requires in order to complete the assignment. The costs in this regard must be shown as disbursements. All sub-consultants, testing and geotechnical firms, legal surveyors, etc., must be approved by the City prior to their being engaged by the Consultant.

An upset limit shall be provided by the Consultant for the completion of the Highway 400/America Avenue Municipal Class Environmental Study. The upset limit shall not be exceeded without prior authorization in writing from the Commissioner of Engineering and Public Works.

Monthly payments will be made on invoice amounts based on the actual hours of work by each personnel on a task plus expenses and disbursements and updated monthly on the project fees spreadsheet. On a monthly basis, submit together with the invoice for the preceding month, a report on the project progress, an updated project fees spreadsheet and an updated tracking Gantt Chart, addressing the following:

- Activities for the month and project status in terms of meeting the scheduled milestones of the work plan.
- Anticipated delays to the project schedule, the reasons and any measures necessary to remedy the situation.

The Proposal must confirm that the Consultant will not undertake any work that they believe is beyond the terms of reference for the project and their written Proposal, without written authorization from the City. The Proposal shall indicate that Consultant staff identified in the Proposal and their respective role shall not be altered unless written authorization is obtained from the City.

9. INSURANCE

The successful Consultant shall maintain and pay for **Comprehensive General Liability Insurance** with an insurer acceptable to the City. The coverage shall include premises and all operations liability to be performed by the Consultant his/her employees, and/or agents. This insurance coverage shall be subject to limits of not less than Five Million Dollars (\$5,000,000.00) inclusive per occurrence for bodily injury, death and damage to property including loss of use thereof for any one occurrence.

The policy shall include The Corporation of the City of Vaughan as an additional insured in respect of all operations performed by or on behalf of the Consultant. The Consultant will be entirely responsible for the cost of any deductible that is maintained in any insurance document.

Where applicable the successful Consultant shall carry **Standard Automobile and Non-Owned Automobile Liability Insurance** and shall protect themselves against all liability arising out of the use of owned or leased vehicles, used by the Consultant, its employees or agents. The limits of the liability for both owned and non-owned vehicles shall not be less than Two Million Dollars (\$2,000,000.00) per occurrence.

In addition, the successful Consultant shall carry **Professional Liability Insurance** in the amount of not less than Two Million Dollars (\$2,000,000.00) per occurrence.

The Insurance Policy shall not be altered, canceled or allowed to expire or lapse, without thirty (30) days prior written notice to the City. Consultants shall clearly identify in their Proposal the insurance requirements as outlined above and shall include the cost of such insurance therein.

10. CONFLICT OF INTEREST

Each Consultant must declare in their Proposal, any situation that may be a conflict of interest or that may appear as potentially a conflict of interest in submitting a Proposal for this undertaking. If such a conflict of interest does exist, the City may, at its discretion, refuse to consider the Proposal.

11. DELIVERABLES

The following deliverables will be required:

- Five (5) copies of the final Environmental Study Report in addition to the copies that are distributed through the public and agency review process;
- One (1) unbound copy of the final Environmental Study Report including technical appendices and plans suitable for photocopying; and
- One (1) electronic copy of the final Environmental Study Report including all figures, exhibits, maps and plans. All electronic files are to be compatible with the following software formats:
 - Microsoft Office 2003
 - AutoCAD 2000i
 - Adobe PDF

12. CONSULTANT SELECTION PROCESS

The principal evaluation criteria and weighting system used in the Consultant selection process are as follows:

- **Understanding of the assignment, familiarity with local conditions and project approach (30%);**
 - The Consultant is expected to analyze the information provided in the Terms of Reference, including Reports, Drawings and other data to show a clear understanding of the assignment and project requirements.
 - The Consultant should be familiar with the location and nature of the work involved in the assignment, local conditions, feasible alternative solutions, an approximate time frame, and anticipated conflicts and constraints. The use of innovative designs and construction

methodologies to reduce capital and lifecycle costs while mitigating various issues related to the project will be highly commended.

- The Consultant is expected to identify the proposed methodology and approach towards the successful completion of the ESR, with particular attention to the anticipated high level of public interests from existing residents within Block 33 and Block 32, implementation of the design and construction of the project, constraints and any other anticipated or unforeseen conflict situations.
- **Work plan and project management (30%);**
 - The work plan should include a list of agencies and jurisdictions to be consulted, permit requirements, geotechnical investigation and environmental assessment requirements, preliminary details of proposed drawings and specifications and any intended alternatives to current City Standards.
 - The Consultant shall give details on the resource allocation and project management control system to be used throughout the project. The proposal shall be evaluated on the basis of whether the proposed resource allocation is considered adequate to complete the project as intended and whether the project management control system is considered effective in tracing and controlling all aspects of the project both in terms of progress and cost.
 - The Consultant shall provide details related to the anticipated public consultation process required to successfully complete the Class EA study such that the proposed infrastructure works may proceed to detailed design and construction.
- **Qualification of Firm and experience of staff assigned to the project (20%);**
 - The qualification of the firm shall be evaluated based on the firm's experience and performance on projects of a similar size and scope carried out by the firm.
 - The qualification of the assigned team leader shall be evaluated based on demonstrated experience in coordinating multidisciplinary teams involved in successfully completing Municipal Class Environmental Assessment studies of similar type projects where there is a high level of local interests or concerns by residents.
 - The qualification of the assigned staff shall be evaluated based on the respective roles and responsibilities assigned to each team member and the demonstrated experience in the respective roles.
 - The qualification of any proposed sub-consultant shall be evaluated based on similar criteria.
- **Proposed fee (20%);**
 - The proposed fee shall be evaluated based on all the information provided on the project fees spreadsheet including the estimated time in hours to be spent by each staff member on each task, the respective hourly rates, sub-consulting costs, reimbursable expenses and disbursements.

13. SUBMISSION OF THE PROPOSAL

Should technical questions arise please contact Michael Frieri, Development Supervisor, Engineering Planning & Studies, at 905-832-8525 extension 8729 or by e-mail: michael.frieri@vauhgan.ca.