COPY

CONTRACT NO. 2004-0808
AGENDA: DAB

MICHIGAN DEPARTMENT OF TRANSPORTATION

AND

THE CORRADINO GROUP OF MICHIGAN, INC.

THIS CONTRACT is made and entered into this date of _____ by and between the Michigan Department of Transportation, hereinafter referred to as the "DEPARTMENT," and The Corradino Group of Michigan, Inc., of 200 South Fifth Street, #300N, Louisville, KY 40202, hereinafter referred to as the "CONSULTANT."

WITNESSETH:

WHEREAS, the DEPARTMENT desires to engage the CONSULTANT to perform professional planning, environmental, and engineering services; and

WHEREAS, the DEPARTMENT and the CONSULTANT agree to follow a dispute resolution process in the event that problems occur with the SERVICES performed by the CONSULTANT or in the event that other problems arise related to this Contract or the SERVICES provided hereunder; and

WHEREAS, the services may be programmed with the use of Federal funds administered by the United States Department of Transportation, Federal Highway Administration (FHWA); and

NOW, THEREFORE, the parties agree that:

THE CONSULTANT WILL:

1. Perform the work set forth in Exhibit A, dated December 10, 2004, pages 1 through 238, attached hereto and made a part hereof, said work performed by the CONSULTANT to be hereinafter referred to as the "SERVICES."

2. Perform all SERVICES in conformity with the DEPARTMENT's applicable standards.

3. During the performance of the SERVICES herein defined, be responsible for any loss of or damage to original documents belonging to the DEPARTMENT while they are in the CONSULTANT's possession. Restoration of lost or damaged original documents will be at the CONSULTANT's expense.

4. The CONSULTANT specifically agrees that it will not perform SERVICES that are not included within the scope of services in Exhibit A, attached to this Contract, as may be amended. By its signature on this Contract, the CONSULTANT denotes its understanding that DEPARTMENT employees, including any MDOT project manager, do not have the authority to verbally assign work to the CONSULTANT. In the event that any DEPARTMENT employee attempts to assign SERVICES under this Contract that are not included within the scope of services in Exhibit A, attached to this Contract, as may be amended, the CONSULTANT will refuse to do any such work and will notify the Engineer of Design at the Issuing Office.

5. The CONSULTANT will maintain the original copies of all documents, calculations, reviews, and reports that are generated during the performance of the SERVICES. These documents will be referred to as "DOCUMENTS." Such DOCUMENTS will be maintained in a safe and secure place and available for review by MDOT or its representative.

   The CONSULTANT will maintain these DOCUMENTS for at least three (3) years from the date of completion of the construction of the project resulting from the SERVICES under this Contract. In the event that such construction is unduly delayed, the CONSULTANT may request permission for exemption from this provision. The CONSULTANT may not discard such DOCUMENTS prior to the above defined date without prior written approval from the DEPARTMENT.

6. Make such trips to confer with representatives of the DEPARTMENT and the FHWA as may be necessary in the carrying out of the SERVICES set forth in this Contract.

7. Upon completion of SERVICES, deliver to the DEPARTMENT the work products defined in Exhibit A.

8. Affix its professional endorsement upon all designs, specifications, estimates, and engineering data furnished to the DEPARTMENT and comply with all requirements of 1980 PA 299 Section 2008, M.C.L. 339.2008.

9. With regard to audits and record-keeping,

   a. The CONSULTANT will establish and maintain accurate records, in accordance with generally accepted accounting principles, of all expenses incurred for which payment is sought or made under this Contract, said records to be hereinafter referred to as the "RECORDS." Separate accounts will be established and maintained for all costs incurred under this Contract.

   b. The CONSULTANT will maintain the RECORDS for at least three (3) years from the date of final payment made by the DEPARTMENT under this Contract. In the event of a dispute with regard to the allowable expenses or any other issue

under this Contract, the CONSULTANT will thereafter continue to maintain the RECORDS at least until that dispute has been finally decided and the time for all available challenges or appeals of that decision has expired.

c. The DEPARTMENT or its representative may inspect, copy, or audit the RECORDS at any reasonable time after giving reasonable notice.

d. If any part of the work is subcontracted, the CONSULTANT will assure compliance with subsections (a), (b), and (c) above for all subcontracted work.

10. Submit monthly billings for the SERVICES (a signed original and a copy) along with a written progress report to the DEPARTMENT. The CONSULTANT agrees that the costs reported to the DEPARTMENT for this Contract will represent only those items that are properly chargeable in accordance with this Contract. The CONSULTANT also certifies that it has read the Contract terms and has made itself aware of the applicable laws, regulations, and terms of this Contract that apply to the reporting of costs incurred under the terms of this Contract.

The content and format of such written progress reports will be as defined in Exhibit A. The quantity, timing, and recipients of the progress reports will be as directed by the DEPARTMENT Project Manager. Regardless of the relative submittal dates of billings and progress reports, the time periods covered by the billings and progress reports must be the same.

Such billings will be submitted to the DEPARTMENT within thirty (30) days of the end of any month in which the CONSULTANT incurred costs except as follows: no billing will be in an amount less than $1,000 unless it is a Final Billing; however, the CONSULTANT will submit at least one billing at the end of each quarter year even if that billing is less than $1,000. Billings are not to be submitted more frequently than once per month for this Contract. All such billings will be labeled sequentially and be preceded by either "Progress Billing Number ___" or "Final Billing." The final billing must be for actual allowable costs incurred.

As a part of the billing, the CONSULTANT will report by task the actual hours of performance, the actual start, and, if necessary, an estimated completion date or an actual finish date, as may be further defined in Exhibit A. Tasks and associated dates are defined in the "Preconstruction Process Documentation Manual" that can be obtained from the DEPARTMENT, incorporated herein as if the same were repeated in full herein. In the event that the CONSULTANT does not submit a bill for a particular month, the CONSULTANT is still required to submit any reports or information required by this section.

The final billing for the SERVICES must be received within sixty (60) days of completion of the SERVICES. The DEPARTMENT may close the Contract after the sixty (60) days have passed, and any costs due the CONSULTANT may not be

reimbursed until completion of the audit by the DEPARTMENT. If an audit is not required, or if insufficient information is provided during the audit, the costs may be denied by the DEPARTMENT.

11. The CONSULTANT will provide professional liability insurance, as further defined in Exhibit B, attached hereto and made a part hereof.

12. The DEPARTMENT and the CONSULTANT will agree on the Key People to be assigned to the Project Team prior to any work being performed. The CONSULTANT will not replace any Key People assigned to the Project Team without prior written approval from the DEPARTMENT. The DEPARTMENT has the right to disapprove such replacements, and the CONSULTANT is required to find alternative replacements that are acceptable to the DEPARTMENT. The replacement of Key People from the Project Team without the DEPARTMENT's prior written approval will be considered a breach of the Contract, and the DEPARTMENT may terminate this Contract under the provisions of Section 22 (b). If a member of the Project Team who is one of the Key People leaves the Project Team, the CONSULTANT shall replace that person with a person who is acceptable to the DEPARTMENT within thirty days, unless an extension of time is granted by the DEPARTMENT. Failure by the CONSULTANT to find an acceptable replacement to the Project Team within thirty days or within the time extension granted by the DEPARTMENT, if any, will be considered a breach of the Contract, and the DEPARTMENT may terminate this Contract under the provisions of Section 22(b). "Key People" are defined as those people whose qualifications and experience are essential to providing quality SERVICES. "Project Team" means the personnel assigned by the CONSULTANT and the subconsultant(s) who are responsible for the completion of the SERVICES.

13. If the DEPARTMENT discloses its confidential information to the CONSULTANT, the CONSULTANT will maintain such information as confidential. Information provided by the DEPARTMENT will be deemed confidential if it is marked confidential or stated in writing to be confidential. The above obligations of confidentiality will not apply to:

    a. Information for which the DEPARTMENT gives prior written permission for publication or use.

    b. Information that is required to be disclosed based on court order.

    A violation of this provision will be considered a breach of this Contract, and the DEPARTMENT may terminate this Contract under the provisions of Section 22 (b).

    News releases pertaining to this Contract or the SERVICES to which it relates will not be made without prior written approval from the DEPARTMENT, and then only in accordance with explicit instructions from the DEPARTMENT. News releases made

without the DEPARTMENT's approval will be considered a breach of the Contract, and the DEPARTMENT may terminate this Contract under the provisions of Section 22 (b).

THE DEPARTMENT WILL:

14. Provide the CONSULTANT access to DEPARTMENT standards and information in its possession and related to the SERVICES that the CONSULTANT specifically requests, except for such standards and information as the CONSULTANT is specifically required to provide.

15. Pay the CONSULTANT after receipt of billings, subject to verification of progress. Maximum compensation under this Contract will be as follows:

    a. Compensation for the SERVICES will be on the basis of actual cost and a fixed fee for profit and, except as provided for in Section 40, will not exceed the maximum amount of Sixteen Million Seven Hundred One Thousand Seven Hundred Nineteen Dollars ($16,701,719.00), which amount includes a fixed fee for profit of One Million Four Hundred Thirty-Seven Thousand Forty-Five Dollars ($1,437,045.00).

    b. Proportional compensation for work performed as a result of the Dispute Resolution Process (DRP) will be on the basis of actual cost and a fixed fee for profit. The proportion of such costs incurred that will be reimbursed, if any, will be as determined by the DRP. The DEPARTMENT and the CONSULTANT will maintain separate RECORDS for the costs incurred relative to the DRP. The allowability of such costs will be as determined by the DEPARTMENT's auditor. The determination of allowability under the provisions of this section is limited to the acceptability of the expense relative to 48 C.F.R., Federal Acquisition Regulations, incorporated herein by reference as if the same were repeated in full herein. Such determination by the DEPARTMENT's auditor does not apply to the acceptability or completeness of work as determined by the DRP.

16. Determine that compensation for costs for SERVICES required and performed is in accordance with the provisions below. Any determination of costs in accordance with this section will not constitute a final determination by the DEPARTMENT. The DEPARTMENT reserves the right to make final determination as to the allowability or eligibility of any costs and to seek repayment of any money erroneously allowed and paid. Any funds not repaid to the DEPARTMENT may be withheld from any present or future contracts, it being further understood that such action will not constitute the exclusive remedy of the DEPARTMENT to recover said funds.

    a. Direct Salary Costs: Actual labor costs of personnel performing the SERVICES. This cost will be based on the employees' actual hourly rates of pay and the actual hours of performance on the SERVICES, as supported by employee time and

earning records. The DEPARTMENT will not reimburse the CONSULTANT for the premium portion of overtime pay unless the CONSULTANT has obtained prior written approval for such overtime from the DEPARTMENT.

b. Other Direct Costs: Actual costs of materials and services as may be required hereunder but that are not normally provided as part of the overhead of the CONSULTANT. All actual costs will be supported by proper receipts and proof of payments.

c. Overhead and Indirect Costs: A pro-rated portion of the actual overhead and indirect costs incurred by the CONSULTANT during work. The amount of overhead payment, including payroll overhead, will be calculated as applied rates to direct labor costs. Overhead and indirect costs will include those costs that, because of their incurrence for common or joint objectives, are not readily subject to treatment as direct costs.

d. Facilities Cost of Capital: A pro-rated portion of the actual facilities cost of capital incurred by the CONSULTANT during work if the estimated facilities cost of capital was specifically identified in the cost proposal for this work.

e. Subconsultant Costs: Actual costs of sub-consultants performing SERVICES under this Contract. Amounts for fixed fees paid by the CONSULTANT to the sub-consultant will not be considered actual costs of the CONSULTANT, but will be considered a part of the fixed fee of the CONSULTANT.

f. Travel and Subsistence: Actual costs in accordance with and not to exceed the amounts set forth in the current State of Michigan Standardized Travel Regulations, incorporated herein by reference as if the same were repeated in full herein.

g. Fixed Fee: In addition to payments set forth under (a), (b), (c), (d), (e), and (f) above, the DEPARTMENT agrees to pay the CONSULTANT a fixed fee. It is agreed and understood that such amount will constitute full compensation to the CONSULTANT for profit and will not vary because of any differences between the estimated cost and the actual cost. Overruns in the actual cost of the SERVICES will not warrant an increase or adjustment in the amount of the fixed fee.

h. Reimbursement for costs incurred is subject to the cost criteria set forth in 48 C.F.R., Federal Acquisition Regulations, incorporated herein by reference as if the same were repeated in full herein.

i. The DEPARTMENT will not reimburse or be responsible for any costs incurred by the CONSULTANT prior to the award or subsequent to the expiration of this Contract.

17. Make payment to the CONSULTANT in accordance with the provisions enumerated below. Within thirty (30) days of the receipt of the monthly billing from the CONSULTANT, the DEPARTMENT will either approve the billing for payment or, in lieu of such approval, inform the CONSULTANT that such approval has not occurred. Additionally, the DEPARTMENT will inform the CONSULTANT why the billing has not been approved and the actions, if any, required of the CONSULTANT to obtain such approval. Upon approval of the monthly billing by the Project Manager the billing will be submitted for payment which requires approximately thirty (30) additional days.

a. Progress payments may be made for reimbursement of amounts earned to date upon receipt of a billing and the written progress report. Progress payments will include direct salary costs, other direct costs, calculated amounts for overhead, and facilities cost of capital using applied rates as herein set forth. The portion of the fixed fee for profit that may be included in progress payments will be equal to the total fixed fee for profit multiplied by the percentage of the work that has been completed to date of billing. Progress payments will not be made more than once a month. Direct salary costs will be billed at the same amount that is paid to the employee.

b. Payment for reimbursement for a proportionate share of the work performed as determined by the Dispute Resolution Process will be paid in accordance with the provisions of Section 24 and after the thirty-day acceptance period, as further defined in Exhibit C, attached hereto and made a part hereof.

c. The DEPARTMENT may withhold from the payment for each progress billing a percentage of the requested payment for the SERVICES; such percentage will be from zero percent (0%) to five percent (5%), as determined by the DEPARTMENT. The DEPARTMENT will not withhold any funds from payments for reimbursement for work performed as a result of the Dispute Resolution Process.

d. Payment of any funds retained from the progress billings will be made upon acceptance of the SERVICES and satisfactory completion of an audit by the DEPARTMENT, but not later than one (1) year after the acceptance of the SERVICES and the DEPARTMENT's receipt of the Final Billing, as defined in Section 10.

e. In the event that the DEPARTMENT and the CONSULTANT agree, payment of any funds retained from the progress billings for work performed by a sub-consultant may be made upon acceptance of the SERVICES that were performed by that sub-consultant.

Upon receipt by the DEPARTMENT of the required documents and any other accompanying information in a form satisfactory to the DEPARTMENT, the

DEPARTMENT will process the payment request if the CONSULTANT is complying with its obligations pursuant to the Contract. Reimbursement of any cost will not constitute a final determination by the DEPARTMENT of the allowability or eligibility of such cost and will not constitute a waiver by the DEPARTMENT of any violation of the terms of this Contract committed by the CONSULTANT. The DEPARTMENT will make a final determination as to allowability and eligibility of costs only after final audit of the SERVICES has been conducted and will seek repayment of any money erroneously paid. The CONSULTANT will not be paid for costs attributable to correction of any errors or omissions occasioned by the CONSULTANT.

In the event that the DEPARTMENT determines that the CONSULTANT is not currently eligible to receive any or all of the funds requested, it will promptly notify the CONSULTANT, stating the reasons for such determination.

DEPARTMENT funds in this Contract made available through legislative appropriations are based on projected revenue estimates. The DEPARTMENT may reduce the amount of this Contract if the revenue actually received is insufficient to support the appropriation under which this Contract is made.

IT IS FURTHER AGREED THAT:

18. The parties will consider the SERVICES to be complete when accepted by the DEPARTMENT. Such acceptance by the DEPARTMENT is not intended to nor does it relieve the CONSULTANT of any of its obligations and responsibilities herein.

19. If the CONSULTANT deems that extra compensation is due it for work not clearly covered in this Contract, the CONSULTANT will notify the DEPARTMENT in writing of its intention to make claim for such extra compensation before beginning such work. Failure on the part of the CONSULTANT to give such notification will constitute a waiver of the claim for such extra compensation. The filing of such notice by the CONSULTANT will not be construed to establish the validity of the claim.

20. When delays are caused by circumstances or conditions beyond the control of the CONSULTANT, as determined by the DEPARTMENT, the CONSULTANT may be granted an extension of time as set forth in Section 46. Such extension will not operate as a waiver by the DEPARTMENT of any of its rights herein set forth

21. In the event that an audit performed by or on behalf of the DEPARTMENT indicates an adjustment to the costs reported under this Contract or questions the allowability of an item of expense, the DEPARTMENT will promptly submit to the CONSULTANT a Notice of Audit Results and a copy of the audit report, which may supplement or modify any tentative findings verbally communicated to the CONSULTANT at the completion of an audit.

Within sixty (60) days after the date of the Notice of Audit Results, the CONSULTANT will (a) respond in writing to the responsible Bureau of the DEPARTMENT indicating whether or not it concurs with the audit report, (b) clearly explain the nature and basis for any disagreement as to a disallowed item of expense, and (c) submit to the DEPARTMENT a written explanation as to any questioned or no opinion expressed item of expense, hereinafter referred to as the "RESPONSE." The RESPONSE will be clearly stated and will provide any supporting documentation necessary to resolve any disagreement or questioned or no opinion expressed item of expense. Where the documentation is voluminous, the CONSULTANT may supply appropriate excerpts and make alternate arrangements to conveniently and reasonably make that documentation available for review by the DEPARTMENT. The RESPONSE will refer to and apply the language of the contract. The CONSULTANT agrees that failure to submit a RESPONSE within the sixty (60) day period constitutes agreement with any disallowance of an item of expense and authorizes the DEPARTMENT to finally disallow any items of questioned or no opinion expressed cost.

The DEPARTMENT will make its decision with regard to any Notice of Audit Results and RESPONSE within one hundred twenty (120) days after the date of the Notice of Audit Results. If the DEPARTMENT determines that an overpayment has been made to the CONSULTANT, the CONSULTANT will repay that amount to the DEPARTMENT or reach agreement with the DEPARTMENT on a repayment schedule within thirty (30) days after the date of an invoice from the DEPARTMENT. If the CONSULTANT fails to repay the overpayment or reach agreement with the DEPARTMENT on a repayment schedule within the thirty (30) day period, the CONSULTANT agrees that the DEPARTMENT will deduct all or a portion of the overpayment from any funds then or thereafter payable by the DEPARTMENT to the CONSULTANT under this Contract or any other agreement or payable to the CONSULTANT under the terms of 1951 PA 51, as applicable. Interest will be assessed on any partial payments or repayment schedules based on the unpaid balance at the end of each month until the balance is paid in full. The assessment of interest will begin thirty (30) days from the date of the invoice. The rate of interest will be based on the Michigan Department of Treasury common cash funds interest earnings. The rate of interest will be reviewed annually by the DEPARTMENT and adjusted as necessary based on the Michigan Department of Treasury common cash funds interest earnings. The CONSULTANT expressly consents to this withholding or offsetting of funds under those circumstances, reserving the right to file a lawsuit in the Court of Claims to contest the DEPARTMENT's decision only as to any item of expense the disallowance of which was disputed by the CONSULTANT in a timely filed RESPONSE.

22. The DEPARTMENT may terminate this Contract for convenience or cause, as set forth below, before the SERVICES are completed. Written note of termination will be sent to the CONSULTANT. The CONSULTANT will be reimbursed in accordance with the following:

a. Termination for Convenience:

If the DEPARTMENT terminates this Contract for convenience, the CONSULTANT will be reimbursed for all costs incurred up to receipt of said Notice of Termination. Such reimbursement will be as set forth in Section 16. The CONSULTANT will be reimbursed a proportionate share of the fixed fee based on the portion of the project that is completed, as determined by the DEPARTMENT. The DEPARTMENT will receive the work product produced by the CONSULTANT under this Contract up to the time of termination, prior to the CONSULTANT being reimbursed. In no case will the compensation paid to the CONSULTANT for partial completion of the SERVICES exceed the amount the CONSULTANT would have received had the SERVICES been completed.

b. Termination for Cause:

In the event the CONSULTANT fails to complete the SERVICES in a manner satisfactory to the DEPARTMENT and/or replaces any Key People without the prior written approval of the DEPARTMENT, as set forth in Section 12, and/or fails to find an acceptable replacement to the Project Team within thirty days or within the extension of time granted by the DEPARTMENT, if any, as set forth in Section 12, the DEPARTMENT may terminate this Contract for cause. Written notice of termination will be sent to the CONSULTANT. The CONSULTANT will be reimbursed as follows:

The CONSULTANT will be reimbursed for SERVICES completed up to receipt of the Notice of Termination. The DEPARTMENT may pay a proportionate share for the work product. The value of such partially completed work product will be determined by the DEPARTMENT based on actual costs incurred up to the estimated value of the work product received by the DEPARTMENT, as determined by the DEPARTMENT. Such actual costs will be as set forth in Section 16. The CONSULTANT will be reimbursed a proportionate share of the fixed fee based on the portion of the project that is completed, as determined by the DEPARTMENT. The DEPARTMENT will receive the work product produced by the CONSULTANT under this Contract up to the time of termination, prior to the CONSULTANT being reimbursed. In no case will the compensation paid to the CONSULTANT for partial completion of the SERVICES exceed the amount the CONSULTANT would have received had the SERVICES been completed.

In the event that termination by the DEPARTMENT is necessitated by any wrongful breach, failure, default, or omission by the CONSULTANT, the DEPARTMENT will be entitled to pursue whatever remedy is available to it, including, but not limited to, withholding funds or off-setting against funds owed to the CONSULTANT under this Contract, as well as any other existing or future

contracts between the CONSULTANT and the DEPARTMENT, for any and all damages and costs incurred or sustained by the DEPARTMENT as a result of its termination of this Contract due to the wrongful breach, failure, default, or omission by the CONSULTANT. In the event of termination of this Contract, the DEPARTMENT may procure the professional SERVICES from other sources and hold the CONSULTANT responsible for any damages or excess costs occasioned thereby.

In the event the CONSULTANT disagrees with the DEPARTMENT regarding a determination of the completeness or value of SERVICES completed or the amount of reimbursement eligible under the provisions of this section, the CONSULTANT may invoke the alternative dispute process set forth in Section 24.

23. All questions that may arise as to the quality and acceptability of work, the manner of performance and rate of progress of the work, the interpretation of designs and specifications, and the satisfactory and acceptable fulfillment of the terms of this Contract will be decided by the DEPARTMENT, except as provided for in the "Dispute Resolution Process," as set forth in Section 24 of this Contract.

24. The CONSULTANT and the DEPARTMENT specifically agree that, in the event that problems arise with the SERVICES that may be the result of errors and/or omissions by the CONSULTANT or a failure of the CONSULTANT to otherwise perform in accordance with this Contract, the CONSULTANT and the DEPARTMENT will follow and abide by a decision reached by the Dispute Resolution Process (DRP), as described in Exhibit C, dated January 6, 2000, attached to this Contract, unless within thirty (30) days of the conclusion of such a process, the DEPARTMENT or the CONSULTANT rejects the DRP decision in such a manner as described in Exhibit C. It is further agreed that each party to this Contract reserves the right to file a lawsuit in a Michigan court of competent jurisdiction to contest the decisions or rulings of the DRP only at the completion of the DRP and then only if the DRP decision was timely rejected by the respective party in accordance with the requirements of the DRP. The CONSULTANT agrees to be financially responsible for any and all consequential damages incurred by the DEPARTMENT as a result of any errors and/or omissions attributed to the SERVICES or to a failure of the CONSULTANT to otherwise perform in accordance with this Contract, as determined by the DRP and/or a Michigan court of competent jurisdiction.

The CONSULTANT and the DEPARTMENT agree that during construction, time is of the essence in solving problems and avoiding delays. The CONSULTANT and the DEPARTMENT specifically agree to resolve such problems first and afterwards to determine cause and financial responsibility. The CONSULTANT agrees to continue providing the SERVICES under this Contract in accordance with the Progress Schedule or Construction Schedule while participating in the DRP. The CONSULTANT also agrees to participate in the DRP without immediately seeking compensation and agrees that such compensation will be as is later determined by the DRP.

25. For the purposes of this Contract's provisions, a standing neutral (S/N) is defined as a technically trained, educated, and credentialed professional who is active in the planning, design, and construction disciplines. The S/N must be capable of objectively listening, analyzing, and evaluating construction-related demands or claims that are in dispute.

The following two S/Ns were selected by the DEPARTMENT and the CONSULTANT:

Mr. Barry Buschmann
Mr. Robert Rabeller

Neither the CONSULTANT nor the DEPARTMENT will not replace its S/N without the prior written approval of the other. In the event that either the DEPARTMENT or the CONSULTANT discovers that its selected S/N is no longer available, it will notify the other within five (5) working days. The DEPARTMENT or the CONSULTANT will submit the name and a summary of the qualifications of its proposed replacement S/N within thirty (30) days of the time that it became aware that the prior S/N is no longer available. In the event that the CONSULTANT and the DEPARTMENT are not able to reach agreement on the replacement S/N, the DEPARTMENT may terminate this Contract.

26. The CONSULTANT and the DEPARTMENT agree that the DEPARTMENT will contract with the S/N(s) selected by both the CONSULTANT and the DEPARTMENT. The DEPARTMENT will reimburse the S/N(s) for hours worked at the rate(s) established in the individual contracts, plus expenses, in accordance with Section 16(b), 16(f), and 16(h), and subject to all necessary approvals, including, but not limited to, the Michigan Department of Civil Service and the State Administrative Board. The CONSULTANT will reimburse the DEPARTMENT for fifty percent (50%) of these costs. The contract for and reimbursement of the third S/N, if any, will be subject to the provisions and limitations set forth in this section.

27. The CONSULTANT and the DEPARTMENT specifically agree not to separately make contact with either S/N regarding Contract/project related matters without the presence or agreement of the other.

28. The CONSULTANT and the DEPARTMENT each specifically agree not to give or receive compensation, honorariums, gifts, or any transmittal of value to or from an S/N associated with this Contract or any other Contract between the parties except as a part of the DRP.

29. All documents prepared by the CONSULTANT, including tracings, drawings, estimates, specifications, field notes, investigative studies, and other documents, are the property of the DEPARTMENT.

30. This Contract is personal to the parties and cannot be assigned. The CONSULTANT will not sublet any portion of the contract or SERVICES, as herein defined, without the prior

written approval of the DEPARTMENT, and any such subcontracts will include all applicable provisions of this Contract.

After obtaining prior written approval from the DEPARTMENT to sublet a portion of the contract or SERVICES, the CONSULTANT will submit to the DEPARTMENT any and all subcontracts, including amendments, that are individually or in combination in excess of Twenty Five Thousand Dollars ($25,000.00) prior to the CONSULTANT signing said subcontracts. The CONSULTANT will not enter into multiple subcontracts of lesser amounts for the purpose of avoiding such approval process.

Such approval of said contract is given solely for the purposes of the DEPARTMENT. Approval does not constitute an assumption of liability, a waiver, or an estoppel to enforce any of the requirements of this Contract, nor will any such approvals by the DEPARTMENT be construed as a warranty of the third party's qualification, professional standing, ability to perform the work being subcontracted, or financial integrity.

The following named sub-consultant(s), as set forth in Exhibit A, will perform portions of the SERVICES:

Parsons Transportation Group
Alfred Benesch & Company
Wetland & Coastal Resources, Inc.
Commonwealth Cultural Resources Group, Inc.
Hamilton Anderson Associates
ACG: The al Chalabi Group, Ltd.
Woolpert Design, LLP
NTH Consultants, Ltd.
SOMAT Engineering, Inc.
Northwest Consultants, Inc.
TBE Group, Inc.

31. The CONSULTANT agrees to pay each subcontractor for the satisfactory completion of work associated with the subcontract no later than ten (10) calendar days from the receipt of each payment the CONSULTANT receives from the DEPARTMENT. The CONSULTANT agrees further to return retainage payments to each subcontractor within ten (10) calendar days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from these time frames may occur only upon receipt of written approval from the DEPARTMENT. These requirements are also applicable to all sub-tier subcontractors and will be made a part of all subcontract agreements.

This prompt payment provision is a requirement of 49 CFR, Part 26, as amended, and does not confer third-party beneficiary right or other direct right to a subcontractor against the DEPARTMENT. This provision applies to both Disadvantaged Business Enterprise (DBE) and non-DBE subcontractors.

The CONSULTANT further agrees that it will comply with 49 CFR, Part 26, as amended, and will report any and all DBE subcontractor payments to the DEPARTMENT semi-annually in the format set forth in Appendix G, dated June 1, 2001, attached hereto and made a part hereof, or any other format acceptable to the DEPARTMENT.

32. The CONSULTANT specifically agrees that in the performance of SERVICES herein enumerated, by itself, by an approved subcontractor, or by anyone acting in its behalf, it will comply with any and all state, federal, and local statutes, ordinances, and regulations and will obtain all permits that are applicable to the entry into and the performance of this Contract.

33. In connection with the performance of SERVICES under this Contract, the CONSULTANT (hereinafter in Appendix A referred to as the "contractor") agrees to comply with the State of Michigan provisions for "Prohibition of Discrimination in State Contracts," as set forth in Appendix A, dated March 1998, attached hereto and made a part hereof. This provision will be included in all subcontracts relating to this Contract.

During the performance of this Contract, the CONSULTANT, for itself, its assignees, and its successors in interest (hereinafter in Appendix "B" referred to as the "contractor"), agrees to comply with the Civil Rights Act of 1964, being P.L. 88-352, 78 Stat. 241, as amended, being Title 42 U.S.C. Sections 1971, 1975a-1975d, and 2000a-2000h-6, and the Regulations of the Department of Transportation (49 C.F.R. Part 21) issued pursuant to said Act, including Appendix B, dated June 2003, attached hereto and made a part hereof. This provision will be included in all subcontracts relating to this Contract.

34. The CONSULTANT will carry out the applicable requirements of the DEPARTMENT's Disadvantaged Business Enterprise (DBE) program and 49 CFR Part 26, including, but not limited to, those requirements set forth in Appendix C, attached hereto and made a part hereof.

35. The CONSULTANT warrants that it has not employed or retained any company or person other than bonafide employees working solely for the CONSULTANT to solicit or secure this Contract and that it has not paid or agreed to pay any company or person other than bonafide employees working solely for the CONSULTANT any fee, commission, percentage, brokerage fee, gifts, or any other consideration contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, the DEPARTMENT will have the right to void this Contract without liability and receive reimbursement for all compensation paid under this Contract or, at its discretion, to deduct from the contract compensation or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

36. In addition to the protection afforded by any policy of insurance, the CONSULTANT agrees to indemnify and save harmless the State of Michigan, the Michigan State

Transportation Commission, the DEPARTMENT, the FHWA, and all officers, agents, and employees thereof:

a. From any and all claims by persons, firms, or corporations for labor, materials, supplies, or services provided to the CONSULTANT in connection with the CONSULTANT's performance of the SERVICES, and

b. From any and all claims for injuries to or death of any and all persons, for loss of or damage to property, for environmental damage, degradation, and response and cleanup costs, and for attorney fees and related costs arising out of, under, or by reason of the CONSULTANT's performance of the SERVICES under this Contract, except claims resulting from the sole negligence of said indemnitee, its agents, or its employees.

The DEPARTMENT will not be subject to any obligations or liabilities by contractors of the CONSULTANT or their subcontractors or any other person not a party to the Contract without its specific consent and notwithstanding its concurrence in or approval of the award of any contract or subcontract or the solicitation thereof.

It is expressly understood and agreed that the CONSULTANT will take no action or conduct that arises either directly or indirectly out of its obligations, responsibilities, and duties under this Contract that results in claims being asserted against or judgments being imposed against the State of Michigan, the DEPARTMENT, the Michigan State Transportation Commission, and/or the FHWA, as applicable.

In the event that the same occurs, it will be considered as a breach of this Contract, thereby giving the State of Michigan, the DEPARTMENT, the Michigan State Transportation Commission, and/or the FHWA, as applicable, a right to seek and obtain any necessary relief or remedy, including, but not limited to, a judgment for money damages.

37. In accordance with 1980 PA 278, M.C.L. 423.321 et seq; MSA 17.458(22) et seq, the CONSULTANT, in the performance of this Contract, will not enter into a contract with a subcontractor, manufacturer, or supplier listed in the register maintained by the State of Michigan, Department of Labor, of employers who have been found in contempt of court by a federal court of appeals on not less than three (3) occasions involving different violations during the preceding seven (7) years for failure to correct an unfair labor practice, as prohibited by Section 8 of Chapter 372 of the National Labor Relations Act, 29 U.S.C. 158. The DEPARTMENT may void this Contract if the name of the CONSULTANT or the name of a subcontractor, manufacturer, or supplier utilized by the CONSULTANT in the performance of this Contract subsequently appears in the register during the performance of this Contract.

38. For Contracts in excess of One Hundred Thousand Dollars ($100,000.00):

a. The CONSULTANT stipulates that any facility to be utilized in the performance of this Contract, unless such Contract is exempt under the Clean Air Act, as amended (42 U.S.C. 7401 et seq., as amended including Pub. L. 101-549), and under the Clean Water Act, as amended (33 U.S.C. 1251 et seq., as amended, including Pub. L. 100-4), Executive Order 11738, and regulations in implementation thereof (40 CFR Part 15), is not listed on the date of Contract award on the U. S. Environmental Protection Agency (EPA) List of Violating Facilities Pursuant to 40 CFR 15.20.

b. The CONSULTANT agrees to comply with all the requirements of the Clean Air Act and the Clean Water Act and all regulations and guidelines listed thereunder related to CONSULTANT and Services under this Contract.

c. The CONSULTANT will promptly notify the DEPARTMENT and the U.S. EPA, Assistant Administrator for Enforcement, of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility to be utilized for this Contract is under consideration to be listed on the EPA List of Violating Facilities.

d. The CONSULTANT agrees to include or cause to be included the requirements of the preceding three paragraphs a, b, and c, in every nonexempt subcontract.

39. The CONSULTANT agrees that no otherwise qualified individuals with disabilities in the United States, as defined in Section 1630.2 of the Americans with Disabilities Act, Title 42, USC 12101, will, solely by reason of their disabilities, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving benefits under this Contract.

40. Any change in the scope or character of the SERVICES or in the cost, compensation, or term of this Contract will be by award of a prior written amendment to this Contract by the parties.

41. The CONSULTANT agrees that it will not volunteer, offer, or sell its services to any litigant against the DEPARTMENT with respect to any SERVICES it has agreed to perform for the DEPARTMENT under this Contract. Any similar services provided by the CONSULTANT that are not performed under this Contract and do not involve litigation against the DEPARTMENT are not covered by this provision.

42. The CONSULTANT's signature on this Contract constitutes the CONSULTANT's certification of "status" under penalty of perjury under the laws of the United States with respect to 49 CFR Part 29 pursuant to Executive Order 12549.

The certification that is outlined as a part of this Contract as Attachment A is Appendix A of 49 CFR Part 29 and applies to the CONSULTANT (referred to in Appendix A as "the prospective primary participant").

The CONSULTANT is responsible for obtaining the same certification from all subcontractors under this Contract by inserting the following paragraph in all subcontracts:

> "The subcontractor's signature on this Contract constitutes the subcontractor's certification of 'status' under penalty of perjury under the laws of the United States with respect to 49 CFR Part 29 pursuant to Executive Order 12549. The certification included as a part of this Contract as Attachment B is Appendix B of 49 CFR Part 29."

This certification is required of all subcontractors, testing laboratories, and other lower tier participants with which the CONSULTANT enters into a written arrangement for the procurement of goods or services provided for in this Contract.

43. Any approvals, reviews, and inspections of any nature by the DEPARTMENT will not be construed as a warranty or assumption of liability on the part of the DEPARTMENT. It is expressly understood and agreed that any such approvals are for the sole and exclusive purposes of the DEPARTMENT, which is acting in a governmental capacity under this Contract, and that such approvals are a governmental function incidental to the SERVICES under this Contract.

    Any approvals, reviews, and inspections by the DEPARTMENT will not relieve the CONSULTANT of its obligations hereunder, nor are such approvals, reviews, and inspections by the DEPARTMENT to be construed as a warranty as to the propriety of the CONSULTANT's performance but are undertaken for the sole use and information of the DEPARTMENT.

44. With regard to claims based on goods or services that were used to meet the CONSULTANT's obligation to the DEPARTMENT under this Contract, the CONSULTANT hereby irrevocably assigns its right to pursue any claims for relief or causes of action for damages sustained by the State of Michigan or the DEPARTMENT due to any violation of 15 USC, Sections 1 - 15, and/or 1984 PA 274, MCL 445.771 - .788, excluding Section 4a, to the State of Michigan or the DEPARTMENT.

    The CONSULTANT shall require any subcontractors to irrevocably assign their rights to pursue any claims for relief or causes of action for damages sustained by the State of Michigan or the DEPARTMENT with regard to claims based on goods or services that were used to meet the CONSULTANT's obligation to the DEPARTMENT under this Contract due to any violation of 15 USC, Sections 1 - 15, and/or 1984 PA 274, MCL

445.771 - .788, excluding Section 4a, to the State of Michigan or the DEPARTMENT as a third-party beneficiary.

The CONSULTANT shall notify the DEPARTMENT if it becomes aware that an antitrust violation with regard to claims based on goods or services that were used to meet the CONSULTANT's obligation to the DEPARTMENT under this Contract may have occurred or is threatened to occur. The CONSULTANT shall also notify the DEPARTMENT if it becomes aware of any person's intent to commence, or of commencement of, an antitrust action with regard to claims based on goods or services that were used to meet the CONSULTANT's obligation to the DEPARTMENT under this Contract.

45. This Contract will be in effect from the date of award through July 1, 2008.

46. Prior to expiration, the time for completion of performance under this Contract may be extended by the DEPARTMENT. Upon approval and authorization by the DEPARTMENT, a written time extension amendment will be prepared and issued by the DEPARTMENT. The CONSULTANT's signature on this Contract constitutes the CONSULTANT's specific agreement that all provisions of this Contract, unless otherwise amended, are continued through any time period for which this Contract is extended by way of such a time extension amendment. Any such extension will not operate as a waiver by the DEPARTMENT of any of its rights herein set forth.

47. In case of any discrepancies between the body of this Contract and any exhibits hereto, the body of the Contract will govern.

48. This Contract will become binding on the parties and of full force and effect upon signing by the duly authorized representatives of the CONSULTANT and of the DEPARTMENT and upon adoption of a resolution approving said Contract and authorizing the signature(s) thereto of the respective representative(s) of the CONSULTANT, a certified copy of which resolution will be sent to the DEPARTMENT with this Contract, as applicable.

IN WITNESS WHEREOF, the parties have caused this Contract to be awarded.

THE CORRADINO GROUP OF MICHIGAN, INC.

BY: _____

TITLE:

BY: _____

TITLE:

MICHIGAN DEPARTMENT OF TRANSPORTATION

BY: _____

TITLE: Department Director

Exhibit B

PROFESSIONAL LIABILITY INSURANCE

June 27, 1996

The consultant specifically agrees to maintain professional liability insurance for protection from claims arising out of the performance of services under this contract.

This insurance will be maintained in an amount not less than One Million Dollars ($1,000,000.00) per claim and annual aggregate. Such insurance will be in effect for the life of this contract and for the period through the construction and Department acceptance of such construction, resulting from the services provided by this contract, whichever is later.

As evidence of said coverage, the consultant will submit to the Department certificates of insurance. All required insurance will be in effect and all documents required by this section will be submitted to the Department prior to the commencement of the services. All such approvals will include a provision for a cancellation notice of not less than thirty (30) days, directed to the Department. The consultant specifically agrees to immediately provide written notification of any change to its professional liability insurance coverage.

Exhibit C

THE DISPUTE RESOLUTION PROCESS
January 6, 2000

BACKGROUND

During the design and construction phases of projects, there are quality assurance and quality assessment procedures required of consultants and the Department that are intended to minimize the occurrence of errors and/or omissions. Even so, there are often valid changes required during construction in order to complete the project. These changes may or may not be the result of the Design or Construction Engineering Consultant's errors or omissions.

Some of the changes may be due to errors and/or omissions in the Design Plans or Construction Engineering Services resulting in cost increases to the project or degradation of quality of the road project. When changes to a project result in errors or omissions and cause additional costs or reduction in quality, an assessment must be made to determine the extent of the Design and/or Construction Engineering consultant's responsibility for the errors and/or omissions, including the consultant's share of the additional costs.

Department personnel must keep in mind that Design Plans and Construction Engineering Services will normally contain minor deficiencies that do not materially affect the cost or quality of the project. The steps to assign responsibility are intended to be used in those cases where Department personnel have reason to believe that, in their professional judgment, a Design and/or Construction Engineering Consultant did not adhere to recognized professional standards of care in the performance of its duties, resulting in substantial additional costs to the Department.

It is also important to understand that the cost of correcting an error and/or omission should be compared to the estimated first-time cost that would have been incurred had the services or contract documents been correct to begin with. For example, the omission of a pay item that has to be added during construction will cause an increase in the construction cost, but the cost would have been higher had the pay item been included from the beginning. In this case, the cost of the omission depends on how much more it costs to include the item during construction than it would have cost had the item been included when the project was bid. Another example is improper or missing testing documentation. In this case, the cost of the omission depends on whether or not the quality of the construction was affected by the missing documentation.

THE PROCESS - OVERVIEW

The new policy of the Bureau of Highways is that projects will be built as designed and let. Furthermore, field staff will not revise the design for purposes of enhancement or personal choice. In the event the project cannot be practically built or let as designed, due to omissions or errors, then the steps of this procedure will govern.

There are three (3) possible categories of potential errors, omissions, or questions of a material nature. The first is when potential errors, omissions, or questions of a material nature are related to

the Design Plans only. In this case, the RE/PE will contact the DPM. These events will be referred to as "Design Issues" until such time as the cause, effect, and responsibility have been determined. *[Any issue is material when the cost of the error and/or omission is perceived to be greater than the administrative cost of the dispute resolution process.]*

The second case is when it cannot be determined whether the potential errors, omissions, or questions of a material nature are encountered in the Construction Engineering Services or in the Design Plans. In this case, the RE/PE will contact the DPM. These events will be referred to as "Construction Engineering/Design Issues" until such time as the cause, effect, and responsibility have been determined.

The third case is when the potential errors, omissions, or questions of a material nature are encountered in Construction Engineering Services and not related to the Design Plans. In this case, the RE/PE will decide if the issue is a material or not. These events will be referred to as "Construction Engineering Issues" until such time as the cause, effect, and responsibility have been determined.

In the event that the RE/PE decides that the Design and/or Construction Engineering Issue is not material, the RE/PE will proceed unilaterally. A copy of the Design Issue decision, changes, and/or other relevant documents must be sent immediately to the DPM. Construction and Technology Division, and the Construction Engineering Consultant, if applicable. Typically, this will be a facsimile of the work order. The DPM will forward these decisions, changes, and/or other documents to the Design Consultant. This step is important for two reasons. First, the DPM, the Design Consultant, and/or the Construction and Technology Division will have an opportunity to review the change and take action if they disagree. Second, this will give an opportunity for everyone to learn of the deficiencies in order to improve the product in the future.

In the event that the RE/PE is uncertain regarding the designer's intent, he/she must contact DPM to determine that intent. The DPM will contact the consultant staff when appropriate.

The process will initially focus on solving the problem with the objective of minimizing the impact on construction. After that, the process will focus on responsibility according to the multi-step procedure that follows. The step of determining responsibility must be taken any time the Design and/or Construction Engineering Consultant is brought into the process and incurs costs. These steps must also be taken any time errors and/or omissions in consultant prepared Design Plans or Construction Engineering Services result in increased cost during construction or decrease in the quality of the project.

The determination of the degree of responsibility for substandard work must include a review of the consultant's scope of work, the standards in effect when the work was done, design information provided to the consultant, and directions provided by the Department. In making this determination, the DPM and the RE/PE must discuss the error and/or omission with the consultant and any involved department personnel to obtain all information and points of view. The DPM and the RE/PE are to make a record of conversations and other documentation that support whatever determination is made and then place copies of those records in the project files.

Separate budgets will be created for payment to Design and Construction Engineering Consultants for their correction of Design or Construction Engineering Issues that are judged not be their responsibility and for changes by the DPM and RE/PE for their activities during this ADR process. These funds will be "A" phase but separate from the Construction Engineering funds.

PROCESS – DISPUTE RESOLUTION

At each level of these proceedings, the first focus should be on resolving the Design or Construction Engineering Issue in order to minimize the impact on construction. MDOT and the consultant will attempt to jointly determine the solution. In the event that such agreement cannot be reached, MDOT alone will decide on the appropriate solution. In the event that the Design and/or Construction Engineering Consultant does not agree with any of these decisions, it may appeal its financial responsibility to the next level. After the Design or Construction Engineering Issue is resolved, the focus shifts to responsibility and financial implications.

MDOT will be represented by Design Division, Construction and Technology Division, and/or the Region at these meetings, as appropriate. All decisions must be completely agreed upon by the representatives of the Department. The dollar limits for decision authority are the same as those established by the State Administrative Board and the State Transportation Commission for the Construction Contract "Overrun & Extra" process.

LEVEL ONE - This level of meetings is the first step in the resolution process. The people involved at these meetings are the operational staff who are directly involved in the project. Staff from the RE/PE, DPM, and the Design and/or Construction Engineering Consultant should be included, with staff from the FHWA as observers. This group is empowered to resolve Design and/or Construction Engineering Issues, alter construction of the project, and assign responsibility for the Design and/or Construction Engineering Issue and its consequences up to established dollar limits. Beyond those limits, the issue moves immediately to LEVEL TWO.

LEVEL ONE - A - Find the solution first; focus only on the problem and the resolution of that problem. In the event that agreement on the solution to the issue is reached, this group proceeds to responsibility and financial implications. In the event that the RE/PE and the DPM do not agree on a solution to a Design Issue, the issue moves immediately to LEVEL TWO.

LEVEL ONE - B - After the solution is agreed upon and construction resumes or continues, this same group shifts its focus to responsibility and financial implications. This step begins with an exchange of information and then meetings/negotiations. In the event that agreement is reached on a Design Issue, the DPM processes a letter of agreement to be signed by the Design Consultant and the Department. The Design unit leader signs for MDOT, up to established dollar limits. In the event that agreement is reached on a Construction Engineering Issue, the RE/PE processes a letter of agreement to be signed by the Construction Engineering Consultant and the Department. RE/PE signs for MDOT, up to established dollar limits. For issues involving both Design and Construction, the RE/PE processes a letter of agreement to be signed by the Construction Engineering Consultant, the

Design Consultant, and the Department. RE/PE signs for MDOT, up to established dollar limits.

LEVEL TWO - This is an appeal level of meetings and includes the upper management of the same organizations, the Construction and Technology Division, the Design Division, and the Design and/or Construction Engineering Consultant, with staff from the FHWA as observers. The staff involved in LEVEL ONE are not involved in the decision at this level; however, they are included in this process for informational purposes.

LEVEL TWO - A - In the event that agreement on the *solution* is not reached at LEVEL ONE, the decision is appealed to upper management within MDOT and the consulting firm(s). MDOT and the consultant will attempt to determine the solution; however, in the event that such agreement cannot be reached, MDOT alone will decide on the appropriate solution to the issue.

LEVEL TWO - B - In the event that agreement on *responsibility* is not reached at LEVEL ONE, the decision is appealed to upper level management within MDOT and the consulting firm. In the event that the consultant and MDOT agree on responsibility, the Engineer of Design or Construction and Technology, as appropriate, processes a letter of agreement to be signed by all parties. In the event that agreement regarding responsibility is not reached at this level, the issue is appealed to LEVEL THREE.

LEVEL THREE - In the event that some or all of the dispute is not resolved at LEVEL TWO, the unresolved issues will move to LEVEL THREE of the ADR process. The Department and the consultant will notify the pre-selected PANEL that its services are required. The PANEL will attempt to guide the Department and the consultant toward an agreement. The staff from the FHWA will also be present as observers. At such time as the PANEL determines that the Department and the consultant are not making reasonable progress toward resolving one or more issues, the PANEL will render a non-binding written decision of those issues.

Upon the conclusion of the ADR process, MDOT will do one of the following in accordance with the results of the ADR process:

a. The DPM or RE/PE will prepare a billing to the Design or Construction Engineering Consultant for its share of the MDOT costs incurred for work performed during the ADR process plus its share of any increased costs of construction, in accordance with the Design Consultant's determined share of responsibility; or

b. The DPM or RE/PE will prepare a payment to the Design or Construction Engineering Consultant for a share of its costs incurred for work performed during the ADR process in accordance with its determined share of responsibility.

APPENDIX A
PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS

In connection with the performance of work under this contract; the contractor agrees as follows:

1. In accordance with Act No. 453, Public Acts of 1976, the contractor hereby agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or as a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, or marital status. Further, in accordance with Act No. 220, Public Acts of 1976 as amended by Act No. 478, Public Acts of 1980 the contractor hereby agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of a disability that is unrelated to the individual's ability to perform the duties of a particular job or position. A breach of the above covenants shall be regarded as a material breach of this contract.

2. The contractor hereby agrees that any and all subcontracts to this contract, whereby a portion of the work set forth in this contract is to be performed, shall contain a covenant the same as hereinabove set forth in Section 1 of this Appendix.

3. The contractor will take affirmative action to insure that applicants for employment and employees are treated without regard to their race, color, religion, national origin, age, sex, height, weight, marital status or a disability that is unrelated to the individual's ability to perform the duties of a particular job or position. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

4. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, age, sex, height, weight, marital status or disability that is unrelated to the individual's ability to perform the duties of a particular job or position.

5. The contractor or his collective bargaining representative will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers' representative of the contractor's commitments under this appendix.

6. The contractor will comply with all relevant published rules, regulations, directives, and orders of the Michigan Civil Rights Commission which may be in effect prior to the taking of bids for any individual state project.

7. The contractor will furnish and file compliance reports within such time and upon such forms as provided by the Michigan Civil Rights Commission, said forms may also elicit information as to the practices, policies, program, and employment statistics of each subcontractor as well as the contractor himself, and said contractor will permit access to his books, records, and accounts by the Michigan Civil Rights Commission and/or its agent, for purposes of investigation to ascertain compliance with this contract and relevant with rules, regulations, and orders of the Michigan Civil Rights Commission.

8. In the event that the Civil Rights Commission finds, after a hearing held pursuant to its rules, that a contractor has not complied with the contractual obligations under this agreement, the Civil Rights Commission may, as part of its order based upon such findings, certify said findings to the Administrative Board of the State of Michigan, which Administrative Board may order the cancellation of the contract found to have been violated and/or declare the contractor ineligible for future contracts with the state and its political and civil subdivisions, departments, and officers, and including the governing boards of institutions of higher education, until the contractor complies with said order of the Civil Rights Commission. Notice of said declaration of future ineligibility may be given to any or all of the persons with whom the contractor is declared ineligible to contract as a contracting party in future contracts. In any case before the Civil Rights Commission in which cancellation of an existing contract is a possibility, the contracting agency shall be notified of such possible remedy and shall be given the option by the Civil Rights Commission to participate in such proceedings.

9. The contractor will include, or incorporate by reference, the provisions of the foregoing paragraphs (1) through (8) in every subcontract or purchase order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission, and will provide in every subcontract or purchase order that said provisions will be binding upon each subcontractor or seller.

March 1998

(Rev. 06/03)

APPENDIX B
TITLE VI ASSURANCE

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations**: The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the Department of Transportation, Title 49, code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

2. **Nondiscrimination**: The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulation, including employment practices when the contractor covers a program set forth in Appendix B of the Regulations.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment**: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

4. **Information and Reports**: The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the State Highway department of the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the State highway department, or the Federal highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance**: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the State highway department shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

a. withholding of payments to the contractor under the contract until the contractor complies, and/or

b. cancellation, termination or suspension of the contract, in whole or in part.

6. **Incorporation of Provisions**: The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the State highway department or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the State highway department to enter into such litigation to protect the interests of the State, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

APPENDIX C

Assurances that Recipients and Contractors Must Make
(Excerpts from US DOT Regulation 49 CFR § 26.13)

A. Each financial assistance agreement signed with a DOT operating administration (or a primary recipient) must include the following assurance:

The recipient shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any US DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR Part 26. The recipient shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of US DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR Part 26 and as approved by US DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the department may impose sanctions as provided for under Part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 et seq.).

B. Each contract MDOT signs with a contractor (and each subcontract the prime contractor signs with a subcontractor) must include the following assurance:

The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of US DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

APPENDIX G

June 1, 2001

Prime Consultant Statement of DBE Subconsultant Payments

Information required in accordance with 49 CFR §26.37 to monitor progress of the prime consultant in meeting contractual obligations to DBEs.

PRIME CONSULTANT:	☐CHECK IF PRIME IS MDOT-DBE CERTIFIED	AUTHORIZATION NO.	CONTRACT NO.
BILLING PERIOD:	☐ Check if Final Payment		JOB NO.

CERTIFIED DBE CONSULTANT	SERVICES WORK PERFORMED	TOTAL CONTRACT AMOUNT	CUMULATIVE DOLLAR VALUE OF SERVICES COMPLETED	DEDUCTIONS	ACTUAL AMOUNT PAID TO DATE	ACTUAL AMOUNT PAID DURING THIS BILLING PERIOD	DBE AUTHORIZED SIGNATURE (Final Payment Report Only)	DATE

As the authorized representative of the above prime consultant, I state that, to the best of my knowledge, this information is true and accurate.

PRIME CONSULTANT'S AUTHORIZED REPRESENTATIVE (SIGNATURE):	TITLE	DATE

FOR MDOT USE ONLY

COMMENTS:

CONTRACT ADMINISTRATOR (Signature)	DATE:

Special note: "Prime Consultant or Authorized Representative" refers to recipients of federal funds as defined at 49 Code of Federal Regulations Part 26.

INSTRUCTIONS

This statement reports the actual dollar amounts of the project cost earned by and paid to DBE subconsultants. Complete and submit to the Contract Administrator semi-annually. Some forms may be blank if no payment was made since the previous billing.

For "Authorization No., Contract No.," and "Job No." as appropriate, use the numbers assigned by MDOT.

For "Billing Period," report the calendar days covered by the billing.

For "Services Work Performed" report the main service performed by the subconsultant during the reporting period.

For "Total Contract Amount" report the total amount of the contract between the prime consultant and subconsultant.

For "Cumulative Dollar Value of Services Completed" report the total amount the subconsultant has earned since beginning the project.

For "Deductions," report deductions made by the prime consultant to the subconsultant's "Cumulative Dollar Value of Services Completed" for retainage, bond or other fees, materials, services or equipment provided to the subconsultant according to mutual, prior agreement (documentation of such agreement may be required by MDOT).

For "Actual Amount Paid to Date," report cumulative actual payments made to the subconsultant for services completed.

For "Actual Amount Paid During this Billing Period" report actual payments made to the subcontractor for services during this billing period.

Provide "DBE Authorized Signature" for final payment only.

Be sure to sign, title and date this statement.

MDOT CONTRACT ADMINISTRATOR:

Complete "Comments" if necessary, sign, date and forward to the Office of Equal Opportunity within seven (7) days of receipt.

Attachment A

(This is a reproduction of Appendix A of 49 CFR Part 29)

Certification Regarding Debarment, Suspension, and Other Responsibility Matters -- Primary Covered Transactions

Instructions for Certification

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48

CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters -- Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
   a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;
   b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
   c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
   d. Have not within a three year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

[60 FR 33042, 33064, June 26, 1995]

ATTACHMENT B

[This is a reproduction of Appendix B of 49 CFR Part 29]
CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION--LOWER TIER COVERED TRANSACTIONS

Instructions for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", "proposal", and "voluntarily excluded", as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion--Lower Tier Covered Transaction", without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List (Telephone No. (517) 335-2513 or (517) 335-2514).

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and

information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion--Lower Tier Covered Transactions

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

[Federal Register Doc. 88-11561 Filed 5-25-88; 8:45 a.m.] March 9, 1989

RRADINO

PRICED PROPOSA

ORIGINAL

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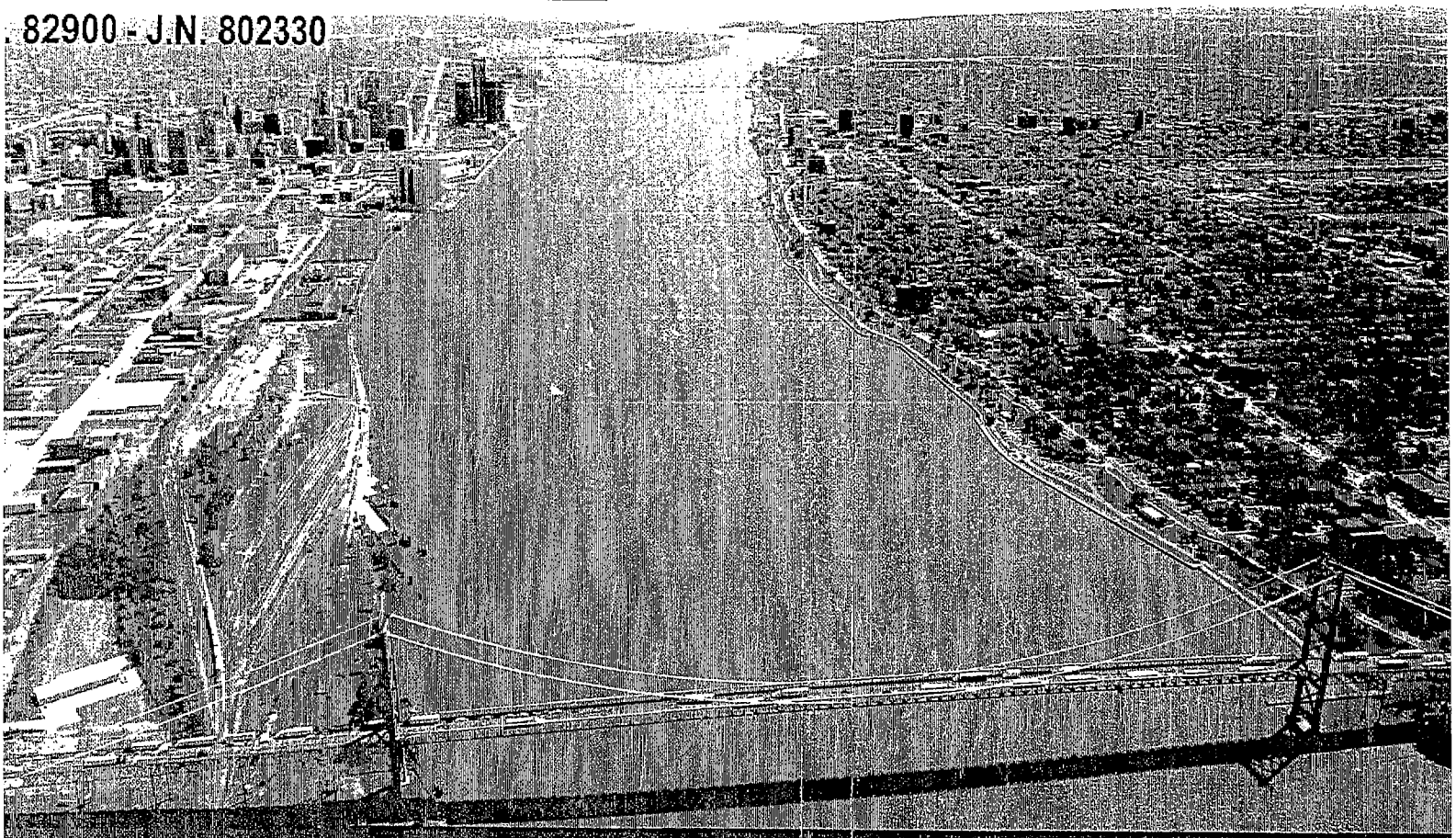
. 82900 - J.N. 802330



ed to:

igan Department
ansportation

by:

orradino Group of Michigan, Inc.

ship with:

s Transportation Group

ber 7, 2004

In association with:
Alfred Benesch & Company
Wetland & Coastal Resources, Inc.
Commonwealth Cultural Resources Group, Inc.
Hamilton Anderson Associates
ACG: The al Chalabi Group, Ltd.
Woolpert Design, LLP
NTH Consultants, Ltd.
SOMAT Engineering, Inc.
Northwest Consultants, Inc.
TBE Group, Inc.

THE CORRADINO GROUP

CORRADINO

ENGINEERS PLANNERS CONSTRUCTORS

EXHIBIT A

December 10, 2004

Ms. Margaret Barondess
Michigan Department of Transportation
425 West Ottawa Street
Lansing, Michigan 48909

Dear Margaret:

The Corradino Group (Corradino), its partner, Parsons Transportation Group (Parsons), and our team members have prepared the attached proposed cost estimate for the Detroit River International Crossing (DRIC) EPE/EIS Project. We want to thank you for this opportunity to take the next step in the consultant selection process on this very important project.

The attached cost estimate reflects my meeting with you of November 22, 2004, and incorporates by reference the Scope of Services submitted under separate cover. It provides further detail regarding vendor costs for a number of the subconsultants. Also included are letters from each subconsultant reiterating their commitment to the project and the fact that they have no known conflicts of interest. Likewise Corradino states that it has no known conflicts of interest of which we are aware.

The total cost proposed is $16,701,719, including $14.8 million in services. In developing that cost it is noted MDOT's requirements have been adhered to that: 1) the prime consultant (Corradino) perform at least 40 percent of the value of the services ($6.0 million); and, 2) the Disadvantaged Business Enterprises be responsible for work that equals 12 percent of the value of the services ($1.7 million). The costs are also responsive to the commitment made in our proposal of key personnel. In incurring those costs, subcontractors will be paid actual cost plus fee, based on actual costs incurred.

Again, our team is pleased and proud to have been chosen to negotiate a contract on the Detroit River International Crossing EPE/EIS. We await your notice of when/how to take the next steps.

Very truly yours,

THE CORRADINO GROUP

Joe C. Corradino, PE
Project Manager

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FIRST TRUST CENTRE • SUITE 300 NORTH
200 S FIFTH STREET • LOUISVILLE, KY 40202
TEL 502.587.7221 • FAX 502.587.2636
WWW.CORRADINO.COM

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A

Exhibit A

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

Name of Prime Consultant: The Corradino Group

DIRECT LABOR

Name	Classification	Person Hours	x	Hourly Rate	=	Labor Costs
Corradino, JC	Proj. Manager	4600	x	$76.45		$351,670
Corradino, JC	Pro Bono	798	x	$0.00		$0
Anderson	Graphics	1888	x	$19.88		$37,533
Corradino,JM	Sen. Planner	452	x	$51.28		$23,179
Corradino, G	Planner	670	x	$26.50		$17,755
Bowers	Eng. II	510	x	$27.95		$14,255
Butler	Planner	3380	x	$23.82		$80,512
Ciscar	Environmental	612	x	$61.40		$37,577
Foutz	Sen. Planner	580	x	$52.93		$30,699
Hartman	Lead Traffic Eng.	3752	x	$47.89		$179,683
Hill	Traf. Eng	1672	x	$36.86		$61,630
Kaltenbach	Lead Modeler	1722	x	$73.45		$126,481
Llama	Translator	1700	x	$23.49		$39,933
Rama-Murthy	Modeler	1110	x	$24.04		$26,684
Randhawa	Modeler	2040	x	$25.20		$51,408
Ray	Trans. Planner	2980	x	$28.97		$86,331
Saha	Modeler	340	x	$46.02		$15,647
Santana	Planner	4610	x	$22.51		$103,771
Stone, T.	Lead Environ.	4052	x	$45.74		$185,338
Strange	Planner	1920	x	$43.01		$82,579
Sullivan	Haz. Materials	460	x	$68.38		$31,455
Tackett	Haz. Materials	3330	x	$38.59		$128,505
Townsend	Planner	2760	x	$28.91		$79,792
Wiseman	Planner	940	x	$25.04		$23,538
Wolf	Editor	2200	x	$22.06		$48,532
Young	GIS	1100	x	$32.89		$36,179
	Total Hours	50178			**Total Labor**	**$1,900,665**

LABOR ESCALATION

	$1,900,665	x	6.13%	**Escalation**	**$116,511**

OVERHEAD

	$2,017,175	x	168.48%	**Total Overhead**	**$3,398,537**

FACILITIES COST OF CAPITAL

	$2,017,175		0.3141%	**Total F.C.C.**	**$6,336**

DIRECT EXPENSES	Unit Cost		Units		
Shipping	$20.00	x	360	Overnights	7200
Air Travel	$400.00	x	125	Louisville & Miami	50000
Rental Car	$60.00	x	216	Days	12960
Motel	$65.00	x	216	Nights	14040
Meals	$38.50	x	216	Days	8316
Printing - B&W	$0.07	x	280000	In-house	19600
Printing - Color	$0.35	x	160000	In-house	56000
Translations Arabic	$0.50	x	120 words/page x 1000 pages		60000
Document Locator	$15,000.00	x	1		15000
Regal - Border Wizard Software	$60,000.00	x	1		60000
Videobred (see supporting sheet)	$45,525.00	x	1		45525
XERXES (see supporting sheet)	$51,610.00	x	1		51610
				Total Direct Costs	**$400,251**

FIXED FEE

	$5,415,713	x	11.00%	**Total Fixed Fee**	**$595,728**

TOTAL CORRADINO COSTS $6,418,028

Corporate Translation Services, Inc. | **Arabic Translation & Typesetting**

26966 Rochelle
Dearborn Heights, MI 48127
Tel/Fax: 313-792-8452 or 313-792-1327
Cell: 313-213-0310
E-mail: CorporateTranslation@msn.com

State Certified Translators

December 3, 2004

Dear Mr. Corradino:

In response to communications with Ted Stone on involvement in the Detroit River International Crossing Project, I understand that our firm, Corporate Translation Services, Inc., could provide Arabic translation services for key documents. Our firm charges $0.50 a word for translation. Assuming 120 words per page and 1000 pages of translation, it is my estimate that the cost would be $ 60,000.

Obviously, this is an estimate and payment for our services will be on actual services rendered/costs incurred.

Sincerely yours,

Fatima Aidibi

Fatima K. Aidibi

REGAL DECISION SYSTEMS, INC.
1302 Concourse Drive; Suite 400
Linthicum, MD 21090

Mr. Joseph C. Corradino
The Corradino Group, Inc.
200 South Fifth Street
Suite 300 North
Louisville, KY 40202
p.(502) 587-7221
c.(502) 645-5732

RE: Regal Decision Systems Inc Rate estimate for Detroit Third Crossing

Mr Corradino,

Regal Decision Systems Inc is pleased to provide you with our proposal to provide modeling and consultation services. Regal Decision Systems Inc will use Border Wizard for analysis of proposed US border inspection plazas for the Detroit River International Crossing project with MDOT.

We propose the following hourly billing rates for our Program Manager; Senior/Junior modelers; and Consultant. We would also expect to receive reimbursement of any direct costs such as travel expenses and shipping charges. We understand the established working budget for this work is $60,000 and that you anticipate needing analysis for up to three illustrative alternatives. We will need more details before we could submit a firm budget for this work.

Therefore we would agree with the $60,000 budget as an initial budget, which will be adequate to cover up to 600 hours of technical support by Regal. When you have more detailed information regarding the analyses needed from Regal, we will provide you a more detailed task estimate with hours and expense estimates.

Title	Fixed Hourly Billing Rate
Program Manager:	$131.13
Senior Modeler:	$111.81
Junior Modeler:	$ 71.66
Consultation:	$109.68

Please let me know if there is anything else you will need from me.

Thanks,

Harry Caldwell
VP, Business Development
p.410.691.5201
f.410.691.5206

Exhibit A - *Attachment*

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

Name of Vendor: **Regal - Border Wizard**

DIRECT LABOR					
Classification	**Person Hours**	**x**	**Hrly Rate**	**=**	**Labor Costs**
Program Manager	80	x	$131.13		$10,490
Senior Modeler	100		$111.81		$11,181
Junior Modeler	220		$71.66		$15,765
Consultation	200		$109.68		$21,936
	600				
Total Hours	NA			**Total Labor**	**$59,373**
OVERHEAD					
	$59,373	x	0.00%	**Overhead**	**$0**
FACILITIES COST OF CAPITAL					
	$59,373	x	0.00%	**Total F.C.C.**	**$0**
DIRECT EXPENSES	Unit Cost		Units		
Misc.	$627	x	1		$627
		x			$0
		x			$0
		x			$0
		x			$0
		x			$0
		x	150		$0
				Total Direct Costs	**$627**
	$59,373	x	0.00%	**Total Fixed Fee**	**$0**
				TOTAL REGAL COSTS	**$60,000**

NOTE: THIS IS A BREAKDOWN OF A VENDORS COST. THE VENDOR IS LISTED ON EXHIBIT A UNDER CORRADINO GROUP'S DIRECT COSTS.

Exhibit A - *Attachment*

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement
Name of Vendor:	**Videobred**	

DIRECT LABOR

Classification	Person Hours	x	Hourly Rate	=	Labor Costs
NA	NA	x	NA		$0
Total Hours	NA			**Total Labor**	**$0**

OVERHEAD

	$0	x	0.00%	**Total Overhead**	**$0**

FACILITIES COST OF CAPITAL

	$0	x	0.00%	**Total F.C.C.**	**$0**

DIRECT EXPENSES	Unit Cost		Units		
Script development	$800	x	6		$4,800
Prod. planning/expenses	$450	x	6		$2,700
Shooting archival footage	$1,500	x	6		$9,000
Narrator	$350	x	6		$2,100
Audio Mixing & Music	$400	x	6		$2,400
Edit to tape	$4,000	x	6		$24,000
Duplicate copies	3.5	x	150		$525
				Total Direct Costs	**$45,525**
	$0	x	0.00%	**Total Fixed Fee**	**$0**
				TOTAL VIDEOBRED COSTS	**$45,525**

NOTE: THIS IS A BREAKDOWN OF A VENDORS COST. THE VENDOR IS LISTED ON EXHIBIT A UNDER CORRADINO GROUP'S DIRECT COSTS.

VIDEOBRED

December 03, 2004

The Corradino Group
ATTN: Joe Corradino
200 South Fifth Street, Suite 300 North
First Trust Centre
Louisville, Kentucky 40202
502-587-7221

Dear Mr. Corradino,

Thank you for giving us the opportunity to bid on this project.

In response to communications with Ted Stone on involvement in the Detroit River International Crossing Project, I understand that our firm, Videobred, could provide services in the video production area. With the work defined as providing visualized concepts of engineering proposals, it is my estimate that the cost would be $45,525 as shown on the attached sheet.

Obviously, this is an estimate and payment for our services will be on actual services rendered/costs incurred.

Very truly yours,

Steve Clark
Production Manager - Videobred
502-584-5787
steve@videobred.com

VIDEOBRED

December 03, 2004

The Corradino Group
ATTN: Joe Corradino
200 South Fifth Street, Suite 300 North
First Trust Centre
Louisville, Kentucky 40202
502-587-7221

Dear Mr. Corradino,

Videobred is pleased to submit its price proposal of $45,525, under separate cover, as a sub-consultant to The Corradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign this staff to accomplish our assignments in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest of which we are aware.

Very truly yours,

Steve Clark
Production Manager - Videobred
502-584-5787
steve@videobred.com

Exhibit A - *Attachment*

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement
Name of Vendor:	**XERXES**	

DIRECT LABOR					
Classification	**Person Hours**	**x**	**Hourly Rate**	**=**	**Labor Costs**
Doug Van Meter	400	x	$125.00		$50,000
Total Hours	NA			**Total Labor**	**$50,000**
OVERHEAD					
	$50,000	x	0.00%	**Total Overhead**	**$0**
FACILITIES COST OF CAPITAL					
	$50,000	x	0.00%	**Total F.C.C.**	**$0**
DIRECT EXPENSES	Unit Cost		Units		
Mileage	$0.375	x	1200	Miles	$450
Shipping	$20	x	28	Overnights	$560
Misc.		x			$600
		x			$0
		x			$0
		x			$0
		x			$0
				Total Direct Costs	**$1,610**
	$50,000	x	0.00%	**Total Fixed Fee**	**$0**
				TOTAL XERXES COSTS	**$51,610**

NOTE: THIS IS A BREAKDOWN OF A VENDORS COST. THE VENDOR IS LISTED ON EXHIBIT A UNDER CORRADINO GROUP'S DIRECT COSTS.

3043 Breckenridge Lane #A
Louisville, Kentucky 40220
502-473-8811
www.xerxes.com

XERXES

December 3rd, 2004

Dear Mr. Corradino:
Corridino Group
200 South 5th
Suite 300 North
Louisville, KY 40202

Xerxes Inc. is pleased to submit its price proposal of $51,610, under separate cover, as a subconsultant to The Corradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign this staff to accomplish our assignments in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest of which we are aware.

Very truly yours,

Rory McMahan

3043 Breckenridge Lane #A
Louisville, Kentucky 40220
502-473-8811
www.xerxes.com

XERXES

December 3rd, 2004

Dear Mr. Corradino:
Corridino Group
200 South 5th
Suite 300 North
Louisville, KY 40202

In response to communications with Ted Stone on involvement in the Detroit River International Crossing Project, I understand that our firm, Xerxes Inc., could provide services in the computer graphics area. With the work defined as follows virtual reality simulations, it is my estimate that the cost would be $51,610 as shown on the attached sheet.

Obviously, this is an estimate and payment for our services will be on actual services rendered/costs incurred.

Sincerely yours,

Rory McMahan

B

Exhibit B

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

Name of Prime Consultant: Parsons Transportation Group

DIRECT LABOR

Classification	Classification	Person Hrs	x	Hourly Rate	=	Labor Costs
Regine Beauboeuf	Deputy Proj. Man.	4,200	x	$59.69		$250,698
Jere Hinkle	QA/QC Lead	944	x	$78.00		$73,632
Bruce L. Campbell	Lead Bridge	4,000	x	$49.00		$196,000
Steve Nicaise	Lead Rdway & Plaza	4,336	x	$53.00		$229,808
Joel Fitts	Microsimulation	1,760	x	$35.33		$62,181
Joseph Marson	Capacity Analysis	1,160	x	$48.72		$56,515
Steve Puttrich	Animation/Graphics	960	x	$48.33		$46,397
Ron Deverman	Indirect/Cumulative	1,200	x	$56.20		$67,440
William Olson	Roadway/Plaza	600	x	$56.84		$34,104
Yves Gauthier	Bridge Design	996	x	$89.91		$89,550
W. Hemming	Security	760	x	$51.40		$39,064
H. Zeng	Hydraulics	570	x	$37.02		$21,101
M. Karpuk	Hydraulics	650	x	$44.87		$29,166
G. Bonner	Tunnel	820	x	$81.01		$66,428
Craig Moore	GIS	880	x	$29.18		$25,678
Sr. Engineer	Rdway/Plaza/Bridge	440	x	$46.84		$20,610
Engineer	Rdway/Plaza/Bridge	1,140	x	$33.44		$38,122
Jr. Engineer	Rdway/Plaza/Bridge	5,540	x	$23.98		$132,849
CADD Technician	Rdway/Plaza/Bridge	4,460	x	$27.55		$122,873
Administrative	Administrative	1,700	x	$23.44		$39,848
	Total Hours	37116			**Total Labor**	**$1,642,064**

LABOR ESCALATION

	$1,642,064	x	6.13%	**Escalation**	**$100,659**

OVERHEAD

	$1,742,723	x	134.02%	**Total Overhead**	**$2,335,597**

FACILITIES COST OF CAPITAL

	$1,742,723		0.2655%	**Total F.C.C.**	**$4,627**

DIRECT EXPENSES	Unit Cost		Units		
Shipping	$25.00	x	144	Overnights	3,600
Air Travel	$600.00	x	108	Round. Trips	64,800
Rental Car	$85.00	x	800	Days	68,000
Motel	$65.00	x	400	Nights	26,000
Meals	$38.50	x	420	Days	16,170
Mileage	$0.375	x	60000	Miles	22,500
Exhibits	$0.50	x	50000		25,000
Printing - B&W	$0.10	x	50000	Sheets	5,000
Printing - Color	$0.34	x	50000	Sheets	17,000
Specific Hr Rate Contract - B. Touchstone	$100.00	x	880	Hours	88,000
Bruce Campbell moving expense					14,812
Steve Nicaise moving expense					22,022
				Total Direct Costs	**$372,903**

FIXED FEE

	$4,078,319	x	11.00%	**Total Fixed Fee**	**$448,615**
				TOTAL PARSONS COSTS	**$4,904,464**

PARSONS

10 South Riverside Plaza, Suite 400 • Chicago, Illinois 60606 • (312) 930-5100 • Fax: (312) 930-0018 • www.parsons.com

December 7, 2004

Mr. Joe C. Corradino, P.E.
The Corradino Group
First Trust Centre, Suite 300 North
200 S. Fifth Street
Louisville, KY 40202

Subject: **DETROIT RIVER INTERNATIONAL BORDER CROSSING STUDY**

Dear Mr. Corradino:

Parsons is pleased to submit this revised price proposal of $4,904,464, under separate cover, as a subconsultant to The Corradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign this staff to accomplish our assignments in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest of which we are aware.

Regards,

Robert F. Hull, P.E.
Senior Vice President

PARSONS

1133 Fifteenth Street, NW • Washington, DC 20005-2701 • (202) 775-3300 • Fax: (202) 775-3422 • www.parsons.com

December 7, 2004

To whom it may concern:

This letter is to certify the labor rates for the following employees:

- Steve Nicaise - $53.00/hr
- Bruce Campbell - $49.00/hr

If you need additional information, please contact me at 202-775-6034.

Sincerely,

Ximena Garcia

Ximena Garcia
Human Resources Representative
Road & Highway Division
Capital Programs East & Transportation Operation Sectors

PARSONS TRANSPORTATION GROUP

ASSIGNMENT ALLOTMENT AGREEMENT

NAME: Bruce Campbell EMPLOYEE NO. 01304 NEW HIRE ☐ ■ TRANSFER ☐

CURRENT OFFICE: Buffalo CURRENT LOCATION: Buffalo, NY NEW OFFICE: Southfield NEW LOCATION: Detroit, MI

FUNCTIONAL TITLE: Deputy Project Manager ASCE GRADE:

PAYGRADE CODE AND TITLE: DCO PAYGRADE:

REPORTING DATE AT NEW LOCATION: ASSIGNMENT: ☐ SHORT TERM ■ LONG TERM

STATUS: ☐ SINGLE ■ FAMILY

AUTHORIZED DEPENDENTS: Spouse

AUTHORIZED EXPENSE ALLOWANCES

TYPE	ITEMIZATION	MAXIMUM AMOUNT
TRAVEL	Househunting trip expenses Enroute travel costs Lodging expenses	$1,800.00 $121.50 $1,950.00
SHIPMENT/STORAGE HOUSEHOLD AND PERSONAL EFFECTS	Parsons will pay to move your household goods, based on actual costs.	$5,600.00
SETTLING IN ALLOWANCES	Settling allowance not to exceed 30 days @ $35/day for 2 adults	$2,100.00
SPECIAL ALLOWANCES	Taxes to be included as part of lump sum	$3,240.00

APPLICABLE POLICY: ☐ DCO ■ PROJECT Project Name $ 14,811.50 Total Estimated Expenses

JUSTIFICATION

Maximum Reimbursement Requested $ 14,811.50

COSTS REIMBURSABLE UNDER PROJECT NUMBER: BASED ON ACTUAL COSTS

RECOMMENDED BY: Ximena Garcia
Corporate Services Representative Date

APPROVED:
Regional Vice President/Corporate Staff Officer Date

APPROVED:
Director of Human Resources Date

APPROVED:
Vice President, Corporate Services (as required) Date

ACCEPTED:
Employee Date

NOTES:
(1) Payment will be processed upon receipt of properly prepared and fully documented expense report.

(2) Certain amounts paid are to be reported to the Internal Revenue Service on the employee's Form W-2, Wage and Tax Statement, as additional compensation paid and same are subject to FICA and income withholdings

(3) No payment will be made until a signed Relocation Agreement is on file.

Distribution: Accounting Human Resources Regional Corporate Services Administrator Employee

PARSONS TRANSPORTATION GROUP

ASSIGNMENT ALLOTMENT AGREEMENT

NAME Steve Nicaise EMPLOYEE NO. 36397 NEW HIRE ■ TRANSFER ☐

CURRENT OFFICE Buffalo CURRENT LOCATION Buffalo, NY NEW OFFICE Southfield NEW LOCATION Detroit, MI

FUNCTIONAL TITLE Project Manager ASCE GRADE

PAYGRADE CODE AND TITLE DCO PAYGRADE

REPORTING DATE AT NEW LOCATION: ASSIGNMENT: ☐ SHORT TERM ■ LONG TERM

STATUS: ☐ SINGLE ■ FAMILY

AUTHORIZED DEPENDENTS: Spouse and 3 children

AUTHORIZED EXPENSE ALLOWANCES

TYPE	ITEMIZATION	MAXIMUM AMOUNT
TRAVEL	Househunting trip expenses Enroute travel costs Lodging expenses	$1,800.00 $121.50 $1,950.00
SHIPMENT/STORAGE HOUSEHOLD AND PERSONAL EFFECTS	Parsons will pay to move your household goods, based on actual costs.	$9,000.00
SETTLING IN ALLOWANCES	Settling allowance not to exceed 30 days @ $35/day for 2 adults Settling allowance not to exceed 30 days @ $25/day for 3 children	$2,100.00 $2,250.00
SPECIAL ALLOWANCES	Taxes to be included as part of lump sum	$4,800.00

APPLICABLE POLICY: ☐ DCO ■ PROJECT

Project Name

$ 22,021.50
Total Estimated Expenses

JUSTIFICATION

Maximum Reimbursement Requested $ 22,021.50

COSTS REIMBURSABLE UNDER PROJECT NUMBER: BASED ON ACTUAL COSTS

RECOMMENDED BY: Ximena Garcia
Corporate Services Representative — Date

APPROVED:
Regional Vice President/Corporate Staff Officer — Date

APPROVED:
Director of Human Resources — Date

APPROVED:
Vice President, Corporate Services (as required) — Date

ACCEPTED:
Employee — Date

NOTES:
(1) Payment will be processed upon receipt of properly prepared and fully documented expense report.

(2) Certain amounts paid are to be reported to the Internal Revenue Service on the employee's Form W-2, Wage and Tax Statement, as additional compensation paid and same are subject to FICA and income withholdings

(3) No payment will be made until a signed Relocation Agreement is on file.

Distribution: Accounting Human Resources Regional Corporate Services Administrator Employee

Exhibit B

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

Name of Sub Consultant: al Chalabi Group

DIRECT LABOR

Name	Classification	Person Hours	x	Hourly Rate	=	Labor Costs
Margery al Chalabi	Economic Analysis	780	x	$148.36		$115,721
Suhail al Chalabi	Economic Analysis	1,066	x	$148.36		$158,152
Celines Velez	Support Staff	790	x	$45.75		$36,143
	Total Hours	2636			**Total Labor**	**$310,015**

LABOR ESCALATION

$310,015	x	0.00%	**Escalation**	**$0**

OVERHEAD

$310,015	x	0.00%	**Total Overhead**	**$0**

FACILITIES COST OF CAPITAL

$310,015	x	0.00%	**Total F.C.C.**	**$0**

DIRECT EXPENSES	Unit Cost		Units		
Shipping	$20.00	x	20	Overnights	$400
Auto Travel (incl. tolls)	$250.00	x	13	Round. Trips	$3,250
Motel	$65.00	x	13	Nights	$845
Meals	$38.50	x	13	Days	$501
Printing - Color	$3.00	x	200	In-house	$600
Data acquisitions (Detroit Industries)	$500.00	x	1		$500
Data acquisition (Canadian Industries)	$1,500.00	x	1		$1,500
				Total Direct Costs	**$ 7,596**

FIXED FEE

$310,015	x	0.00%	**Total Fixed Fee**	**$0**

TOTAL ACG COSTS $ 317,611

The al Chalabi Group, Ltd.

330 W. Diversey Parkway · Suite 1403 · Chicago, Illinois 60657-6202 · Tel. (773) 871-0900
718 Wilson Avenue · Beverly Shores, Indiana 46301-0232 · Tel. (219) 874-3707

MARGERY AL-CHALABI
President

December 6, 2004

Mr. Joe Corradino
The Corradino Group
First Trust Centre
Suite 300 North
200 South Fifth Street
Louisville, Kentucky 40202

Dear Mr. Corradino:

ACG: The al Chalabi Group, Ltd is pleased to submit its price proposal of $317,611, under separate cover, as a subconsultant to The Corradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign this staff to accomplish our assignments in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest of which we are aware.

Very truly yours,

Margery al Chalabi
MaC / cv

Encls.

Exhibit B

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

Name of Sub Consultant: Alfred Benesch & Company

DIRECT LABOR

Name	Classification	Person Hours	x	Hourly Rate	=	Labor Costs
Al Kaltenthaler, PE,SE	QA	640	x	$60.00		$38,400
Doug Strauss, PE	Lead Road Engineer	980	x	$44.20		$43,316
Hossam Abdou, PE,SE,PhD	QA	500	x	$53.00		$26,500
Aaron Wekenman, PE	Road Engineer	1400	x	$28.00		$39,200
Rachelle VanDeventer, EIT	Road Engineer	1260	x	$22.50		$28,350
Kevin Mullins, PE	Bridge/Road Eng.	1460	x	$29.40		$42,924
Muthiah Kasi, PE, SE	VP Workshop Facil.	406	x	$60.00		$24,360
	Total Hours	6646			**Total Labor**	**$243,050**

LABOR ESCALATION

	$243,050	x	6.13%	**Escalation**	**$14,899**

OVERHEAD

	$257,949	x	154.43%	**Total Overhead**	**$398,351**

FACILITIES COST OF CAPITAL

	$257,949	x	1.22%	**Total F.C.C.**	**$3,147**

DIRECT EXPENSES

	Unit Cost		Units		
Shipping	$25.00	x	60	Overnights	$1,500
Air Travel	$450.00	x	12	Round. Trips	$5,400
Rental Car	$100.00	x	16	Days	$1,600
Motel	$65.00	x	40	Nights	$2,600
Meals	$38.50	x	40	Days	$1,540
Room Rental/VP workshops	$10.00	x	200	Days	$2,000
Workshop food	$38.50	x	100	Person days	$3,850
Printing - B&W	$0.05	x	5000	In-house	$250
Printing - Color	$0.50	x	6000	In-house	$3,000
Supplies for remote office	$1.00	x	4000		$4,000
Mileage	$0.38	x	10800		$4,050
Computer	$12.50	x	1800		$22,500
				Total Direct Costs	**$52,290**

FIXED FEE

	$656,300	x	11.00%	**Total Fixed Fee**	**$72,193**

TOTAL BENESCH COSTS $ 783,929

benesch
alfred benesch & company
Engineers • Surveyors • Planners
222 N. Washington Square • Suite 200 • Lansing, MI 48933-1800
517-482-1682 • Fax: 517-482-7180 • www.benesch.com

December 3, 2004

Mr. Joseph Corradino
President
The Corradino Group
200 S. Fifth Street, Suite 300N
Louisville, KY 40202

Dear Mr. Corradino:

Alfred Benesch & Company is pleased to submit its price proposal of $783,929.00, under separate cover, as a subconsultant to The Corradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign this staff to accomplish our assignments in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest of which we are aware.

Sincerely,

Albert F. Kaltenthaler, PE
Vice President/Division Manager

AFK:lag

cc: Antoine Karam, Alfred Benesch & Co.
Doug Strauss, Alfred Benesch & Co.
Contract File

We have R. Beeuhoeuf's commitment that upon a change in the contract or amendment, our percentage will be increased. AFK 12/6/04

Exhibit B

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

Name of Sub Consultant: Commonwealth Cultural Resources Group

DIRECT LABOR

Name	Classification	Person Hrs	x	Hourly Rate	=	Labor Costs
D. J. Weir	Task Manager	1140		$ 31.00		$ 35,340
J. A. Robertson	QA/QC	436		$ 30.00		$ 13,080
C. S. Demter	Principal Investigator	1860		$ 20.50		$ 38,130
M. Hambacher	Artifact Analysis	140		$ 21.50		$ 3,010
S. Dunham	His. Archaeologist	570		$ 22.25		$ 12,683
K. Taylor	His. Archaeologist	1170		$ 16.75		$ 19,598
M. Jeakle	Laboratory Director	210		$ 14.75		$ 3,098
N. Demeter	Editor/Compliance	180		$ 20.00		$ 3,600
E. Robinson	Architectural His.	1005		$ 19.00		$ 19,095
M. Milton-Pung	Architectural His.	885		$ 16.75		$ 14,824
Staff	Asst. Archit. His.	1070		$ 15.00		$ 16,050
J. Montney	GIS/Graphics	720		$ 15.25		$ 10,980
C. White	Production	420		$ 15.00		$ 6,300
Staff	Field Crew	1560		$ 11.00		$ 17,160
	Total Hours	11366			**Total Labor**	**$212,946**

ABOR ESCALATION

$212,946	x	5.42%	**Escalation**	**$11,542**

OVERHEAD

$224,488	x	108.03%	**Total OH**	**$242,514**

FACILITIES COST OF CAPITAL

$224,488	x	0.00%	**Total F.C.C.**	**$0**

DIRECT EXPENSES

	Unit Cost		Units		
Shipping	$15.00	x	30	Overnights	$450
Rental Car	$90.00	x	347	Days	$31,230
Motel	$65.00	x	606	Nights	$39,390
Meals	$38.50	x	629	Days	$24,217
Printing - B&W	$0.10	x	55000	In-house	$5,500
Film	$35.00	x	150	Film	$5,250
Computer	$5.00	x	760	In-house	$3,800
Misc	$2,000	x	1	Misc	$2,000
Trench Restoration	$75	x	150	Trench	$11,250
Equipment Rental (Avg of 150 & 85 adjusted to 2006 $)	$130	x	990	Hour	$128,700
Deep Testing Consult. (see attached sheet)	$74,541	x	1		$74,541
Faunal/Floral Analysis	$3,000	x	1		$3,000
				Total Direct Costs	**$329,327**

FIXED FEE

$467,002	x	11.00%	**Fixed Fee**	**$51,370**

TOTAL CCRG COSTS **$847,700**

Geoarchaeological Budget for Phase I/II Work

			Units	Hours	Rate	Cost
Geoarchaeological Background and Site Selection Criteria						
Time	Analysis/Report Preparation			120	$55	$6,600
Phase I Deep Testing Fieldwork and Analysis						
Time	Field			210	$55	$11,550
	Analysis/Report Preparation			210	$55	$11,550
Expenses	Lodging	($103.50/Day @ $65 Lodging; $38.5 meals)	21		$103.50	$2,174
	Travel	($0.375/mile assume 2 trips)	4,500		$0.375	$1,688
	Misc	(bags/film/developing/parking/tolls/etc.)				$100
Phase II Geoarchaeology Fieldwork and Analysis						
Time	Field			120	$55	$6,600
	Analysis/Report Preparation			120	$55	$6,600
Expenses	Lodging	($103.50/Day @ $65 Lodging; $38.5 meals)	12		$103.50	$1,242
	Travel	($0.375/mile assume 3 trips)	4,500		$0.375	$1,688
	Misc	(bags/film/developing/parking/tolls/etc.)				$50
		Total (Hayes and Monaghan)				**$49,841**
Contractual Services (Supplied by CCRG)						
Backhoe/Excavator				190	$130	$24,700
		Total Costs				**$74,541**

COMMONWEALTH
CCRG
CULTURAL RESOURCES
GROUP, INC.

December 2, 2004
P01-1004

Mr. Joseph C. Corradino
The Corradino Group
200 South Fifth Street, STE 300 North
First Trust Centre
Louisville, Kentucky 40202

Dear Mr. Corradino:

Commonwealth Cultural Resources Group, Inc. (CCRG) is pleased to submit its price proposal of $847,700.00 under separate cover, as a Subconsultant to The Corradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign this staff to accomplish our assignments in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest of which we are aware.

Very truly yours,

Donald J. Weir, RPA
President

DJW

Main Office: 2530 Spring Arbor Road Jackson, Michigan 49203 • (517) 788-3550/Fax (517) 788-6594
New York Office: 2495 Main Street Room 448 Buffalo, New York 14214 • (716) 831-9003/Fax (716) 831-9003
Wisconsin Office: P.O. Box 1061 Minocqua, Wisconsin 54548 • (715) 358-5686/Fax (715) 358-6656
www.ccrginc.com

Estimate

COMMERCE CONSTRUCTION & LANDSCAPING, INC.

P. O. BOX 930098
WIXOM, MI 48393-0098

DATE	ESTIMATE #
12/3/2004	9327

NAME / ADDRESS

COMMONWEALTH CULTURAL RESOURCES GROUP
2530 SPRING ARBOR ROAD
JACKSON, MI 49203-3602

PROJECT

BRIDGE CROSSING ...

DESCRIPTION	QTY	COST	TOTAL
BRIDGE CROSSING EXCAVATION			
315 EXCAVATOR/OPERATOR BY THE HOUR	0	150.00	
420 BACKHOE/OPERATOR BY THE HOUR	0	85.00	0.00

PRICE IS ONLY GOOD FOR 90 DAYS

TOTAL $0.00

Hayes and Monaghan, Geoarchaeologists

Geoarchaeological and Geological Consultants

December 2, 2004

Mr. Ted Stone, Vice President,
The Corradino Group,
First Trust Centre, STE 300 North,
200 South Fifth Street,
Louisville, Kentucky 40202

Dear Mr. Corradino:

In response to communications with Ted Stone on involvement in the Detroit River International Crossing Project, I understand that our firm, Hayes and Monaghan, Geoarchaeologists, could provide services in the Detroit area. We will provide geological and geoarchaeological services in support of Cultural Resources Management (CRM) efforts. We estimate that the total cost for our participation is estimated at $74,541 and will entail three main phases of work. These phases and the approximate break down of costs are described below. Detailed cost estimates for the work phases are also attached in tabular form. To total budget figure represents a fixed, not to exceed cost estimate and is based on the scope of services outlined in our proposal. Billing will be on a time and material basis with a not to exceed figure of $74,541. Our services are based on an hourly rate ($55/hour), which will be fixed at these rates through the terms of the contract. We have budgeted perdiem and travel assuming available MDOT rates. All other direct expenses will be based on actual costs.

During the first phase of our participation in the project, we will provide background information on geological deposits, environmental background and landform development during the Holocene, regional stratigraphy, and depositional history of the project area. This information will aid in selecting three practical alternatives that will be investigated in greater detail for archaeological resources during Phase I and II archaeological investigations. It is my estimate that this first phase of work will cost approximately $6,600.

Second, once the Practical Alternatives are selected, we will provide deep testing services and consultations and undertake Phase I deep testing of these three locations to assess the potential for (or discover) buried historic and prehistoric archaeological deposits. This work will include complete subsurface testing using continuous, solid-earth coring and/or backhoe trenching testing methods as well as all necessary analysis and reporting. It is my estimate that the cost for this phase of work would be approximately $27,100 for our firm plus an additional $24,700 for equipment costs (coring and/or excavating equipment). These figures are based on certain assumptions discussed in our proposal and this phase of work represents the most guess work on our part. Specifically, we assume that adequate testing can be performed on the three Practical Alternatives using a maximum of 60 backhoe trenches. We further assume that about 300 total acres (100 acres for each of the Practical

INDIANA: 1326 PICKWICK PLACE, BLOOMINGTON, IN 47401 (812) 330-1323 (VOICE/FAX)
MICHIGAN: PO BOX 18, 217 WEST 5TH STREET, NORTHPORT, MICHIGAN 49670 (231) 386-7601 (VOICE/FAX)
SOUTHEAST: 125 BENNINGTON RD, CHARLOTTESVILLE, VA. 22901 VOICE/FAX (804) 295-3610
E-MAIL: Gmonaghan@GeoarchaeologyConsult.Com –OR– Drhayes@GeoarchaeologyConsult.Com
WEB: WWW.GeoarchaeologyConsult.Com

Alternatives) will require Phase I deep testing.

Finally, we will provide geological and geoarchaeological services during Phase II testing of archaeological sites within the three Practical Alternatives. These services will involve several site visits during excavation and will include such aspects as: accessing the integrity of the archaeological deposits, evaluating site taphonomy, developing a site depositional and developmental history based on not only the archaeological deposits that comprise the site, but also on the soils and sediments that under- and/or overlie it. We will also work directly with the archaeological research team to develop a detailed site archaeological stratigraphy, integrate the archaeological and natural stratigraphies, and provide advice about any analytical methods to study soils and sediments that may aid in understanding site formation, integrity, or function. We estimate that the costs for these services will be approximately $16,200.

Just to reiterate, the above (and attached) budget figures represent fixed cost, not to exceed figures based solely on the currently defined scope of work, which was also briefly outline above. I look forward to working with you on this project.

Sincerely yours,

G. William Monaghan, Ph.D.

Geoarchaeological Budget for Phase I/II Work

			Units	Hours	Rate	Cost
Geoarchaeological Background and Site Selection Criteria						
Time	Analysis/Report Preparation			120	$55	$6,600
Phase I Deep Testing Fieldwork and Analysis						
Time	Field			210	$55	$11,550
	Analysis/Report Preparation			210	$55	$11,550
Expenses	Lodging	($103.50/Day @ $65 Lodging; $38.5 meals)	21		$103.50	$2,174
	Travel	($0.375/mile assume 2 trips)	4,500		$0.38	$1,688
	Misc	(bags/film/developing/parking/tolls/etc.)				$100
Phase II Geoarchaeology Fieldwork and Analysis						
Time	Field			120	$55	$6,600
	Analysis/Report Preparation			120	$55	$6,600
Expenses	Lodging	($103.50/Day @ $65 Lodging; $38.5 meals)	12		$103.50	$1,242
	Travel	($0.375/mile assume 3 trips)	4,500		$0.38	$1,688
	Misc	(bags/film/developing/parking/tolls/etc.)				$50
		Total (Hayes and Monaghan)				$49,841
Contractual Services (Supplied by CCRG)						
Backhoe/Excavator				190	$130	$24,700
		Total Costs				$74,541

Exhibit B

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

Name of Sub Consultant: Hamilton Anderson Associates

DIRECT LABOR

Classification	Classification	Person Hours	x	Hourly Rate	=	Labor Costs
Rainy Hamilton	Architecture Man.	690		$ 58.00		$ 40,020.00
Doug Atkinson	Architecture Lead	788		$ 37.00		$ 29,156.00
Judie Veresuk	Planner	2420		$ 23.00		$ 55,660.00
Jeff Mason	Project Manager	500		$ 37.00		$ 18,500.00
Paul Weidl	Arch./Urban Design	280		$ 38.00		$ 10,640.00
David Tobar	Sr. Landscape Arch.	432		$ 37.00		$ 15,984.00
Amy Chesterton	LA / Ass't PM	1840		$ 28.00		$ 51,520.00
Amy Potter	Arch. / His. Pres.	264		$ 26.00		$ 6,864.00
Lori Singleton	Land. Arch. / Graphics	1000		$ 28.00		$ 28,000.00
Rick Bogaert	Sr. L. Arch. & QA/QC	252		$ 58.00		$ 14,616.00
K. Keery/T. Segee	Computer Support	372		$ 29.00		$ 10,788.00
	Total Hours	8838			**Total Labor**	**$ 281,748**

LABOR ESCALATION

$281,748	x	6.13%	**Escalation**	**$17,271**

OVERHEAD

$299,019	x	168.65%	**Total Overhead**	**$504,296**

FACILITIES COST OF CAPITAL

$299,019	x	0.73%	**Total F.C.C.**	**$2,180**

DIRECT EXPENSES

	Unit Cost	x	Units			
Shipping	$25.00		20	Overnights		$ 500
Special exhibits, graphics and photography	$5,000.00		1		0	$ 5,000
Tolls (round trips)	$8.00		50	Days		$ 400
Motel	$65.00		10	Nights		$ 650
Meals	$38.50		10	Days		$ 385
Printing - B&W	$1.00		2000	In-house		$ 2,000
Printing - Color	$2.00		1000	In-house		$ 2,000
Mileage	$0.375		4000	Miles		$ 1,500
Color plotting (24" x 36")	$42.00		400	Sheet		$ 16,800
Color plotting (30" x 42")	$65.00		300	Sheet		$ 19,500
				Total Direct Costs		**$ 48,735**

FIXED FEE

$803,315	x	11.00%	**Total Fixed Fee**	**$88,365**

TOTAL HAMILTON ANDERSONS COSTS $942,594

hamiltonanderson

December 3, 2004

Mr. Joe Corradino
% Mr. Ted Stone, Vice President
The Corradino Group
200 S. Fifth Street, Suite 300N
Louisville, KY 40202

Dear Mr. Corradino:

Hamilton Anderson Associates, Inc. (HAA) is pleased to submit its price proposal of $942,594, under separate cover, as a subconsultant to The Corradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign this staff to accomplish our assignments in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest of which we are aware.

Very truly yours,

Rainy Hamilton, Jr., AIA NOMA
President

Hamilton Anderson Associates
1435 Randolph Suite 200 Detroit, Michigan 48226 p 313 964 0270 f 313 964 0170
www.hamilton-anderson.com

Exhibit B

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

Name of Sub Consultant: NTH CONSULTANTS, LTD.

DIRECT LABOR

Name	Classification	Person Hours	x	Hourly Rate	=	Labor Costs
Fritz Klingler	Project Director	200	x	$ 50.00		$10,000
Joe Alberts	Project Manager	180	x	$ 42.00		$7,560
Mike Miller	Project Engineer	390	x	$ 27.00		$10,530
Staff Eng/Cadd	Staff Eng./CADD	624	x	$ 22.00		$13,728
Administrative	Administrative	105	x	$ 15.00		$1,575
	Total Hours	1,499			**Total Labor**	**$43,393**

LABOR ESCALATION					
	$43,393	x	6.13%	**Escalation**	**$2,660**
OVERHEAD					
	$46,053	x	188.00%	**Total Overhead**	**$86,580**
FACILITIES COST OF CAPITAL					
	$46,053	x	0.04%	**Total F.C.C.**	**$18**

DIRECT EXPENSES	Unit Cost	x	Units		
Fees	$1,100		1		1100
Mileage	$0.375		3500	Miles	1313
Copies	$0.22		10000	Pages	2200
FedX	$80		15	Overnights	1200
Digital Camera	$10		40	Days	400
Photo Developing	$1		500	Sheets	500
Field Radio Telephones	$10		80	Days	800
Drilling Subcontractor (see attached breakout)	$111,506		1		111506
Barge Rental (see attached breakout)	$80,000		1		80000
Equipment (see attached breakout)	$2,000		1		2000
Permits (Corps, US & Candian Coast Guard)	$6,600		1		6600
Lab Testing (see attached breakout)	$10,000		1		10000
				Total Direct Costs	**$ 217,619**

FIXED FEE					
	$132,633	x	11.00%	**Total Fixed Fee**	**$14,590**
				TOTAL NTH COSTS	**$ 364,859**

Drill Subcontractor					
Landside Mobilization (Rock Set-up, etc.)	$500	x	3	Sites	1500
Landside Soil Drilling (all inclusive)	$17.15	x	840	Feet	14406
Landside Rock Coring (all inclusive)	$55	x	120	Feet	6600
River Boring Mobilization (1.2 rig-days per site)	$3,000	x	3	Sites	9000
River Soil Drilling	$2,500	x	22	Days	55000
River Rock Coring	$2,500	x	10	Days	25000
					111506
Barge Rental					
Site Access	$3,200	x	3	Sites	9600
Borings	$2,200	x	32	Days	70400
					80000
Equipment					
Gas monitor	$40	x	45	Days	1800
Photo-ionization Meter (for landside borings)	$20	x	10	Days	200
					2000
Lab Testing					
Moisture-Density-Unconfined	$50	x	80	Tests	4000
Shelby Unconfined (sample procurement + test)	$90	x	20	Tests	1800
Atterburg Limits	$65	x	24	Tests	1560
Hydrometer	$80	x	18	Tests	1440
Unconfined Rock Strength	$100	x	12	Tests	1200
					10000

NTH Consultants, Ltd.

Infrastructure Engineering
and Environmental Services

480 Ford Field
2000 Brush Street
Detroit, MI 48226
313.237.3900
313.237.3909 Fax

Mr. Joseph Corradino
The Corradino Group
200 S. Fifth Street, Suite 300N
Louisville, KY 40202

December 3, 2004
P-2003090-D

Re: Proposal for Geotechnical Engineering Services
Detroit River International Crossing Project

Dear Mr. Corradino:

NTH Consultants is pleased to submit our fee proposal of $364,859, under separate cover, as a subconsultant to The Corradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign our staff to accomplish our assignments in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest of which we are aware.

Sincerely,

NTH Consultants, Ltd.

Joseph B. Alberts

Joseph B. Alberts, P.E.
Principal Engineer

Fritz J. Klingler, P.E.
Vice President

JBA/FJK/lh

S:\PROJ\2004\Proposals\p2003090d-fjk.doc

NTH Consultants, Ltd.

Infrastructure Engineering
and Environmental Services

480 Ford Field
2000 Brush Street
Detroit, MI 48226
313.237.3900
313.237.3909 Fax

Mr. Joseph Corradino
The Corradino Group
200 S. Fifth Street, Suite 300N
Louisville, KY 40202

December 3, 2004
Proposal No. P-2003090-D

RE: Geotechnical Services
Detroit/Windsor Transportation Corridor
Detroit, Michigan – Windsor, Ontario

Dear Mr. Corradino:

In response to communications with Mr. Ted Stone on involvement in the Detroit River International Crossing Project, I understand that our firm, NTH Consultants Ltd., could provide services in the geotechnical area for this project. Our proposed scope of services and associated fees are presented in the following proposal. The following sections provide our understanding of the project and the technical details for PPMS tasks 2320 and 2530.

PROJECT UNDERSTANDING

To provide additional capacity for the Detroit/Windsor international vehicular traffic, we understand construction of an additional border crossing is being considered by the Canada-US-Ontario-Michigan Border Transportation Partnership. Five locations are currently being studied for either a bridge or tunnel crossing.

- A new structure from the foot of Eureka Road in Wyandotte, Michigan, across the Detroit River and the southern tip of Fighting Island to Lasalle, Ontario.
- A new structure from the Zug Island area south of Downtown Detroit, across the Detroit River to the south part of Windsor, Ontario.
- Modification of the existing Railroad Tunnel beneath the Detroit River or construction of a new structure at the same location just south of Downtown Detroit, Michigan to Windsor, Ontario.
- A new structure adjacent to the existing Ambassador Bridge, which is just north of the existing railroad tunnel.
- A new structure from the foot of Conner Avenue in Detroit, Michigan across the Detroit River to the northern part of Windsor, Ontario.

We understand the final structure will probably provide three traffic lanes in each direction. Therefore if a bridge is selected, it will be slightly larger in width than the existing Ambassador Bridge. If a tunnel is selected, multiple bores on the order of 35 to 44 feet each would be required. Alternatively, the tunnel could potentially be constructed using a sunken tube type construction. In addition to the actual crossings, substantial construction will be required for each

of the approaches and to provide infrastructure to disperse the traffic to be carried by the structures.

TECHNICAL APPROACH

P/PMS Task 2330 – Collect EPE Geotechnical Data

The objective of this task will be to gather and evaluate existing geotechnical data in the area of the proposed river crossings. From a geotechnical perspective, we anticipate the main support structures will require substantial deep foundations if a bridge concept is selected. Surrounding infrastructure construction will be supported on relatively shallow foundations and/or deep foundations. Major geotechnical considerations will be the depth of suitable foundation bearing strata, groundwater issues during construction, suitable foundation construction methods, etc.

If a tunnel concept is selected, major considerations include the thickness of suitable soil layers, groundwater issues, required soil cover between the top of the tunnel and the river, available tunnel horizon above rock, etc. Based on the depth to competent bedrock, we anticipate tunnel construction in bedrock will probably be impractical due to the length of the approaches that would be required. However, given the relatively shallow rock surface depth in the southern most potential crossing, we will investigate the possibility of a tunnel extending into the rock for this route only.

Based on our extensive experience along the Detroit Riverfront, we anticipate geotechnical conditions in the study area will generally consist of fill over clay type overburden soils over the bedrock. We anticipate depth to bedrock will be on the order of 140 feet at the northern end of the study area and approximately 70 feet at the southern end of the study area. Bedrock surface elevations generally dip an additional 15 to 20 feet across the river bottom and then rise again on the far shore. Bedrock is anticipated to consist of Antrium Shale for the northern most crossing, and Dundee Limestone with some areas of Detroit River Dolomite for the central and southern crossings.

NTH Consultants, Ltd. has served Detroit, Michigan, and many clients nationally for over 30 years, providing construction related engineering services to a variety of private and public interests. We are a Detroit-Based firm with experience and knowledge of local construction requirements, as well as state-of-the-art engineering practices. Our team has worked in the Detroit underground construction arena for many years. As such, we are very familiar with the local subsurface conditions including soil, rock, groundwater and gas, and the difficulties and risks associated with construction in these environments. We have successfully dealt with many of the issues that have impeded other underground projects in the same ground conditions.

As noted in our previously submitted SOQ, NTH has extensive geotechnical experience along the Detroit Riverfront, including a 1992-1993 feasibility study for a new rail tunnel across the Detroit River, we are very familiar with the subsurface conditions and the various engineering challenges of tunnel or bridge construction across the river. We believe that this experience, together with our extensive knowledge of local subsurface conditions and construction practices will give the Project Design Team the insight, experience, and expertise to produce a high quality, efficient

product for this project. This experience will provide NTH with an excellent starting point for determining general conditions at each of the proposed crossings, and will allow us to help the Project Design Team establish the general feasibility of the various crossing alternatives.

For each of the currently proposed crossing corridors we will perform the following services under this PPMS task:

- Research historical geotechnical information within our files and our drilling subcontractor files including previous NTH projects and other construction project documentation within our possession.

- Review published subsurface literature along both the Detroit and Windsor Shoreline areas. We are aware of at least five published sources of relevant information for the proposed crossings, and we will research for additional publicly and privately available information.

- Contact and obtain available geotechnical data from municipal and state agencies, and authorities from both sides of the Detroit River such as MDOT and the Province of Ontario. In addition, we will meet with contacts at the University of Windsor to obtain further information.

- Compile, review, evaluate the gathered information, and prepare subsurface soil/rock profiles along each of the proposed crossings.

- Prepare a report presenting the above data and summarizing our findings for each crossing, including construction considerations and feasibility assessments for tunnel and bridge crossings.

- Provide approximate unit costs for various underground elements of both the bridge and tunnel concepts for use in comparing the crossing alternatives.

- Provide input for the conceptual construction schedule for the various routes and construction alternatives.

Task 3530 – Conduct Structure Foundation Investigation

The objective of this phase of study will be to evaluate the data presented in the preliminary geotechnical report; determine the extent of additional investigation that may be required to adequately define subsurface conditions at the remaining river crossing corridors under consideration, and conduct field investigation to provide geotechnical recommendations regarding foundations and construction for the selected structures. We anticipate that at this stage of the project, two to three of the crossing alternatives will have been eliminated from further consideration.

Depending on the results of the preliminary geotechnical investigation, additional geotechnical information will be required for the remaining sites to properly evaluate constructability issues.

As such, we have developed a Phase II scope of services for these sites, consisting of the following:

- Drill several additional test borings for each remaining crossing under consideration. Each of the borings will be advanced through the overburden soils and approximately 10 feet into bedrock. For each crossing, one or two borings will be drilled on each river bank and two borings will be drilled within the Detroit River. Each boring will be drilled by our drilling subcontractor under the full time technical supervision of our field engineer. A Canadian subcontractor will be utilized for the test borings on the Canadian side of the river. Our engineer will coordinate the test boring locations, direct field operations, coordinate utility clearance with the Miss-Dig system, determine the type of sampling required, classify subsoil strata, record groundwater levels during and after completion of drilling, and modify drilling procedures as necessary to adequately define subsoil conditions at the site. As part of the monitoring, our personnel will ensure that standardized drilling and sampling techniques are followed.

  In general, samples will be collected in accordance with the standard penetration test method (ASTM D1586) at 2.5-foot intervals within the upper 10 feet and at 5-foot intervals thereafter. Approximately six Shelby tube samples will be taken of the soft clay (ASTM D1587). Rock core samples will be obtained with NX wire-line techniques and the samples logged and photographed. At the completion of drilling operations, the boreholes will be backfilled with grout.

  The test borings within the river will be performed from a barge anchored to the river bottom with spuds. Permits will be obtained from the United States and Canada as required. Based on the anticipated drilling depths, we anticipate a total drilling footage on the order of 600 to 780 feet (including water depth) and 50 feet of rock coring at each crossing location. All borings will be grouted in their entirety.

  We will perform monitoring for toxic and explosive gas within the boreholes.

- We have assumed that other Project Team Members will provide the necessary site access permission for the land test borings on each side of the river. NTH will obtain the required permits. We have based this proposal on the assumption that the sites will be accessible with truck-mounted drilling equipment.

- We will perform laboratory testing on selected soil samples retrieved during our drilling program. In general, we will conduct tests on representative samples to define the engineering properties and applicable design parameters for the subsoil strata encountered. We anticipate testing will consist of determining natural moisture content, dry density, grain size distribution and unconfined compression strength of cohesive samples.

- At the completion of our investigation, we will provide a geotechnical engineering report. The report will include Logs of Test Boring, a test boring location plan, feasibility evaluations for the proposed crossing structures, be they bridge or tunnel, construction

considerations, risks, advantages and disadvantages of the particular site compared with the other alternatives, etc.

- We will evaluate approximate costs for the foundation elements of the bridge concept and tunnel elements for the tunnel concept. This will be a "concept level" cost estimate based on the design information available at the time. Likewise, we will develop conceptual schedule timelines for construction of underground elements of the various options.

- We will meet with the Project Team to discuss our findings and present our report.

Once a final site is determined, a more detailed geotechnical investigation will be required for the selected alternative. The proposed scope of services for this phase can only be determined once Phase I and II are completed and a final project alignment is determined. Generally, we anticipate Phase III will consist of the following:

- Test borings extending approximately 10 feet into bedrock at 500 to 750 feet on-center for a tunnel crossing or at the major foundation locations if a bridge is desired. Various additional borings will be required at ancillary facilities such as bridge approach elements, buildings, retaining walls, etc.

- Preparations of a detailed geotechnical report suitable for inclusion in bidding documents. The geotechnical report will be organized depending on the final structure selected. For a bridge, the report will include recommended foundation construction methods and design parameters, etc. For a tunnel, documentation of the tunnel envelope will be critical. The report for a tunnel will include recommended tunnel construction methods such as Tunnel Boring Machine requirements, shaft construction, tunnel liner, etc.

PROFESSIONAL FEES

We estimate our total fees to complete the above scope of services will be $364,859. We understand payment for our services will be on actual services rendered/costs incurred and may vary from our estimate. Our detailed fee estimate is as follows:

Direct Labor:

Fritz Klingler	Project Director	200 hours x $50.00/hr
Joseph Alberts	Project Manager	180 hours x $42.00/hr
Mike Miller	Project Engineer	390 hours x $27.00/hr
Staff Engineer	Staff/CADD	624 hours x $22.00/hr
Support	Administration	105 hours x $15.00/hr

Total Direct Labor		**$43,393**
Labor Escalation	@ 6.13% of Direct Labor	**$ 2,660**
Overhead	@ 188% of Direct Labor + Escalation	**$86,580**

Facilities Cost of Capital @ 0.04% of Direct Labor + Escalation $ 18

Direct Expenses

Fees	$1,100	x	1		$ 1,100
Mileage	$0.375	x	3,500	Miles	$ 1,313
Copies	$0.22	x	10,000	Pages	$ 2,200
FedX	$80	x	15	Overnights	$ 1,200
Digital Camera	$10	x	40	Days	$ 400
Photo Developing	$1	x	500	Sheets	$ 500
Field Radio Telephone	$10	x	80	Days	$ 800
Drilling Subcontractor	$111,506	x	1	(See Attached)	$111,506
Barge Rental	$ 80,000	x	1	(See Attached)	$ 80,000
Equipment					
Gas Monitor	$40	x	45	Days	$ 1,800
Photo-Ion Meter	$20	x	10	Days	$ 200
Permits	$6,600	x	1		$ 6,600
Lab Testing					
Mois./Den./Unconf.	$50	x	80	Tests	$ 4,000
Shelby Unconf.	$90	x	20	Tests	$ 1,800
Atterberg Limits	$65	x	24	Tests	$ 1,560
Hydrometer	$80	x	18	Tests	$ 1,440
Unconf. Rock	$100	x	12	Tests	$ 1,200

Total Direct Expenses **$217,619**

Fixed Fee @ 11% of Direct Labor + Escalation+Overhead **$ 14,590**

TOTAL NTH COSTS **$364,859**

Please note that our estimate for direct expenses is based on the following considerations:

- Fees for mileage, copies, digital camera, photo developing, field radios, gas monitor, photo-ionization meter, and all lab testing are based on our standard unit rates attached in our 2004 Fee and Rate Schedules.

- Fees costs are anticipated for inspection by the City of Detroit and Windsor on city owner property.

- We anticipate that the field work will require approximately 20 work days (including reconnaissance, setup, drilling, grouting, abandonment) for each of the river crossings, for a total of about 60 work/travel days. Based on an average daily round trip (including sample delivery to our Farmington Hills laboratory) of about 60 miles, we anticipate total mileage of about 3,500 miles.

- We expect to produce draft and final reports for the data research effort, as well as for each of the river crossing investigations. The research report is expected to contain

approximately 300 pages of text and data, and the river crossing reports are expected to contain approximately 150 pages of text and data each. This corresponds to approximately 1,500 pages per set of reports (draft and final), and based on 7 reports total, about 10,000 pages of copies.

- Photos consist of 40 days using a digital camera (rock core and sample photos) and 500 color photographs/copies. FedX costs are anticipated to consist of 15 overnight deliveries at $15 to $100 (depending on the weight of the samples/package, etc.). Telephone costs are for field radios (required for work in the river channel) for 80 days.

- Our drilling subcontractor will be American Drilling and Testing Company Inc. NTH Consultants has an ongoing relationship with American, and we receive discounted unit rates for drilling services. Based on over 20 years of experience with American, we are confident that the unit rates offered are competitive with any Michigan drilling firm. American Drilling meets NTH's quality standards and operates their businesses in accordance with NTH practices. Therefore, we feel confident that American will provide a good quality product for a competitive fee as well as ensure a good working relationship on the project team.

- Our barge will be supplied and operated by Ferris Marine Contracting. NTH Consultants has an ongoing relationship with Ferris, and we receive discounted unit rates for barge services. Based on over 10 years of experience with Ferris, we are confident that the unit rates offered are competitive with any Southeast Michigan barge rental firm. Ferris meets NTH's quality standards and operates their businesses in accordance with NTH practices. Therefore, we feel confident that Ferris will provide a good quality product for a competitive fee as well as ensure a good working relationship on the project team. For this project, a 60 foot barge is anticipated, along with a 40 foot tug boat, accompanying the barge at all times (as required by the US Coast Guard and the Army Corps of Engineers).

- Equipment rates are based on use of a gas meter for 45 days during drilling and a photo-ionization meter for 10 days during drilling.

- Permit expenses will be for permits from U.S. Army Corps of Engineers, U.S. and Canadian Coast Guard, etc. Costs are not established until time of permit approval and may be greater or less than that indicated. The costs shown are estimated based on NTH's experience on similar projects. The total charges by NTH to Corradino/MDOT for permits will be limited to the amount that is charged by the permitting agencies.

- Lab testing fees are established based on the anticipated tests and testing frequency. We anticipate a total of approximately 250 soil samples. Approximately 80 samples (about one third) are anticipated to be tested for moisture- density and unconfined compressive strength values, 24 samples (1 to 2 samples per boring) will be submitted for Atterberg Limits, and 18 samples (1 to 2 per boring) for hydrometer analysis. In addition, we anticipate unconfined compressive strength testing on 20 Shelby Tube samples (1 to 2 samples per boring), plus 12 unconfined rock tests (approximately one per boring).

We appreciate this opportunity to submit this proposal for your use in obtaining the authorization to proceed on this project. We look forward to joining your team and are ready and able to provide the necessary expertise in a cost-effective manner, and to contribute to the financial and technical success of this project. Please do not hesitate to call if we can be of further assistance.

Sincerely,

NTH Consulants, Ltd.

Joseph B. Alberts

Joseph B. Alberts, P.E.
Project Manger

Fritz J. Klingler, P.E.
Vice President

JBA/FJK/dp

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AMERICAN DRILLING & TESTING CO., INC.

4041 Martel ♦ P.O. Box 3059 ♦ Melvindale, Michigan 48122 ♦ (313) 389-5300
Fax (313) 389-5346 ♦ E-mail americandrill80@aol.com ♦ Web americandrilling.org

PROPOSAL

DATE	PROPOSAL
12/3/2004	04-120304

BILL TO

NTH Consultants, Ltd.
480 Ford Field
2000 Brush Street
Detroit, Michigan 48226
Attn: Joe Alberts

PROJECT

Geotechnical investigation
International Crossing
Southeast Michigan Area

PROJECT NO.	TERMS

DESCRIPTION	QTY	UNITS	RATE	AMOUNT
The Following is the Proposal for Drilling Services for an international crossing in the Detroit Michigan Area. Drilling Services: 3 sites, two land test borings on the American side, One land boring on the Canadian side, and two borings in the Detroit River. (River pricing is based upon borings being performed in spring, summer or early fall, winter adds a substantial risk). The borings will be advanced through the overburden soils, hardpan and 10 feet into bedrock. The following is our estimated fees:				
			Total	

AMERICAN DRILLING & TESTING CO., INC.

4041 Martel ♦ P.O. Box 3059 ♦ Melvindale, Michigan 48122 ♦ (313) 389-5300
Fax (313) 389-5346 ♦ E-mail americandrill80@aol.com ♦ Web americandrilling.org

PROPOSAL

DATE	PROPOSAL
12/3/2004	04-120304

BILL TO

NTH Consultants, Ltd.
480 Ford Field
2000 Brush Street
Detroit, Michigan 48226
Attn: Joe Alberts

PROJECT

Geotechnical investigation
International Crossing
Southeast Michigan Area

PROJECT NO.	TERMS

DESCRIPTION	QTY	UNITS	RATE	AMOUNT
Mobilization/De-mobilization of equipment to site (Land borings)	3	Flat Fees	500.00	1,500.00
Land borings soil drilling (Materials included)	840	L.F.	17.15	14,406.00
Land borings Rock coring (Materials included)	120	L.F.	55.00	6,600.00
Mobilization/De-mobilization to river borings	3	Flat Fees	3,000.00	9,000.00
Barge Soil drilling (Materials included)	22	Days	2,500.00	55,000.00
Barge Rock coring (Materials included)	10	Days	2,500.00	25,000.00
			Total	$111,506.00

Ferriss Marine Contracting, Inc.
14891 Rosemont Road • Detroit, Michigan 48223
Phone: (313) 841-0032 Yard
(313) 835-8279 Office
(313) 835-4071 Fax

December 3, 2004

NTH Consultants, LTD
480 Ford Field
2000 Brush Street
Detroit, Michigan 48226

NTH Detroit River International Crossing Project

Loading and transport of Barge - Three (3) sites
@ $3,200.00 per site

Barge and Tug rental - 10 hour days
32 days @ $2,200.00 per day

TOTAL: $ 80,000.00

Charles F. Ferriss
Charles F. Ferriss
President

NTH Consultants, Ltd.

Infrastructure Engineering
and Environmental Services

480 Ford Field
2000 Brush Street
Detroit, MI 48226
313.237.3900
313.237.3909 Fax

2004 FEE AND RATE SCHEDULE
EQUIPMENT USAGE

NTH Consultants, Ltd. will provide the following items of equipment for use on projects on which we are performing consulting services. The equipment will be charged to the project for the duration of its use on the project. In addition to personnel charges, the following rates will apply:

Geotechnical Equipment	
Frequency Analyzer/DAT Recorder/Low Frequency Accelerometers	$4,000/Project
Cross Hole Test Equipment	$300/Day
Blast Monitoring Seismograph	$80/Day + Paper
Vane Shear Drive	$40/Day
Digitilt Inclinometer	$50/Day
Power Auger Equipment	$50/Day
Groundwater Monitoring Equipment	
Water Level Chart Recording Equipment	$25/Day
Electric Data Logger with Transducer	$100/Day
Portable Computer	$30/Day
Pneumatic Piezometer Readout Control	$30/Day
Vibrating Wire Piezometer Readout Unit	$30/Day
Inertial Lift Pump	$12/Day + Tube
Submersible Sampling Pump	$80/Day
Jet Pump with Generator	$75/Day
Field Filtration Kit with Pump	$25/Day
Field Filters	$15/Each
Interface Probe	$40/Day
Water Level Recording Device	$15/Day
Turbidity Meter	$35/Day
Peristaltic Pump	$35/Day
Sediment Sampler	$15/Day
Environmental Monitoring Equipment	
Photoionization (HNu) Meter	$20/Day
Flame Ionization Detector (FID)	$150/Day
Explosive Gas Meter	$40/Day
Cyanide Meter	$40/Day
Tri/Quad-Gas Meter	$40/Day
Air Velocity Meter	$12/Day
Portable Air Sampling Pump	$60/Day
High-Volume Air Monitoring System	$100/Day
Portable Gas Chromatograph	$375/Day
Soil Vapor Extraction Pump with Generator	$260/Day
pH Meter	$42/Day
General Equipment/Expenses	
Project Mileage for Company Vehicles	$0.375/Mile
Printing and Reproduction	$0.22/Page
Digital Camera	$10/Day
Photo Printing/Developing	$1.00/Page
Cellular Phone/Field Radio (Field Projects)	$10/Day

Rental of Specialized Field, Laboratory, or Monitoring Equipment by NTH Consultants, Ltd. for use on any specific project will be charged at cost plus 15%.

NTH Consultants, Ltd.

Infrastructure Engineering
and Environmental Services

480 Ford Field
2000 Brush Street
Detroit, MI 48226
313.237.3900
313.237.3909 Fax

2004 FEE AND RATE SCHEDULE
LABORATORY TESTING

NTH Consultants, Ltd. will perform laboratory tests on soils, concrete, asphalt, steel, roofing, and other construction materials as required for specific projects. In addition to charges for engineering and technical review, these tests will be performed at the following rates:

Soils

Sieve Analysis (washed through No. 200 sieve) (ASTM D 422)	$50 each
Material Passing No. 200 sieve only	$30 each
Hydrometer Analysis (ASTM D 422)	$80 each
Atterberg Limits (ASTM D 4318)	$65 each
Specific Gravity (ASTM D 854)	$50 each
Water Content (ASTM D 2216)	$10 each
Dry Density	$10 each
Hand Pentrometer Test	$9 each
Unconfined Compressive Test (ASTM D 2166) Controlled Strain (Liner)	$30 each
Shelby (Including Sample Procurement)	$90 each
Shrinkage Limits (ASTM D 427)	$65 each
Consolidated-Undrained Triaxial Compressive Test (ASTM D 4767)	$200 each
Standard Proctor Compaction Test (ASTM D 698)	$120 each
Modified Proctor Compaction Test (ASTM D 1557)	$68 each
Unconfined Rock Strength	$100 each

Rental of Specialized Field, Laboratory, or Monitoring Equipment by NTH Consultants, Ltd. for use on any specific project will be charged at cost plus 15%.

Exhibit B

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

Name of Sub Consultant:	Northwest Consultants, Inc.

DIRECT LABOR

Name	Classification	Person Hours	x	Hourly Rate	=	Labor Costs
Jie Luo	Project Manager	350	x	$44.23		$15,481
Tong L. Luo	Sr. Project Engineer	620	x	$38.46		$23,845
Andrew Kilpatrick	Project Engineer	1,060	x	$29.81		$31,599
Gary Schmitt	Project Engineer	800	x	$27.88		$22,304
Andrew Ceifetz	Design Engineer	360	x	$21.15		$7,614
	Total Hours	3,190			**Total Labor**	**$100,842**

LABOR ESCALATION					
	$100,842	x	7.71%	**Escalation**	**$7,775**
OVERHEAD					
	$108,617	x	162.19%	**Total Overhead**	**$176,166**
FACILITIES COST OF CAPITAL					
	$108,617	x	0.00%	**Total F.C.C.**	**$0**
DIRECT EXPENSES	Unit Cost	x	Units		
erhead	$0.00	x	0 0		$0
				Total Direct Costs	**$ -**
FIXED FEE					
	$284,784	x	11.00%	**Total Fixed Fee**	**$31,326**

TOTAL NORTHWEST CONSULTANTS COSTS $ 316,110

NCI NORTHWEST CONSULTANTS, INC.
CIVIL - STRUCTURAL - ENVIRONMENTAL

3220 CENTRAL PARK WEST
TOLEDO, OHIO 43617
(419) 841-4704
FAX (419) 841-2979

December 3, 2004

Mr. Joe Corradino, President
The Corradino Group
200 S. Fifth St., Ste. 300N
Louisville, KY 40202

RE: DRIC – EPE WITH AN ENVIRONMENTAL IMPACT STATEMENT
CS 82900; JN 802330

Dear Mr. Corradino:

Northwest Consultants, Inc. is pleased to submit its price proposal of $316,110.00, under separate cover, as a subconsultant to The Cooradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign this staff to accomplish our assignments in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest of which we are aware.

Very truly yours,

Northwest Consultants, Inc.

Er-Li Ch'ang - PRES.

Ernest Er-Li Ch'ang, P.E.
President

EEC/hes

Exhibit B

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement
Name of Sub Consultant:	SOMAT	

DIRECT LABOR

Name	Classification	Person Hours	x	Hourly Rate	=	Labor Costs
Rich Anderson	QA/QC Engineer	72	x	$56.00		$4,032
G. Ramanujam	Project Manager	184	x	$54.00		$9,936
Moideen Mathari	Sr. Geotech Engr.	200	x	$33.50		$6,700
Jon Zaremski	Project Engineer	960	x	$29.00		$27,840
Kirit Patel	Field Engineer	660	x	$25.00		$16,500
Amanda O'Grady	Lab Technician	200	x	$13.00		$2,600
Suzanne Righetti	Clerical Assistance	156	x	$17.20		$2,683
	Total Hours	2,432			**Total Labor**	**$70,291**

LABOR ESCALATION

$70,291	x	8.22%	**Escalation**	**$5,778**

OVERHEAD

$76,069	x	170.00%	**Overhead**	**$129,318**

FACILITIES COST OF CAPITAL

$76,069	x	0.00%	**Total F.C.C.**	**$0**

DIRECT EXPENSES	Unit Cost	x	Units	
Geotechnical Fieldwork (see drilling cost sheet below)				$112,000
			Total Direct Costs	**$ 112,000**

FIXED FEE

$205,387	x	11.00%	**Fixed Fee**	**$22,593**

TOTAL SOMAT COSTS $ 339,979

Exhibit B - *Attachment*

Derivation of Cost Proposal

(PRE-CONSTRUCTION DESIGN SERVICES)

MDOT PROJECT NUMB	PROJECT DESCRIPTION:
CS 82900- JN 802330	Detroit River International Crossing Study

SUBCONSULTANT NAME:

SOMAT Engineering

DIRECT EXPENSES:

Staff/Field Engineer	80 hours @	$12.50	1,000.00
Drilling Equipment	4 ea @	$400.00	1,600.00
ATV Rental	15 days @	$300.00	4,500.00
Drilling of Geotechni	1250 feet @	$12.00	15,000.00
Drilling of Environme	750 feet @	$14.00	10,500.00
Grouting of borings	750 feet @	$5.50	4,125.00
Pavement Cores	80 cores @	$225.00	18,000.00
Drill crew downtime,	50 hours @	$160.00	8,000.00
Steam cleaning, dec	50 hours @	$150.00	7,500.00
Steamcleaner + gen	16 days @	$175.00	2,800.00
Freeway Traffic Con	3 days @	$1,800.00	5,400.00
Surface street traffic	28 days @	$800.00	22,400.00
Surface street flaggi	2 days @	$1,400.00	2,800.00
Mileage	1000 miles @	$0.375	375.00
Permit/Inspection fees - MDOT, county, city, Railroad (assumption)			5,000.00
SOMAT laboratory e	25.0 days @	$120.00	3,000.00
		Subtotal Direct Expenses $	112,000.00

Detroit River International Crossing
Detroit, Michgian
CS 82900 - JN 802330

Project Information:

Illustrative Alternative Evaluation Phase
Data collection
Data organization and review
Analyses and recommendations

Practical Alternative Evaluation Phase

Prep Work
Discuss practical alternative and prepare proposed soil boring plan for roadways
Coordinate with Border Transportation Partnership & obtain geotechnical information they may have
Obtain necessary permits from State, County, local governments, railroad etc. for geotechnical borings
Stake boring locations
Coordinate and obtain underground utility clearance at proposed boring locations
Coordinate & assist TCG obtain permits/permission for environmental work.

Fieldwork

Drill borings:	125	@	10	1250	geotechnical
	50	@	15	750	environmental check
		@		0	
	175			2000	

Grouting	750 feet	(only environmental borings)
ATV required	15 days	
Traffic Control	3 days	Freeway Ramp/Shoulder/Lane Closure
	28 days	Surface Street Lane Closure
	2 days	Surface Street lane closure w/flagging
Pavement Coring	80 locations	

Lab tests, logs, engineering, report

Estimate of Hours:

Illustrative Alt. Phas	QA/QC Engr	P.M.	Sr. Geotech	Proj Engr	F.E.	L. Tech.	Clerical	Total Hours
Data collection		8		60			12	
Data organization		8	24	60			40	
Analyses & report	16	16	40	120			24	
Meetings (four)	16	16						
QA/QC								
Subtotal	32	48	64	240	0	0	76	**460**

Practical Alt. Phase	QA/QC Engr	P.M.	Sr. Geo.	Proj Engr	F.E.	L. Tech.	Clerical	Total Hours
Prep Work		40	16	160	240			
Fieldwork		40		160	420			
Lab Testing			40			200		
Logs/Report	24	40	80	400			80	
Meetings (four)	16	16						
Subtotal	40	136	136	720	660	200	80	**1972**
	72	184	200	960	660	200	156	**2432**

TOTAL HOURS FOR PROJECT **2432**

Total QC Hours **72**

Corporate Offices
First National Building
660 Woodward Avenue, Suite 1243
Detroit, Michigan 48226
☎ : (313) 963-2721
Fax : (313) 963-2736

SOMAT ENGINEERING, INC.
GEOTECHNICAL • GEOENVIRONMENTAL • MATERIALS TESTING

December 3, 2004

Joe Corradino
The Corradino Group
200 S. Fifth Street, Ste. 300N
Louisville, KY 40202

VIA FACSIMILE
(502) 587-7221
and Regular Mail

RE: *Detroit River International Crossing Project*
CS 82900 – JN 802330

Dear Mr. Corradino:

SOMAT Engineering, Inc. is pleased to submit its price proposal of $339,979, under separate cover, as a subconsultant to The Corradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign this staff to accomplish our assignments in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest or which we are aware.

Very truly yours,

SOMAT Engineering, Inc.

Ramanujam T.

G. Ramanujam, P.E.
President

GR:kml

Corporate Offices
First National Building
660 Woodward Avenue, Suite 1243
Detroit, Michigan 48226
☎ : (313) 963-2721
Fax : (313) 963-2736

SOMAT ENGINEERING, INC.
GEOTECHNICAL • GEOENVIRONMENTAL • MATERIALS TESTING

December 6, 2004
PP04201TCG

Mr. Ted Stone
The Corradino Group
200 South Fifth Street, Suite 300N
Louisville, Kentucky 40202

Regarding: Quotation back-up for selected Direct Cost Items
DRIC Cost Proposal

Dear Mr. Stone:

Per your e-mail of December 2, 2004, we have attempted to obtain written quotations for the following direct cost items:

1. Geotechnical Drilling
2. Environmental Drilling
3. Pavement Cores
4. Surface Street Traffic Control

For the geotechnical and environmental drilling work, we have obtained quotes from American Drilling, DLZ and Mateco Drilling Company. For pavement coring, we have obtained quotes from Cougar Contracting, FMG and Mateco. For traffic control, we have obtained a quote from Highway Services. We have not been able to secure written quotes from other traffic control firms due to various reasons, including payment terms.

In our cost estimate, we had used drilling rates from American Drilling, pavement coring rates from FMG and traffic control rates from Highway Services because they provide the best value for SOMAT and the team.

We also considered the ability of these firms to accommodate late payment and extend credit to SOMAT while we wait to get paid. Our past experience on MDOT study projects (DIFT, I-75 EPE etc.) indicates SOMAT will get paid roughly five to six months after we send the invoice.

Please note that our cost estimate has not changed. We trust this satisfies your requirements at this time. Please call if you have any questions. Thank you.

Very truly yours,
SOMAT Engineering, Inc.

Ramanujam

G. Ramanujam, P.E.
Sr. Project Manager

Attachments

AMERICAN DRILLING & TESTING CO., INC.

4041 Martel ♦ P.O. Box 3059 ♦ Melvindale, Michigan 48122 ♦ (313) 389-5300
Fax (313) 389-5346 ♦ E-mail americandrill80@aol.com ♦ Web americandrilling.org

PROPOSAL

DATE	PROPOSAL
12/3/2004	04-120305

BILL TO

Somat Engineering, Inc.
First National Building
660 Woodward, Suite 1243
Detroit, Michigan 48226

PROJECT

Geotechnical Investigation
International Crossing
Detroit, Michigan

PROJECT NO.	TERMS

DESCRIPTION	QTY	UNITS	RATE	AMOUNT
Soil drilling - Geotechnical Borings including Sampling	1,250	L.F.	12.00	15,000.00
Drilling-Environmental borings including sampling	750	L.F.	14.00	10,500.00
Grouting	750	L.F.	5.50	4,125.00
Additional costs, if needed:				
Delays not caused by American Drilling		$160.00/hr		
SOMAT/DRIL DRILLING ①				
			Total	$29,625.00

DLZ

FACSIMILE TRANSMISSION COVER SHEET

Date: December 6, 2004
To: Mr. Moideen Mathari, P.E.
Org: SOMAT ENGINEERING, INC.
Phone: 734-946-4966
Fax: 734-946-1147

From: Jeff Snyder

Number of Pages Transmitted Including This Page: 1

If there is any difficulty encountered with this transmission, please call (614) 888-0040.

Project:
DLZ Project No.:

Subject: **Price Quotation**

Item	Quantity	Unit	Unit Rate	Amount
Drilling of Geotechnical Borings in Soil Including Sampling	1250	feet	$10.00	$12,500.00
Drilling of Environmental Borings Including Sampling*	750	feet	$15.00	$11,250.00
Grouting of Borings	750	feet	$ 6.00	$ 4,500.00

*Unit Rate does not include decon of equipment between borings, 55 gallon drums, or steam cleaner and generator.

SOMAT/DRIC
DRILLING (2)

ENGINEERS • ARCHITECTS • SCIENTISTS • PLANNERS • SURVEYORS

6121 HUNTLEY ROAD COLUMBUS, OHIO 43229-1003 PHONE: (614) 888-0040 FAX: (614) 888-6415

Corporate Offices
First National Building
660 Woodward Avenue, Suite 1243
Detroit, Michigan 48226
Phone: (313) 963-2721 Fax: (313) 963-2796

SOMAT ENGINEERING, INC.
GEOTECHNICAL * GEOENVIRONMENTAL * MATERIALS TESTING

FACSIMILE TRANSMITTAL

To:	Dale R. Elliott	Date:	12/03/2004
Company:	Mateco Drilling Co.	Project:	Detroit River International Crossing
Fax No.:	(616) 456 5784		
Copies:	(616) 863 6579	Re:	Drilling & Sampling

The following information is being transmitted by Facsimile from: Moideen Mathari

☐ Letter ☐ Memo ☐ Report ☐ Proposal ☐ Test Results ☒ Other

Number of pages transmitted including this page: 1

Please give us a quote for the following items. Use truck mounted drilling rig. We will be adding a lump sum of $400 per drilling rig as mobilization and demobilization. Please make sure that you fax the quote **by the end of today.**

Item	Quantity	Unit	Unit Rate	Amount
Drilling of Geotechnical Borings in Soil Including Sampling	1250	feet	$ 12.85	16,062.50
Drilling of Environmental Borings Including Sampling	750	feet	$ 12.85	9637.50
Grouting of Borings	750	feet	$ 8.00	6000.00

SOMAT/DRIC DRILLING (3)

If you have any questions please call me on my Cell Phone: (313) 304 8445.

IF YOU DO NOT RECEIVE LEGIBLE COPIES OF ALL PAGES, PLEASE CONTACT US AS SOON AS POSSIBLE.

Date: 12/03/2004 SOMAT Project No.: PP04201

FAX Operator: MM

Taylor Office: 26445 Northline Road, Taylor, Michigan 48180 – (734) 946 4966, Fax: (734) 946-1147

MATECO

MATECO Drilling Company

Corporate Office: 693 Plymouth NE, Grand Rapids, MI 49505
616.459.1090, FAX: 616.456.5704

Operations Office: 271 Rockford Park Drive, Rockford, MI 49341
800.960.3475, 616.951.6890, FAX: 616.863.6073

Environmental, Geotechnical, Horizontal Directional And Contracting Services—Since 1974

December 3, 2004

FILE COPY

via facsimile
313-963-2736

Mr. Moideen Mathari
Somat Engineering, Inc.
660 Woodward Avenue
Suite 1243
Detroit, MI 48226

Re: Additional Quotation to Proposal No. 6489-1104 and December 3, 2004 Facsimiles
Detroit River International Crossing

Dear Mr. Mathari:

MATECO Drilling Company is pleased to provide you with our quotation for the two facsimile requests we received today for the referenced project. This letter provides Somat Engineering with our assumptions to accompany our attached completed faxes. If you have any questions, please call us.

Assumptions for Geotechnical Borings

1. MATECO Drilling Company will take 4 splitspoon samples in the upper 10 feet and at 5- foot intervals thereafter at each location.
2. All site cleanup, moving between boring locations, etc. will be billed at our hourly rate as quoted in our Proposal No. 6489-1104. That rate is $150.00 per hour.

Assumptions for Environmental Borings

1. All site cleanup and associated activities will be billed at our hourly rate as quoted in our Proposal No. 6489-1104. That rate is $150.00 per hour.
2. The cost of drums will be an additional $35.00 per drum.
3. The cost of our Bobcat will be an additional $250.00 per day.
4. The cost of Decontamination equipment/steam cleaner will be an additional $100.00 per ONSITE day.

Assumption for Grouting of Borings

1. Our quoted rate on the completed facsimile includes all labor and materials.

Assumptions for the Pavement Coring

1. You informed us to assume 6" cores.
2. You informed us to assume a 12" maximum depth per core.
3. You informed us to assume a 1-hour delay due to traffic control issues.
4. You informed us to assume all work will be conducted during daytime hours.

We look forward to working with Somat Engineering on this important project.

Sincerely,
MATECO Drilling Company

Dale R. Elliott MJH

Dale R. Elliott
Attachments

SOMAT/DRIC DRILLING (3)

CORING (1)

Fmg CONCRETE CUTTING, INC.

8515 S. OLD U.S. 23 HWY.
BRIGHTON, MI 48114
(810) 227-3650 FAX (810) 227-1290

December 3, 2004

SOMAT ENGINEERING

ATTN: Moideen Mathari
REF: Detroit River International Crossing
FAX: 734/946-1147

Core Drill

(80) 6" Dia. x 9" – 10" Deep Holes in Slab @ $225.00 each = $18,000.00

Price is based on doing 1 – 2 holes per mobilization.

If you have any questions, please call.

Thank you,

Mark McIntosh (Mac)
Estimator

SOMAT / DRIC
CORING (2)

Corporate Offices
First National Building
660 Woodward Avenue, Suite 1243
Detroit, Michigan 48226
Phone: (313) 963-2721 Fax: (313) 963-2736

SOMAT ENGINEERING, INC.
GEOTECHNICAL * GEOENVIRONMENTAL * MATERIALS TESTING

FACSIMILE TRANSMITTAL

To:	Dale R. Elliott	Date:	12/03/2004
Company:	Mateco Drilling Co.	Project:	Detroit River International Crossing
Fax No.:	(616) 456 5784		
Copies:	(616) 863 6879	Re:	Pavement Coring

The following information is being transmitted by Facsimile from: Moideen Mathari

☐ Letter ☐ Memo ☐ Report ☐ Proposal ☐ Test Results ☒ Other

Number of pages transmitted including this page: 1

Please give us a quote for the following items. Please make sure that you fax the quote **by the end of today.**

Item	Quantity	Unit	Unit Rate	Amount
Pavement Coring	80	each	$265.00	$21,200.00
Total				

If you have any questions please call me on my Cell Phone: (313) 304 8445.

IF YOU DO NOT RECEIVE LEGIBLE COPIES OF ALL PAGES, PLEASE CONTACT US AS SOON AS POSSIBLE.

Date: 12/03/2004 SOMAT Project No.: PP04201

FAX Operator: MM

Taylor Office: 26445 Northline Road, Taylor, Michigan 48180 – (734) 946 4266, Fax: (734) 946-1147

G:\Engineer\Proposals\2004\PP04201 Detroit International River Crossing\Subcon Quotes\Mateco_Fax2.doc

SOMAT/DRIC CORING (3)

HIGHWAY SERVICE COMPANY, INC. 26401 HALL ROAD • WOODHAVEN, MICHIGAN 48183

MAIL: P.O. BOX 188 • FLAT ROCK, MICHIGAN 48134
AREA CODE (734) 675-1000
FAX: (734) 675-3877
A WBE COMPANY • EEO

Somat Engineering
First National Bldg.
660 Woodward Ave. Suite #1243
Detroit, Mich. 48226
Attn: Moideen Mathari

QUOTATION

12/3/04

Re: Traffic Control Pricing For Geo-Probe Operations

Moideen,
In response to your request for a general pricing schedule for surface street lane closures, we are pleased to provide you with the following work parameters and their related cost.

Weekday Lane Closure	$800.00
Weekend Workday Lane Closure	$1050.00

The above pricing is based upon a single Traffic Control Technician, with one vehicle, erecting the maximum amount of lane closures with a single compliment of lane closure devices, within a 9A.M.-3P.M.work window.

Jim McIver

Field Supt./ Highway Service Co. Inc.

SOMAT/DRIC
TRAFFIC CONTROL (1)

National Equipment Services, Inc.
2522 Burlingame Avenue, S.W.
Wyoming, MI 49509
Ph: 616.531.6825 Fax: 616.531.5699
www.nesrentals.com

12/06/04
Somat Engineering

To whom it may concern,

In regards to the Traffic Control quote requested for the project at the International Bridge in Wayne Co. In the past we have found it very difficult to service and maintain projects that far from our nearest branch. Theft has also become an issue for us on previous projects in similar geographic locations. At this time we have decided not to quote this specific project due to its location, and the difficulty we would have providing your company a good service.

Thank you for understanding.

Best regards,

M.B. Van Til

Marc B. Van Til
Operations Manager

SOMAT/DRIC
Traffic control / Sample for no quote

(21)

Exhibit B

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

Name of Sub Consultant: TBE Group (Michigan), Inc.

DIRECT LABOR

Name	Classification	Person Hours	x	Hourly Rate	=	Labor Costs
Jeff Sowers	SUE Project Manager	80	x	$43.36		$3,469
David Spangenberg	SUE Asst. Proj. Mgr.	40	x	$43.74		$1,750
R. Todd Watts	SUE Crew Supervisor	16	x	$18.54		$297
Brad Bos	SUE Technician	8	x	$13.07		$105
Kevin Cutshaw	CADD Technician	24	x	$16.50		$396
Samantha Durrett	Admin./Tech. Support	24	x	$12.50		$300
	Total Hours	192			**Total Labor**	**$6,316**

LABOR ESCALATION

	$6,316	x	6.13%	**Escalation**	**$387**

OVERHEAD

	$6,703	x	165.28%	**Total Overhead**	**$11,078**

FACILITIES COST OF CAPITAL

	$6,703	x	0.30%	**Total F.C.C.**	**$20**

DIRECT EXPENSES	Unit Cost	x	Units		
Mileage	$0.375	x	1440	Mile	$540
Meals	$38.50	x	75	Day	$2,888
Hotel	$65.00	x	40	Night	$2,600
Test Hole, 0 to 5 feet deep	$690.32	x	20	Each	$13,806
Test Hole, 5.01 to 10 feet deep	$1,035.48	x	15	Each	$15,532
Test Hole, 10.01 to 15 feet deep	$1,553.22	x	5	Each	$7,766
Utility Designating	$1.19	x	40000	Linear Feet	$47,600
Maintenance of Traffic	$248.66	x	5	Day	$1,243
Travel, Designating Vehicle (Heavy Equip)	$2.32	x	720	Mile	$1,670
Travel, Vacuum Excavation Vehicle	$2.86	x	720	Mile	$2,059
Mailings	$2.00	x	125	Each	$250
Copies	$0.20	x	5000	Each	$1,000
				Total Direct Costs	**$ 96,955**

FIXED FEE

	$17,781	x	11.00%	**Total Fixed Fee**	**$1,956**

TOTAL TBE COSTS $ 116,712

TBE Cost Breakout of Service Hours

Exhibit B *Attachment*

Rate Factor & Cost (per 8 hr. day)

Description of Service	Hr. Rate	Utility Designation		Hourly Utility Designation		Utility Locating		Hourly Utility Locating		Ground Penetrating Radar		Travel Time - Locating		Travel Time - Designating		Maintenance of Traffic	
Principal / Quality Control	$ 195.78	0.50	$ 97.89		$ -	0.25	$ 48.95		$ -	0.50	$ 97.89		$ -		$ -		$ -
Project Manager	$ 161.24	4.00	$ 644.96	4.00	$ 644.96	4.00	$ 644.96	4.00	$ 644.96	4.00	$ 644.96		$ -		$ -	0.25	$ 40.31
Professional Engineer	$ 140.24	1.00	$ 140.24		$ -	0.50	$ 70.12		$ -		$ -		$ -		$ -		$ -
CADD Technician	$ 72.53	2.00	$ 145.06	2.00	$ 145.06	1.00	$ 72.53	1.00	$ 72.53	2.00	$ 145.06		$ -		$ -		$ -
SUE Locating Supervisor	$ 70.80	8.00	$ 566.40	8.00	$ 566.40	8.00	$ 566.40	8.00	$ 566.40		$ -		$ -	1.00	$ 70.80	1.00	$ 70.80
SUE Locating Technician	$ 45.15	16.00	$ 722.40	16.00	$ 722.40	16.00	$ 722.40	16.00	$ 722.40		$ -	2.00	$ 90.30	1.00	$ 45.15	1.00	$ 45.15
Technical Support	$ 56.36	2.00	$ 112.72	2.00	$ 112.72	1.00	$ 56.36	1.00	$ 56.36	2.00	$ 112.72		$ -		$ -		$ -
GPR Specialist / Geologist	$ 94.43		$ -		$ -		$ -		$ -	12.00	$ 1,133.16		$ -		$ -		$ -
3-Man Survey Crew (Sub)			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Survey Project Manager (Sub)			$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
SUE Locating Manager	$ 89.52	4.00	$ 358.08	2.00	$ 179.04	1.00	$ 89.52	1.00	$ 89.52		$ -		$ -		$ -		$ -
Vacuum Excavation Vehicle & Equipment	$ 81.00		$ -		$ -	8.00	$ 648.00	8.00	$ 648.00		$ -	1.00	$ 81.00		$ -		$ -
Designating Vehicle & Equipment	$ 23.40	8.00	$ 187.20	8.00	$ 187.20	8.00	$ 187.20	8.00	$ 187.20		$ -		$ -	1.00	$ 23.40	1.00	$ 23.40
GPR Vehicle & Equipment	$ 70.00		$ -		$ -		$ -		$ -	8.00	$ 560.00		$ -		$ -		$ -
Advance Warning Sign & Cones	$60.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -	0.50	$ 30.00
Arrow Board, Deliver and Pickup	$39.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -	1.00	$ 39.00
TOTALS:																	
	(daily)		**$ 2,974.95**		**$ 2,557.78**		**$ 3,106.44**		**$ 2,987.37**		**$ 2,693.79**	hourly	**$ 171.30**	hourly	**$ 139.35**	daily	**$ 248.66**
		per LF	**$ 1.19**	per hr	**$ 319.72**	0 - 5 ft. (4.5 Tr	**$ 690.32**	per hour	**$ 373.42**			per mile	**$ 2.86**	per mile	**$ 2.32**		
						5 ft - 10 ft. (3 T	**$ 1,035.48**					based on 60 mph		based on 60 mph			
						10 ft. - 15 ft. (2	**$ 1,553.22**										
						Over 15 ft. (1.:	**$ 2,485.15**										
		Production based on 2500 LF/day															

TBE GROUP

December 3, 2004

The Corradino Group
200 S. Fifth Street
Suite 300N
Louisville, KY 40202

Re: Detroit River International Crossing

Dear Mr. Corradino:

TBE Group (Michigan) is pleased to submit its price proposal of $116,712 under separate cover, as a subconsultant to The Corradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign this staff to accomplish our assignment in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest of which we are aware.

Sincerely,

TBE Group (Michigan)

Jeff A. Sowers, PE
Director/Senior Project Manager

526 South Creyts Road, Suite C • Lansing, Michigan 48917
T: 517.886.4532 • F: 517.886.9182 • www.tbegroup.com

Exhibit B

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

Name of Sub Consultant: Wetland & Coastal Resources

DIRECT LABOR

Name	Classification	Person Hours	x	Hourly Rate	=	Labor Costs
M. Nurse	Project Manger	1,190	x	$47.00		$55,930
T. Bennett	QA/QC	165	x	$47.00		$7,755
S. Kogge	Wetlands	455	x	$47.00		$21,385
A. Snell	Fisheries	452	x	$21.65		$9,786
J. Fody	Ecologist	194	x	$16.00		$3,104
H. Harrington	Regulatory Spec.	210	x	$32.57		$6,840
C. Pitchford	Clerical	127	x	$15.00		$1,905
	Total Hours	2,793			**Total Labor**	**$106,705**

LABOR ESCALATION

$106,705	x	0.00%	**Escalation**	**$0**

OVERHEAD

$106,705	x	155.00%	**Total Overhead**	**$165,392**

FACILITIES COST OF CAPITAL

$106,705	x	0.00%	**Total F.C.C.**	**$0**

DIRECT EXPENSES	Unit Cost	x	Units	
Mileage	$0.375	x	7850 Miles	$2,944
Copies	$0.05	x	32000 Sheets	$1,600
Under water video/sonar	$16,500	x	4	$66,000
			Total Direct Costs	**$ 70,544**

FIXED FEE

$272,096	x	11.00%	**Total Fixed Fee**	**$29,931**

TOTAL WETLAND/COASTAL RESOURCES COSTS $ 372,571

Wetland and Coastal Resources

December 3, 2004

Joseph Corradino
The Corradino Group
200 S. Fifth Street, Suite 300N
Louisville, KY 40202

Dear Mr. Corradino:

Wetland and Coastal Resources, Inc. is pleased to submit its price proposal of $372,571.00, under separate cover, as a subconsultant to The Corradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign the staff necessary to accomplish our assignments in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest of which we are aware.

Very truly yours,

Michael B. Nurse, Principal
Wetland and Coastal Resources, Inc.

5801 W. Michigan Ave., Lansing, MI 48917 • Phone (517) 327-0970 • Fax (517) 327-2853

Exhibit B

Derivation of Cost Proposal

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement
Name of Sub Consultant:		WOOLPERT

DIRECT LABOR

Name	Classification	Person Hours	x	Hourly Rate	=	Labor Costs
L.Christenson	Project Director	906	x	$46.13		$41,794
G. Bilow	PManager Surveys	637	x	$43.07		$27,436
A. Shaman	Flight Technician	12	x	$22.34		$268
R. Gebhard	Pilot	5	x	$28.04		$126
D. Smith	Camera Operator	5	x	$17.04		$77
D.Keibler	Photo Lab & FilmQC	33	x	$17.26		$570
D. Bowman	Scanning	46	x	$17.26		$794
B. Dalrymple	Photogrammetrist	28	x	$39.78		$1,114
L. Reed	Aerial Triangulation Te	935	x	$24.19		$22,618
B. Foster	Stereo Compilation Te	935	x	$24.19		$22,618
R. Stirm	Stereo Compilation Te	874	x	$24.19		$21,142
B. Kuchar	Stereo Compilation Te	874	x	$24.19		$21,142
D. Joos	Digital Orthos	294	x	$24.19		$7,112
D. Tamino	Digital Orthos	294	x	$24.19		$7,112
M. Donohoo	Cartographer	98	x	$23.44		$2,297
M. Neinhuis	Cartography Tech.	490	x	$18.44		$9,036
	5 2-person Svy.	1,273	x	$38.17		$48,590
	5 3-person Svy.	64	x	$52.26		$3,345
R. Sickles	Survey Chief	494	x	$20.49		$10,122
S. Collingsworth	Clerical	305	x	$16.03		$4,889
J. Meyer	Cad Tech.	990	x	$13.31		$13,177
	Total Hours	9,591			**Total Labor**	**$265,377**

LABOR ESCALATION

	$265,377	x	3.50%	**Escalation**	**$9,288**

OVERHEAD

	$274,665	x	166.04%	**Total Overhead**	**$456,054**

FACILITIES COST OF CAPITAL

	$274,665	x	1.23%	**Total F.C.C.**	**$3,378**

DIRECT EXPENSES	Unit Cost	x	Units		
Shipping	25	x	20	Overnights	$500
Computer Usage	10	x	6950	Hours	$69,500
Computer Media	300	x	5	Hard Drives	$1,500
Aircraft	1000	x	3.5	Hours	$3,500
Aircraft & Camera	1500	x	1	Hours	$1,500
Helicopter	2000	x	5		$10,000
Helicopter Staging	7250	x	1		$7,250
Helicopter Film Expos.	596	x	0.906		$540
Motel	65	x	244	Days	$15,860
Meals	38.5	x	244	Days	$9,394
Photo Lab- Film/Processing/Printing	1557	x	1	In-house	$1,557
Travel Meetings	125	x	4	Days	$500
GPS Equipment Static	10	x	279	Hours	$2,790
GPS Equipment RTK	20	x	381	Hours	$7,620
Scanner	75	x	40	Hours	$3,000
Survey Truck	55	x	135	Days	$7,425
Boat & Hydro Equip.	250	x	18	Days	$4,500
Misc.Office & Field Supplies	250	x	5	Misc.	$1,250
Traffic Control	500	x	26	Days	$13,000
Shipping Heavy	100	x	15	Each	$1,500
				Total Direct Costs	**$ 162,686**

FIXED FEE

	$730,718	x	11.00%	**Total Fixed Fee**	**$80,379**

TOTAL WOOLPERT COSTS $ 977,162

December 6, 2004

Mr. Corradino
The Corradino Group
200 S. Fifth Street, Suite 300N
Louisville, KY 40202

WOOLPERT

WOOLPERT DESIGN LLP
2400 Science Park Way, Suite 110
Okemos, Michigan 48864-2560
517.349.2644
Fax: 517.349.2655
www.woolpert.com

RE: Michigan Department of Transportation- DIRC

Dear Mr. Corradino:

WOOLPERT DESIGN LLP is pleased to submit the attached price proposal of $977,162, as a subconsultant to The Corradino Group on the Detroit River International Crossing. In submitting this document, we acknowledge our willingness to participate in this assignment and are prepared to assign staff to accomplish project assignments in a timely manner.

We also advise you and the Michigan Department of Transportation that we have no conflicts of interest of which we are aware.

Please feel free to contact me with any additional questions at my direct line 517.349.2644 or email larry.christenson@woolpert.com.

Very truly yours,

WOOLPERT DESIGN LLP

Rex Cowden, CP
COO, Partner

Larry L. Christenson; PE, PS, CP
Associate

LLC/bh

RC&A **Richard Crouse and Associates, Inc.**

Quality Aerial Photographic Services

December 03, 2004

Quote#: M11417

Woolpert Design LLP
2400 Science Parkway

Okemos, MI 48864
Attn: Larry Christenson

Reference: Revised 12-05-04

Price Estimate	Price
Detroit, MI	
10 Lines , 596 Exposures, 83 Scale, 60% FOL, B/W	
Edited Negatives	
Spring 2006, two separate cooridors	
Detroit, MI Flight Cost	$17,790.00
Total	$17,790.00

Please refer to quote number M11417 when ordering.

—— Thank you ——

Terms: Net 30 days

Woolpert Design FAX 517-349-2655
467 Aviation Way • Frederick, Maryland 21701 • (301) 846-4865 • Fax (301) 846-4868

C

Exhibit C

Derivation of Cost
SUMMARY BY JOB NUMBER AND BY CATEGORY

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

DIRECT LABOR (with escalation)	Direct Labor Hours	Direct Labor Costs
Prime Consultant	50,178	$2,017,175
Subconsultants		
Parsons Transportation Group	37,116	$1,742,723
ACG: The al Chalabi Group, Ltd.	2,636	$310,015
Alfred Benesch & Company	6,646	$257,949
CCRG	11,366	$224,488
Hamilton Anderson Associates	8,838	$299,019
Northwest Consultants, Inc.	3,190	$108,617
NTH Consultants, Ltd.	1,499	$46,053
SOMAT Engineering, Inc.	2,432	$76,069
TBE Group, Inc.	192	$6,703
Wetland & Coastal Res., Inc.	2,793	$106,705
Woolpert Design, LLP	9,591	$274,665
Total Direct Labor	**136,477**	**$5,470,181**

OVERHEAD	Overhead Costs
Prime Consultant	$3,398,537
Subconsultants	
Parsons Transportation Group	$2,335,597
ACG: The al Chalabi Group, Ltd.	$0
Alfred Benesch & Company	$398,351
CCRG	$242,514
Hamilton Anderson Associates	$504,296
Northwest Consultants, Inc.	$176,166
NTH Consultants, Ltd.	$86,580
SOMAT Engineering, Inc.	$129,318
TBE Group, Inc.	$11,078
Wetland & Coastal Res., Inc.	$165,392
Woolpert Design, LLP	$456,054
Total Overhead	**$7,903,882**

FACILITIES COST OF CAPITAL	F.C.C. Costs
Prime Consultant	$6,336
Subconsultants	
Parsons Transportation Group	$4,627
ACG: The al Chalabi Group, Ltd.	$0
Alfred Benesch & Company	$3,147
CCRG	$0
Hamilton Anderson Associates	$2,180
Northwest Consultants, Inc.	$0
NTH Consultants, Ltd.	$18
SOMAT Engineering, Inc.	$0
TBE Group, Inc.	$20
Wetland & Coastal Res., Inc.	$0
Woolpert Design, LLP	$3,378
Total F.C.C. Costs	**$19,706**

DIRECT EXPENSES	Direct Costs
Prime Consultant	$400,251
Subconsultants	
Parsons Transportation Group	$372,903
ACG: The al Chalabi Group, Ltd.	$7,596
Alfred Benesch & Company	$52,290
CCRG	$329,327
Hamilton Anderson Associates	$48,735
Northwest Consultants, Inc.	$0
NTH Consultants, Ltd.	$217,619
SOMAT Engineering, Inc.	$112,000
TBE Group, Inc.	$96,955
Wetland & Coastal Res., Inc.	$70,544
Woolpert Design, LLP	$162,686
Total Direct Expenses	**$1,870,905**

FIXED FEE	Fixed Fee Costs
Prime Consultant	$595,728
Subconsultants	
Parsons Transportation Group	$448,615
ACG: The al Chalabi Group, Ltd.	$0
Alfred Benesch & Company	$72,193
CCRG	$51,370
Hamilton Anderson Associates	$88,365
Northwest Consultants, Inc.	$31,326
NTH Consultants, Ltd.	$14,590
SOMAT Engineering, Inc.	$22,593
TBE Group, Inc.	$1,956
Wetland & Coastal Res., Inc.	$29,931
Woolpert Design, LLP	$80,379
Total Fixed Fee	**$1,437,045**

TOTAL COSTS FOR THIS JOB	**$16,701,719**

D

Not Applicable

E

Exhibit E

Derivation of Cost Proposal
SUMMARY BY CONSULTANT

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

	Design Hours	Design Cost	Fixed Fee	DBE	% of Cost
THE CORRADINO GROUP	50178	$6,418,028	$595,728		38.4%
Parsons Transportation Group	37,116	$4,904,464	$448,615		29.4%
ACG: The al Chalabi Group, Ltd.	2,636	$317,611	$0	Y	1.9%
Alfred Benesch & Company	6,646	$783,929	$72,193		4.7%
CCRG	11,366	$847,700	$51,370		5.1%
Hamilton Anderson Associates	8,838	$942,594	$88,365	Y	5.6%
Northwest Consultants, Inc.	3,190	$316,110	$31,326	Y	1.9%
NTH Consultants, Ltd.	1,499	$364,859	$14,590		2.2%
SOMAT Engineering, Inc.	2,432	$339,979	$22,593	Y	2.0%
TBE Group, Inc.	192	$116,712	$1,956		0.7%
Wetland & Coastal Res., Inc.	2,793	$372,571	$29,931		2.2%
Woolpert Design, LLP	9,591	$977,162	$80,379		5.9%
TOTAL	**136,477**	**$16,701,719**	**$1,437,045**		**100.00%**
			DBE Percentage		**11.5%**

Note DBE % of Services is 12%

F

Exhibit F

Proposed Person Hours by PPMS Task

Name of Prime Consultant:	The Corradino Group	Date:	December 7, 2004
Control Section	MDOT Job #	Project Description	
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement	

Task Number	PPMS Task Description	Firm	Overall Proj. Manager	Surveyor	Professional Except QA/QC	QA/QC	CAD/Graphic/ Technical	Total by Task
1230/211M	Meetings/Communicaton	Total	1315	0	8988	1749	3520	15572
1230/211M		TCG	1,315	0	5360	1,013	2,760	10448
1230/211M		PTG	0	0	2084	616	760	3460
1230/211M		ACG	0	0	0	0	0	0
1230/211M		ABC	0	0	0	0	0	0
1230/211M		CCR	0	0	164	0	0	164
1230/211M		HAA	0	0	1,380	120	0	1500
1230/211M		NWC	0	0	0	0	0	0
1230/211M		NTH	0	0	0	0	0	0
1230/211M		SMT	0	0	0	0	0	0
1230/211M		TBE	0	0	0	0	0	0
1230/211M		WCR	0	0	0	0	0	0
1230/211M		WPT	0	0	0	0	0	0
2120	Traffic Report	Total	140	0	8551	808	240	9739
2120		TCG	140	0	5,726	753	160	6779
2120		PTG	0	0	2825	55	80	2960
2120		ACG	0	0	0	0	0	0
2120		ABC	0	0	0	0	0	0
2120		CCR	0	0	0	0	0	0
2120		HAA	0	0	0	0	0	0
2120		NWC	0	0	0	0	0	0
2120		NTH	0	0	0	0	0	0
2120		SMT	0	0	0	0	0	0
2120		TBE	0	0	0	0	0	0
2120		WCR	0	0	0	0	0	0
2120		WPT	0	0	0	0	0	0
2130	Job Justification	Total	42	0	308	21	0	371
2130		TCG	42	0	156	5	0	203
2130		PTG	0	0	152	16	0	168
2130		ACG	0	0	0	0	0	0
2130		ABC	0	0	0	0	0	0
2130		CCR	0	0	0	0	0	0
2130		HAA	0	0	0	0	0	0
2130		NWC	0	0	0	0	0	0
2130		NTH	0	0	0	0	0	0
2130		SMT	0	0	0	0	0	0
2130		TBE	0	0	0	0	0	0
2130		WCR	0	0	0	0	0	0
2130		WPT	0	0	0	0	0	0

Exhibit F

Proposed Person Hours by PPMS Task

Name of Prime Consultant:		The Corradino Group	Date:	December 7, 2004					
Control Section	MDOT Job #	Project Description							
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement							
2140	Illustrative Alternatives		Total	233	0	12485	2004	1332	16053
2140			TCG	233	0	4136	86	180	4635
2140			PTG	0	0	4127	1444	1140	6710
2140			ACG	0	0	396	0	0	396
2140			ABC	0	0	1700	400	0	2100
2140			CCR	0	0	720	34	0	754
2140			HAA	0	0	1208	40	0	1248
2140			NWC	0	0	140	0	0	140
2140			NTH	0	0	0	0	0	0
2140			SMT	0	0	0	0	0	0
2140			TBE	0	0	58	0	12	70
2140			WCR	0	0	0	0	0	0
2140			WPT	0	0	0	0	0	0
2160	Scoping Document		Total	240	0	1014	164	80	1498
2160			TCG	240	0	540	116	80	976
2160			PTG	0	0	176	40	0	216
2160			ACG	0	0	0	0	0	0
2160			ABC	0	0	0	0	0	0
2160			CCR	0	0	212	8	0	220
2160			HAA	0	0	86	0	0	86
2160			NWC	0	0	0	0	0	0
2160			NTH	0	0	0	0	0	0
2160			SMT	0	0	0	0	0	0
2160			TBE	0	0	0	0	0	0
2160			WCR	0	0	0	0	0	0
2160			WPT	0	0	0	0	0	0
2310	SEE Studies		Total	637	0	22414	557	2000	25608
2310			TCG	637	0	10740	71	360	11808
2310			PTG	0	0	1272	88	80	1440
2310			ACG	0	0	300	0	0	300
2310			ABC	0	0	0	0	0	0
2310			CCR	0	0	7218	298	1560	9076
2310			HAA	0	0	1180	40	0	1220
2310			NWC	0	0	0	0	0	0
2310			NTH	0	0	0	0	0	0
2310			SMT	0	0	0	0	0	0
2310			TBE	0	0	0	0	0	0
2310			WCR	0	0	1704	60	0	1764
2310			WPT	0	0	0	0	0	0

Exhibit F

Proposed Person Hours by PPMS Task

Name of Prime Consultant:		The Corradino Group	Date:	December 7, 2004				
Control Section	MDOT Job #	Project Description						
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement						
2320	Aerial Photography	Total	22	0	138	27	39	226
2320		TCG	22	0	16	2	0	40
2320		PTG	0	0	22	2	0	24
2320		ACG	0	0	0	0	0	0
2320		ABC	0	0	0	0	0	0
2320		CCR	0	0	0	0	0	0
2320		HAA	0	0	0	0	0	0
2320		NWC	0	0	0	0	0	0
2320		NTH	0	0	0	0	0	0
2320		SMT	0	0	0	0	0	0
2320		TBE	0	0	0	0	0	0
2320		WCR	0	0	0	0	0	0
2320		WPT	0	0	100	23	39	162
2330	Geotechnical Data	Total	23	0	2352	77	506	2958
2330		TCG	23	0	16	3	0	42
2330		PTG	0	0	142	2	0	144
2330		ACG	0	0	0	0	0	0
2330		ABC	0	0	0	0	0	0
2330		CCR	0	0	0	0	0	0
2330		HAA	0	0	0	0	0	0
2330		NWC	0	0	0	0	0	0
2330		NTH	0	0	190	0	150	340
2330		SMT	0	0	2004	72	356	2432
2330		TBE	0	0	0	0	0	0
2330		WCR	0	0	0	0	0	0
2330		WPT	0	0	0	0	0	0
2340	Practical Alternatives	Total	340	0	15076	2041	2338	19794
2340		TCG	340	0	2760	38	320	3458
2340		PTG	0	0	6,100	1,691	2000	9790
2340		ACG	0	0	820	0	0	820
2340		ABC	0	0	1540	280	0	1820
2340		CCR	0	0	164	0	0	164
2340		HAA	0	0	1176	32	0	1208
2340		NWC	0	0	2470	0	0	2470
2340		NTH	0	0	0	0	0	0
2340		SMT	0	0	0	0	0	0
2340		TBE	0	0	46	0	18	64
2340		WCR	0	0	0	0	0	0
2340		WPT	0	0	0	0	0	0

Exhibit F

Proposed Person Hours by PPMS Task

Name of Prime Consultant:		The Corradino Group	Date:	December 7, 2004					
Control Section	MDOT Job #	Project Description							
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement							
2360	Prepare DEIS	Total	237	0	4758	724	800	6519
2360		TCG	237	0	1,620	487	700	3044
2360		PTG	0	0	1,336	104	100	1540
2360		ACG	0	0	400	0	0	400
2360		ABC	0	0	0	0	0	0
2360		CCR	0	0	284	28	0	312
2360		HAA	0	0	424	0	0	424
2360		NWC	0	0	0	0	0	0
2360		NTH	0	0	0	0	0	0
2360		SMT	0	0	0	0	0	0
2360		TBE	0	0	0	0	0	0
2360		WCR	0	0	694	105	0	799
2360		WPT	0	0	0	0	0	0
2380	DEIS Availability/	Total	106	0	1624	116	260	2106
2380	Public Hearing	TCG	106	0	516	12	100	734
2380		PTG	0	0	316	24	160	500
2380		ACG	0	0	0	0	0	0
2380		ABC	0	0	0	0	0	0
2380		CCR	0	0	0	0	0	0
2380		HAA	0	0	792	80	0	872
2380		NWC	0	0	0	0	0	0
2380		NTH	0	0	0	0	0	0
2380		SMT	0	0	0	0	0	0
2380		TBE	0	0	0	0	0	0
2380		WCR	0	0	0	0	0	0
2380		WPT	0	0	0	0	0	0
2510	Recommended Alternative	Total	212	0	7826	424	1200	9662
2510		TCG	212	0	1900	24	100	2236
2510		PTG	0	0	2740	100	1100	3940
2510		ACG	0	0	660	0	0	660
2510		ABC	0	0	1286	260	0	1546
2510		CCR	0	0	0	0	0	0
2510		HAA	0	0	1240	40	0	1280
2510		NWC	0	0	0	0	0	0
2510		NTH	0	0	0	0	0	0
2510		SMT	0	0	0	0	0	0
2510		TBE	0	0	0	0	0	0
2510		WCR	0	0	0	0	0	0
2510		WPT	0	0	0	0	0	0

Exhibit F

Proposed Person Hours by PPMS Task

Name of Prime Consultant:		The Corradino Group	Date:	December 7, 2004				
Control Section	MDOT Job #	Project Description						
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement						
2525	Engineering Report	Total	86	0	3754	498	498	4836
2525		TCG	86	0	380	32	20	518
2525		PTG	0	0	1,774	266	460	2500
2525		ACG	0	0	0	0	0	0
2525		ABC	0	0	980	200	0	1180
2525		CCR	0	0	0	0	0	0
2525		HAA	0	0	0	0	0	0
2525		NWC	0	0	580	0	0	580
2525		NTH	0	0	0	0	0	0
2525		SMT	0	0	0	0	0	0
2525		TBE	0	0	40	0	18	58
2525		WCR	0	0	0	0	0	0
2525		WPT	0	0	0	0	0	0
2530	Prepare FEIS	Total	204	0	2870	604	660	4338
2530		TCG	204	0	1,260	412	460	2336
2530		PTG	0	0	856	144	200	1200
2530		ACG	0	0	60	0	0	60
2530		ABC	0	0	0	0	0	0
2530		CCR	0	0	304	28	0	332
2530		HAA	0	0	360	20	0	380
2530		NWC	0	0	0	0	0	0
2530		NTH	0	0	0	0	0	0
2530		SMT	0	0	0	0	0	0
2530		TBE	0	0	0	0	0	0
2530		WCR	0	0	30	0	0	30
2530		WPT	0	0	0	0	0	0
2550	Obtain Record of Decision	Total	77	0	448	59	28	612
2550		TCG	77	0	280	27	28	412
2550		PTG	0	0	168	32	0	200
2550		ACG	0	0	0	0	0	0
2550		ABC	0	0	0	0	0	0
2550		CCR	0	0	0	0	0	0
2550		HAA	0	0	0	0	0	0
2550		NWC	0	0	0	0	0	0
2550		NTH	0	0	0	0	0	0
2550		SMT	0	0	0	0	0	0
2550		TBE	0	0	0	0	0	0
2550		WCR	0	0	0	0	0	0
2550		WPT	0	0	0	0	0	0

Exhibit F

Proposed Person Hours by PPMS Task

Name of Prime Consultant:		The Corradino Group	Date:	December 7, 2004					
Control Section	MDOT Job #	Project Description							
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement							
2810	Conduct Initial Site Assess.	Total	22	0	1067	3	40	1132
2810		TCG	22	0	1000	2	40	1064
2810		PTG	0	0	67	1	0	68
2810		ACG	0	0	0	0	0	0
2810		ABC	0	0	0	0	0	0
2810		CCR	0	0	0	0	0	0
2810		HAA	0	0	0	0	0	0
2810		NWC	0	0	0	0	0	0
2810		NTH	0	0	0	0	0	0
2810		SMT	0	0	0	0	0	0
2810		TBE	0	0	0	0	0	0
2810		WCR	0	0	0	0	0	0
2810		WPT	0	0	0	0	0	0
2820	Conduct Prelim. Site Invest.	Total	42	0	707	6	40	795
2820		TCG	42	0	640	5	40	727
2820		PTG	0	0	67	1	0	68
2820		ACG	0	0	0	0	0	0
2820		ABC	0	0	0	0	0	0
2820		CCR	0	0	0	0	0	0
2820		HAA	0	0	0	0	0	0
2820		NWC	0	0	0	0	0	0
2820		NTH	0	0	0	0	0	0
2820		SMT	0	0	0	0	0	0
2820		TBE	0	0	0	0	0	0
2820		WCR	0	0	0	0	0	0
2820		WPT	0	0	0	0	0	0
3310	Aerial Topographic Mapping	Total	18	0	4961	778	610	6367
3310		TCG	18	0	12	2	0	32
3310		PTG	0	0	127	1	0	128
3310		ACG	0	0	0	0	0	0
3310		ABC	0	0	0	0	0	0
3310		CCR	0	0	0	0	0	0
3310		HAA	0	0	0	0	0	0
3310		NWC	0	0	0	0	0	0
3310		NTH	0	0	0	0	0	0
3310		SMT	0	0	0	0	0	0
3310		TBE	0	0	0	0	0	0
3310		WCR	0	0	0	0	0	0
3310		WPT	0	0	4822	775	610	6207

Exhibit F

Proposed Person Hours by PPMS Task

Name of Prime Consultant:		The Corradino Group	Date:	December 7, 2004				
Control Section	MDOT Job #	Project Description						
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement						
3320	Control Survey for Aerials	Total	18	155	12	47	670	902
3320		TCG	18	0	12	2	0	32
3320		PTG	0	0	0	0	0	0
3320		ACG	0	0	0	0	0	0
3320		ABC	0	0	0	0	0	0
3320		CCR	0	0	0	0	0	0
3320		HAA	0	0	0	0	0	0
3320		NWC	0	0	0	0	0	0
3320		NTH	0	0	0	0	0	0
3320		SMT	0	0	0	0	0	0
3320		TBE	0	0	0	0	0	0
3320		WCR	0	0	0	0	0	0
3320		WPT	0	155	0	45	670	870
3330	Design Survey	Total	18	167	139	28	575	927
3330		TCG	18	0	12	2	0	32
3330		PTG	0	0	127	1	0	128
3330		ACG	0	0	0	0	0	0
3330		ABC	0	0	0	0	0	0
3330		CCR	0	0	0	0	0	0
3330		HAA	0	0	0	0	0	0
3330		NWC	0	0	0	0	0	0
3330		NTH	0	0	0	0	0	0
3330		SMT	0	0	0	0	0	0
3330		TBE	0	0	0	0	0	0
3330		WCR	0	0	0	0	0	0
3330		WPT	0	167	0	25	575	767
3350	Hydraulics Survey	Total	18	206	139	25	836	1224
3350		TCG	18	0	12	2	0	32
3350		PTG	0	0	127	1	0	128
3350		ACG	0	0	0	0	0	0
3350		ABC	0	0	0	0	0	0
3350		CCR	0	0	0	0	0	0
3350		HAA	0	0	0	0	0	0
3350		NWC	0	0	0	0	0	0
3350		NTH	0	0	0	0	0	0
3350		SMT	0	0	0	0	0	0
3350		TBE	0	0	0	0	0	0
3350		WCR	0	0	0	0	0	0
3350		WPT	0	206	0	22	836	1064

Exhibit F

Proposed Person Hours by PPMS Task

Name of Prime Consultant:		The Corradino Group	Date:	December 7, 2004					
Control Section	MDOT Job #	Project Description							
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement							
4510	Right-of-way Survey	Total	18	98	155	12	342	625
4510		TCG	18	0	12	2	0	32
4510		PTG	0	0	143	1	0	144
4510		ACG	0	0	0	0	0	0
4510		ABC	0	0	0	0	0	0
4510		CCR	0	0	0	0	0	0
4510		HAA	0	0	0	0	0	0
4510		NWC	0	0	0	0	0	0
4510		NTH	0	0	0	0	0	0
4510		SMT	0	0	0	0	0	0
4510		TBE	0	0	0	0	0	0
4510		WCR	0	0	0	0	0	0
4510		WPT	0	98	0	9	342	449
3370	Structure Survey	Total	18	11	668	13	134	844
3370		TCG	18	0	12	2	0	32
3370		PTG	0	0	656	4	80	740
3370		ACG	0	0	0	0	0	0
3370		ABC	0	0	0	0	0	0
3370		CCR	0	0	0	0	0	0
3370		HAA	0	0	0	0	0	0
3370		NWC	0	0	0	0	0	0
3370		NTH	0	0	0	0	0	0
3370		SMT	0	0	0	0	0	0
3370		TBE	0	0	0	0	0	0
3370		WCR	0	0	0	0	0	0
3370		WPT	0	11	0	7	54	72
3520	Scour Analysis	Total	18	0	139	3	0	160
3520		TCG	18	0	12	2	0	32
3520		PTG	0	0	127	1	0	128
3520		ACG	0	0	0	0	0	0
3520		ABC	0	0	0	0	0	0
3520		CCR	0	0	0	0	0	0
3520		HAA	0	0	0	0	0	0
3520		NWC	0	0	0	0	0	0
3520		NTH	0	0	0	0	0	0
3520		SMT	0	0	0	0	0	0
3520		TBE	0	0	0	0	0	0
3520		WCR	0	0	0	0	0	0
3520		WPT	0	0	0	0	0	0

Exhibit F

Proposed Person Hours by PPMS Task

Name of Prime Consultant:		The Corradino Group	Date:	December 7, 2004					
Control Section	MDOT Job #	Project Description							
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement							
3530	Foundation Investigation	Total	18	0	742	4	579	1343
3530		TCG	18	0	12	2	0	32
3530		PTG	0	0	150	2	0	152
3530		ACG	0	0	0	0	0	0
3530		ABC	0	0	0	0	0	0
3530		CCR	0	0	0	0	0	0
3530		HAA	0	0	0	0	0	0
3530		NWC	0	0	0	0	0	0
3530		NTH	0	0	580	0	579	1159
3530		SMT	0	0	0	0	0	0
3530		TBE	0	0	0	0	0	0
3530		WCR	0	0	0	0	0	0
3530		WPT	0	0	0	0	0	0
3710	Required Mitigation	Total	128	0	1964	174	0	2266
3710		TCG	128	0	320	14	0	462
3710		PTG	0	0	520	120	0	640
3710		ACG	0	0	0	0	0	0
3710		ABC	0	0	0	0	0	0
3710		CCR	0	0	304	40	0	344
3710		HAA	0	0	620	0	0	620
3710		NWC	0	0	0	0	0	0
3710		NTH	0	0	0	0	0	0
3710		SMT	0	0	0	0	0	0
3710		TBE	0	0	0	0	0	0
3710		WCR	0	0	200	0	0	200
3710		WPT	0	0	0	0	0	0
Total Hours by Classification			4250	637	103298	10965	17327	136477

Exhibit F

Proposed Person Hours by PPMS Task

Name of Prime Consultant:		The Corradino Group	Date:	December 7, 2004
Control Section	MDOT Job #	Project Description		
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement		

Summary of Hours by Firms and by Job Classification

	Firm	Overall Proj. Manager	Surveyor	Professional Except QA/QC	QA/QC	CAD/Graphic/ Technical	Total by Task	Percent
The Corradino Group	TCG	4250	0	37462	3118	5348	50178	36.8%
Parsons Transportation Group	PTG	0	0	26200	4756	6160	37116	27.2%
ACG: The al Chalabi Group, Ltd.	**ACG**	0	0	2636	0	0	2636	1.9%
Alfred Benesch & Company	ABC	0	0	5506	1140	0	6646	4.9%
CCRG	CCR	0	0	9370	436	1560	11366	8.3%
Hamilton Anderson Associates	**HAA**	0	0	8466	372	0	8838	6.5%
Northwest Consultants, Inc.	**NWC**	0	0	3190	0	0	3190	2.3%
NTH Consultants, Ltd.	NTH	0	0	770	0	729	1499	1.1%
SOMAT Engineering, Inc.	**SMT**	0	0	2004	72	356	2432	1.8%
TBE Group, Inc.	TBE	0	0	144	0	48	192	0.1%
Wetland & Coastal Res., Inc.	WCR	0	0	2628	165	0	2793	2.0%
Woolpert Design, LLP	WPT	0	637	4922	906	3126	9591	7.0%
TOTALS		4250	637	103298	10965	17327	136477	100%

DBE = **12.5%**

G

Exhibit G

Proposed QA/QC Costs by Submittal

Name of Prime Consultant:	Corradino Group	Date:	December 7, 2004

Control Section	MDOT Job #	Project Description
CS 82900	JN 802330	DRIC - EPE with an Environmental Impact Statement

Project Deliverable: 211M Public Involvment Plan				
Name	Title	Hours	Rate	Total
Jere Hinkle	QA/QC Lead	40	$78.00	$3,120
R. Hamilton	Arch. Manager	120	$58.00	$6,960
L. Wolf	Editor	600	$22.06	$13,236
Joe Corradino	Project Manager	528	$76.45	$40,366
Regine Beaubeouf	Assist. PM	432	$59.69	$25,786
	Percent of task	5.2%	Labor sub-total	$89,468

Project Deliverable: 2120 Traffic Report				
Name	Title	Hours	Rate	Total
Jere Hinkle	QA/QC Lead	20	$78.00	$1,560
K. Kaltenbach	Lead Modeler	720	$73.45	$52,884
Joe Corradino	Project Manager	40	$76.45	$3,058
Regine Beaubeouf	Assist. PM	25	$59.69	$1,492
	Percent of task	5.0%	Labor sub-total	$58,994

Project Deliverable: 2140 Illustrative Alternatives Report				
Name	Title	Hours	Rate	Total
Jere Hinkle	QA/QC Lead	100	$78.00	$7,800
Al Kaltenthaler	QA/QC Engin. Lead	220	$60.00	$13,200
Abdou Hossam	QA/QC Engin.	180	$53.00	$9,540
J.A. Robertson	Cul. Resources QA/QC	34	$30.00	$1,020
Bruce Campbell	Lead Bridge	645	$49.00	$31,605
Steve Nicaise	Lead Rdway & Plaza	638	$53.00	$33,788
Joe Corradino	Project Manager	54	$76.45	$4,128
Regine Beaubeouf	Assist. PM	88	$59.69	$5,253
	Percent of task	6.0%	Labor sub-total	$106,334

Project Deliverable: 2160 Scoping Document				
Name	Title	Hours	Rate	Total
Jere Hinkle	QA/QC Lead	16	$78.00	$1,248
J.A. Robertson	Cul. Resources QA/QC	8	$30.00	$240
Ted Stone	Lead Environmental	100	$45.74	$4,574
Joe Corradino	Project Manager	48	$76.45	$3,670
Regine Beaubeouf	Assist. PM	16	$59.69	$955
	Percent of task	5.6%	Labor sub-total	$10,687

Project Deliverable: 2340 Practical Alternatives Report				
Name	Title	Hours	Rate	Total
Jere Hinkle	QA/QC Lead	200	$78.00	$15,600
Al Kaltenthaler	QA/QC Engin. Lead	160	$60.00	$9,600
Abdou Hossam	QA/QC Engin.	120	$53.00	$6,360
Bruce Campbell	Lead Bridge	720	$49.00	$35,280
Steve Nicaise	Lead Rdway & Plaza	683	$53.00	$36,173
Joe Corradino	Project Manager	64	$76.45	$4,893
Regine Beaubeouf	Assist. PM	120	$59.69	$7,163
	Percent of task	5.1%	Labor sub-total	$115,068

Project Deliverable: 2360 Draft Environmental Impact Report				
Name	Title	Hours	Rate	Total
Jere Hinkle	QA/QC Lead	80	$78.00	$6,240
J.A. Robertson	Cul. Resources QA/QC	28	$30.00	$840
T. Bennett	Wetland QA/QC	105	$47.00	$4,935
Ted Stone	Lead Environmental	400	$45.74	$18,296
Joe Corradino	Project Manager	90	$76.45	$6,881
Regine Beaubeouf	Assist. PM	16	$59.69	$955
	Percent of task	5.1%	Labor sub-total	$38,147

Project Deliverable: 2525 Engineering Report				
Name	Title	Hours	Rate	Total
Jere Hinkle	QA/QC Lead	80	$78.00	$6,240
Al Kaltenthaler	QA/QC Engin. Lead	120	$60.00	$7,200
Abdou Hossam	QA/QC Engin.	80	$53.00	$4,240
Bruce Campbell	Lead Bridge	50	$49.00	$2,450
Steve Nicaise	Lead Rdway & Plaza	50	$53.00	$2,650
Joe Corradino	Project Manager	20	$76.45	$1,529
Regine Beaubeouf	Assist. PM	96	$59.69	$5,730
	Percent of task	5.2%	Labor sub-total	$30,039

Project Deliverable: 2530 Final Environmental Impact Statement				
Name	Title	Hours	Rate	Total
Jere Hinkle	QA/QC Lead	120	$78.00	$9,360
J.A. Robertson	Cul. Resources QA/QC	28	$30.00	$840
Ted Stone	Lead Environmental	400	$45.74	$18,296
Joe Corradino	Project Manager	20	$76.45	$1,529
Regine Beaubeouf	Assist. PM	12	$59.69	$716
	Percent of task	6.0%	Labor sub-total	$30,741

Project Deliverable: 2550 Obtain Record of Decision				
Name	Title	Hours	Rate	Total
Jere Hinkle	QA/QC Lead	20	$78.00	$1,560
Joe Corradino	Project Manager	26	$76.45	$1,988
Regine Beaubeouf	Assist. PM	12	$59.69	$716
	Percent of task	5.0%	Labor sub-total	$4,264

Direct Labor - Corradino w/escalation		$29,858
Overhead Rate	168.48%	$50,305
Fee	11.0000%	$8,818
	Subtotal - Corradino	$88,981

Direct Labor - Parsons w/escalation		$106,392
Overhead Rate	134.02%	$142,586
Fee	11.0000%	$27,388
	Subtotal - Parsons	$276,366

Direct Labor - Alfred Benesch w/escalation		$53,214
Overhead Rate	154.43%	$82,178
Fee	11.0000%	$14,893
	Subtotal - Benesch	$150,284

Direct Labor - CCRG w/escalation		$3,099
Overhead Rate	108.03%	$3,348
Fee	11.0000%	$709
	Subtotal - CCRG	$7,157

Direct Labor - Wetland and Coastal w/escalation		$4,935
Overhead Rate	155.00%	$7,649
Fee	11.0000%	$1,384
	Subtotal - Wetland	$13,969

Grand Total	**$536,757**

H

SCOPE OF PROFESSIONAL PLANNING, ENVIRONMENTAL & ENGINEERING SERVICES
Detroit River International Crossing (DRIC) STUDY
CS 82900 - JN 802330
Wayne County, Michigan

I. STUDY DESCRIPTION

This study consists of all work related to the Route Planning and Environmental Impact Statement through the Record of Decision (ROD) for a new Detroit River International Crossing, including but not limited to the following:

A. Preparing needed documentation to receive approvals under the United States National Environmental Policy Act (NEPA).
B. Coordinate NEPA activities with the Canadian Environmental Assessment Act (CEAA) and the Ontario Environmental Assessment Act (OEAA).
C. Work shall conform to current MDOT, FHWA, and AASHTO practices, guidelines, policies, and standards. For a bridge or tunnel, the consultant shall also review Canadian practices, guidelines, policies and standards. The more rigorous or restricting standard will generally prevail when standards differ between nations.

II. STUDY LOCATION

The study is located within the geographic area of Wayne County, and the cities of Detroit, Ecorse, River Rouge and Wyandotte, Michigan. The study limits extend from Belle Isle on the North, to the I-94 corridor on the West, to Grosse Isle on the South, to the Canadian border in the Detroit River. See Exhibit 5.1, in Appendix A for a map.

III. BACKGROUND INFORMATION

A. Overview

The Detroit River International Crossing Study is a bi-national effort to complete the environmental study processes for the United States, Michigan, Canada and Ontario governments. The study will identify solutions that support the region, state, provincial and national economies while addressing civil and national security needs of the busiest trade corridor between Canada and the United States.

The value of trade between Detroit, Michigan and Windsor, Ontario amounts to approximately $146 billion ($US) each year. The Detroit River separates the two countries with border crossings including the Ambassador Bridge, the Detroit – Windsor Tunnel, the Detroit River Tunnel, and the Detroit-Windsor Truck Ferry. These multi-modal transportation links provide the connections for freight and passenger movements between the two countries. The study will consider

transportation alternatives that improve the border crossing facilities, operations, and connections to meet existing and future mobility and security needs.

The Border Transportation Partnership (the Partnership) was formed to comprehensively assess mobility needs. This collaborative effort includes members from the following agencies:

1. Transport Canada (TC)
2. Ontario Ministry of Transportation (MTO)
3. Federal Highway Administration (FHWA)
4. Michigan Department of Transportation (MDOT)

The Partnership, with assistance from other agencies, is pursuing a bi-national transportation study that honors the legal and procedural requirements for environmental and related documentation of each country. A Working Group supports the Partnership. A list of Working Group members is in Appendix B.

The main objectives of this study are to:

1. Provide sufficient border crossing capacity to meet the long-term (30 year) demand
2. Improve the system connectivity to enhance the seamless flow of people and goods
3. Improve the operations and processing capability of the border crossing system
4. Provide increased security by providing reasonable options in the event of incidents, maintenance, congestion, or other disruptions

The Partnership provides a central and coordinated opportunity for improved information flow between the border crossing facilities and transportation agencies. It also demonstrates a bi-national, regional, and local commitment to improved transportation system integration and connectivity. The study will include public and agency coordination, data collection, development and evaluation of alternatives, environmental analysis and documentation, and conceptual level of design leading to a mutually acceptable alternative.

The Partnership completed the Planning Need and Feasibility Study in February 2004. The findings and analysis of the Planning Need and Feasibility Study will serve as the foundation for the environmental study.

The Partnership has convened a separate Governance Group to study governance options (who owns, operates and maintains a new facility). The Governance Group's work will support this study.

There is an urgency to move forward efficiently and expeditiously due to the importance of the crossing. Each crossing analyzed in the study showed at least

one breakdown in the critical linkage in cross-border travel within the next five years. Public sentiment at numerous meetings during the Planning Need and Feasibility Study and through the press expressed impatience with the decision-making process.

The Partnership agrees that this study will use the Metric System of measurement using hard conversions. Metric references will always have English conversions in parentheses.

B. Other sources of background information:

1. Notice of Intent (March 24, 2003) (See Appendix C)

2. Refer to the Study Website at www.partnershipborderstudy.com for the following:

   a. Planning/Need & Feasibility Study Report- January 2004
   b. Canadian Terms of Reference
   c. Strategic and Geographic Area Overview Working Paper- January 2004
   d. Draft Purpose and Need Statement
   e. Travel Demand Analysis Process Working Paper- January 2004
   f. Existing and Future Travel Demand Working Paper- January 2004
   g. Transportation Problems and Opportunities Report- January 2004
   h. Feasible Transportation Alternatives Working Paper - January 2004
   i. January 2004 – Economic Impact Final Report
   j. January 2004 – Environmental Overview Report

3. The following information can be found on an attached CD:
   a. Transportation Planning /Need and Feasibility Summary Report- February 2004
   b. Air Quality Impact Assessment Methodology- March 2004
   c. Assessment Report- July 2004
   d. Draft Border Processing WP- August 2004
   e. Example Work Breakdown Structure (WBS)

4. The Working Group (See Appendix D)

IV. GENERAL SEQUENCE OF ACTIVITIES

A. Study kick-off and team building

B. Develop and send out early coordination materials.

C. Develop plans to work with the federal, state, and local regulatory agencies

D. Establish and maintain list of commenting and cooperating agencies concerns & issues

E. Assist in creating partnering agreements with cooperating and commenting resource agencies (Negotiated Timeframes)

F. Establish preliminary evaluation criteria with input from stakeholders, working group, other advisory groups, and Steering Committee

G. Plan and conduct agency and public scoping meetings

H. Finalize partnering & negotiated timeframe agreements

I. Conduct corridor/system level/constraints analysis within study area including data collection

J. Refine evaluation criteria and help select Illustrative Alternatives

K. Continue to collect data on Illustrative Alternatives

L. Refine evaluation criteria and help select Practical Alternatives

M. Evaluate Practical Alternatives and continue data collection

N. Prepare DRAFT EIS

O. Plan and hold public hearing

P. Address & incorporate public hearing comments into the study record

Q. Assist in determining Recommended Alternative

R. Prepare Final FEIS

S. Prepare Engineering Report (ER) on Recommended Alternative

T. Prepare Access Justification Report (AJR)

U. Assist with preparation of Memorandum of Understanding (MOU) on Implementation (Ownership, Operation, and Control)

V. Provide support material to incorporate DRIC in Long Range Plan (LRP)

W. Provide support material to incorporate DRIC's next phase into State Transportation Improvement Program (STIP)

X. Complete Final Environmental Impact Statement (FEIS)

Y. Prepare Record of Decision (ROD)

Z. Assist with finalizing implementation agreement (Ownership, Operation, and Control)

V. STUDY SCHEDULE

The scheduled completion date for this study is December, 2007. The Consultant shall use the following tasks to prepare the proposed implementation schedule as required in the Guidelines for the Preparation of Responses on Assigned Design Services Contracts. These dates shall be used in preparing the Consultant's Monthly Progress Reports. The consultant will also provide updated schedule information to the Project Manager on an as needed basis. The schedule should be provided in a MS-Project (or equivalent) format.

Draft Steering Committee Decision-Making Schedule:

Decision	Timeframe (approximate)
Project Purpose and Need	2nd Quarter 2005
Study Area	2nd Quarter 2005
Illustrative Alternatives and Evaluation Criteria	2nd Quarter 2005
Refinement of Illustrative Alternatives	4th Quarter 2005
Selection of Practical Alternatives	2nd Quarter 2006
Evaluation of Practical Alternatives	4th Quarter 2006
Selection of Technically Recommended Alternative	2nd Quarter 2007
Refinement of Design and Mitigation	3rd Quarter 2007
Submit Final Documents	4th Quarter 2007

Draft P/PMS Task List:

Task #	Description
1220	Verification & Initiation of EPE Activities
121M	PPRB Concurrence
1230	Prepare For Public Information Meeting
211M	Public Information Meeting
2120	Prepare Traffic Analysis Report
2130	Prepare Job Justification
213M	Concurrence by Regulatory Agencies of the Purpose of/Need for the Proposed Project
2140	Develop & Review Illustrative Alternatives
2160	Develop & Review EIS Scoping Document

2310	Conduct Technical SEE Studies
231M	Draft Submission Approved by FHWA
2320	Conduct Aerial Photography (See Appendix E2)
232M	Public Hearing
2330	Collect EPE Geotechnical Data
2340	Develop & Review Practical Alternatives
234M	Concurrence by Regulatory Agencies of the Alternatives for Detailed Study
2360	Prepare & Review DEIS
2380	Circulate DEIS
250M	Concurrence by Regulatory Agencies of the Recommended Alternative
2510	Determine & Review Recommended Alternatives
251M	Department Approval of Recommended Alternatives
2525	Prepare & Review Engineering Report
252M	Final Submission Approved by FHWA
2530	Prepare & Review ROD
2550	Obtain ROD
2810	Conduct Initial Site Assessment (ISA) for Contamination
2820	Conduct Preliminary Site Investigation (PSI) for Contamination
3310	Prepare Aerial Topographic Mapping (See Appendix E1 & E2)
3320	Conduct Photogrammetric Control Survey (See Appendix E2)
3330	Conduct Design Survey (See Appendix E1 & E2)
3350	Conduct Hydraulics Survey (See Appendix E1 & E2)
4510	Conduct ROW Survey (See Appendix E1 & E2)
3370	Prepare Structure Study
3520	Conduct Hydraulic/Hydrologic and Scour Analysis
3530	Conduct Structure Foundation Investigation
3710	Develop Required Mitigation

The consultant is responsible for maintaining all schedule information.

VI. PAYMENT SCHEDULE

Compensation for this Scope of Services shall be on an actual cost plus fixed fee basis.

VII. MONTHLY PROGRESS REPORT

On the first of each month, the Consultant shall submit a monthly study progress report to the MDOT Project Manager. The monthly progress report shall follow the example in Appendix F.

VIII. PRE-QUALIFICATION AND SUBCONTRACTING OF CONTRACT WORK

Any task(s) for which the Consultant is not pre-qualified must be completed by a Subcontractor that is pre-qualified for that task(s). Any questions regarding prequalification should be directed to Phil Brooks, Prequalification Manager, at (517)335-2514.

MDOT's prequalification is not a guarantee, or warranty of, the subcontractor's ability to perform or complete the work subcontracted. The Consultant remains fully responsible to MDOT for completion of the work according to the contract as if no portion of it had been subcontracted.

All subcontractor communications with MDOT shall be through the Consultant to the MDOT Project Manager. This requirement may be waived if a written communication plan is approved by the MDOT Project Manager.

MDOT may direct the immediate removal of any subcontractor working in violation of this subsection. Any costs or damages incurred are assumed by the Consultant by acceptance of the contract. It is further understood that the Consultant's responsibilities in the performance of the contract, in case of an approved subcontract, are the same as if the Consultant had handled the work with the Consultant's own organization.

IX. GENERAL CONSULTANT RESPONSIBILITIES INCLUDE BUT ARE NOT LIMITED TO THESE TASKS:

A. Provide complete and detailed Quality Assurance/ Quality Control (QA/QC) for the entire study, developed in cooperation with sub-consultants. The consultant will also negotiate QA/QC procedures with the Canadian Consultants for shared work items. The consultant will submit a QA/QC plan. The QA/QC plan shall include sign-off by all QA/QC coordinators, prime and sub-consultants, for all study material that requires submittal to the MDOT. If theses signatures are not provided, information will be promptly returned. All reports will be submitted to the Project Manager for a draft review before being finalized. Consultants will need to respond to review comments by either making changes in the report or documenting to the Project Manager the reasons why the change was not made.

B. The Consultant will coordinate joint work activities with the Canadian Consultants(s). These include, but are not limited to:
   1. QA/QC planning
   2. Website development and maintenance
   3. Toll free phone number
   4. Identity/logo development
   5. Newsletters

6. Alternatives identification
7. Selection of Illustrative, Practical and Recommended Alternatives
8. Public involvement
9. Evaluation criteria refinement
10. Editorial guidelines for study publications needing a common look and format.

C. The Consultant will prepare, refine and maintain a Work Breakdown Structure (WBS) for the duration of the study. (See example on CD)

D. The Consultant will coordinate and conduct public informational meetings, the public hearing, advisory committee meetings, Steering Committee meetings, monthly Working Group meetings and other necessary meetings. The consultant will prepare for, attend and take minutes for all meetings. This task may require the preparation of brochures, mailings, displays, marked-up plans, and any other meeting materials.

E. The consultant shall have a local presence in the Detroit Area for the duration of the study.

F. The consultant will prepare, print and distribute newsletters.

G. All Lead/Key and main study support staff from prime and sub-consultants will attend meetings unless otherwise directed by the MDOT Project Manager.

H. The consultant shall provide translated versions, in Spanish and Arabic, of all milestone documents.

I. The study shall use principles of Context Sensitive Design (Value Planning in Canada) to undertake public involvement and transportation decision making activities. Refer to National Cooperative Highway Research Report 480 "A Guide to Best Practices for Achieving Context Sensitive Solutions," 2002 for more information.

J. The consultant shall coordinate the study with other transportation studies and/or studies such as, but not limited to the following:
   1. Ambassador Gateway Project
   2. Ambassador Bridge Twin Span Proposal
   3. I-94 Rehabilitation Study
   4. Port Authority Dock Project
   5. Bluewater Bridge Plaza Study
   6. Lansing to Detroit Rail Study
   7. Detroit Intermodal Freight Terminal Study
   8. Other Local Road and State Road Studies and/or Improvements
   9. Detroit River Tunnel Partnership (DRTP) or the Jobs Tunnel
   10. Mich-Can Bridge Proposal
   11. Don Flynn, Hennepin Point Crossing Inc.

K. Coordinate all study activities with other responsible and cooperating federal, local, and state agencies. The consultant shall provide documentation of coordination to the MDOT Project Manager for all agency contacts.

L. Consider the need for field reviews throughout the study.

M. Refer to FHWA Technical Advisory T6640.81 for expectations on the DEIS and FEIS.

X. DETAILED CONSULTANT RESPONSIBILITIES INCLUDE BUT ARE NOT LIMITED TO THESE TASKS:

The following tasks are organized by Program/Project Management System (P/PMS) number and are designed to provide specific technical requirements. Please refer to the P/PMS manual for more general information about the tasks.

A. P/PMS TASK 1220 – Verification of EPE Activities (Scoping the Study)

1. Objectives:

a. Obtain a more thorough understanding of the study scope.
b. Initiate and solidify working relationships with the Study Steering Committee, Working Group, and Canadian consultant(s).
   i. Plan an open, inclusive, and unbiased public involvement program.
   ii. Support effective and regular public input via workshops, meetings, and the Internet.
   iii. Plan to obtain meaningful public involvement to support decision-making.

2. Work Expectations:

a. Identify Stakeholders
b. Organize and maintain a mailing list for the duration of the study.
c. Organize Local and Special Interest Advisory Committee(s)
d. Provide thorough documentation of public involvement activities
e. Prepare Public Involvement Plan
f. Prepare QA/QC plan
g. Continue federal agency coordination.

3. Assumptions:

a. MDOT staff will conduct team building exercises as part of the study kick-off
b. The consultant will recommend a process for organizing the Advisory Committee(s).
c. The MDOT Office of Communications will handle press releases; the consultant will support this function.
d. Public Involvement efforts will be extensive and will occur throughout the study.
e. Public involvement will be closely coordinated with the Working Group, the Canadian consultant and the MDOT Public Hearings Officer.
f. MDOT will provide initial contact lists after contract execution.
g. Evaluation criteria were developed for the Canadian Terms of Reference; these will undergo public airing and refinement early in

the study schedule and receive further refinement as the study evolves.

h. The Public Involvement Plan will be developed jointly with the Canadian consultant and presented to the Working Group and Steering Committee as needed.
   i. The American consultant(s) will negotiate with the Canadian consultant(s) to design a strategy to share common work items.
   ii. The study will have only one website, one newsletter, one identity on both sides of the border.

4. Deliverables:

a. Public Involvement Plan
b. Mailing and stakeholder lists
c. Local and Special Interest Advisory Committee(s)
d. Roles and responsibilities charters for the Local and Special Interest Advisory Committee(s)
e. Communication Plan to handle public relations and team communications
f. Establish an 800 number
g. Public meetings
h. Federal agency partnering agreements
i. Logo/study identity/new name developed
j. QA/QC Plan

B. P/PMS TASK 2120 – Prepare Traffic Analysis Report

1. Objectives:

a. To provide traffic forecasts and traffic analysis for each alternative, including the 'no-build' alternative to support:
   i. Development of illustrative and practical alternatives
   ii. Identification of traffic impacts of alternatives
   iii. Identification of facility and system needs related to cross-border traffic mobility (e.g., interchange capacity issues)
   iv. Identification of key freight mobility issues, including both truck and rail, which will affect the future volume of trucks using international crossings in the study area. Examples of these issues include private sector control of transportation modal selection and routing decisions, historical trade volumes, existing international trade agreements, and general economic forecasts.
   v. Evaluation of alternatives
   vi. Refinement, evaluation, and documentation of the Recommended Alternative.
   vii. Development of an acceptable Access Justification Report (AJR).
   viii. Design of the proposed plaza, customs, and toll operations

b. An important purpose of the study is to support the economy, e.g., freight mobility. Therefore, a primary aim of the traffic analysis is to show freight movements through the network in sufficient detail to support alternatives analysis and evaluation. Specifically this means that the network aspects of international and domestic freight should be explicitly modeled and analyzed in relation to the border crossing. Rail freight and changes in the capacity of cross border rail facilities shall be evaluated in the context of the traffic study.

2. Work Expectations:

a. Coordinate the traffic analysis with appropriate federal agencies responsible for plaza development.

b. Based upon the TDM, a sub-area shall be defined to include a strip of land adjacent to the Detroit River Area in which alternatives are located, and extending to include I-94 and its connections to I-75 and I-96. The sub-area shall include I-75 and I-96 north and west of I-94 for a sufficient distance to capture major freight movements, and east and west on I-94 for a sufficient distance to encompass the loading from the proposed border crossings and other major freight movements. The sub-area model shall be further refined and calibrated to provide input into the traffic simulation model.

c. Illustrative and Practical Alternatives Level 1 Analysis: It is assumed that the Travel Demand Model discussed below, will provide the basis for evaluating Illustrative Alternatives and the first level of analysis of Practical Alternatives. Link volume-to-capacity ratios and densities and network evaluation shall be provided for AM and PM peak periods. Additionally, a Midday peak period model shall be developed based upon the Origin-Destination (OD) trip tables for both trucks and passenger vehicles provided in the Feasibility Study. The Midday peak shall be selected to coincide with the peak period for truck volumes. The network evaluation will examine key travel paths for international traffic.

This analysis will provide a first level screen of alternatives from the standpoint of traffic mobility. While rail freight is the responsibility of private parties, enhancements in the ability of rail to carry freight address the purpose of the study. Furthermore, although rail may not be explicitly modeled, changes in the amount and type of freight carried by rail and the capacity of cross border rail facilities shall be evaluated and reported. The evaluation shall be based upon the best available data and shall use appropriate analytical tools and/or subjective methods approved by MDOT.

i. Travel Demand Model: The Feasibility Study developed a 2030 traffic model (IBI TDA) based upon SEMCOG's 2025

Travel Demand Model. The current study will require that the Consultant use the SEMCOG 2030 Travel Demand Model to develop a 2035 model. The five year period between 2030 and 2035 will be forecasted using straight line projections (or other approved method) extracted from the 2030 model. The 2030 trip tables shall also be updated to 2035. The model shall include other modes such as transit. The platform shall be a version of TransCad compatible with SEMCOG's and MDOT's version.

ii. Windowing In: Consultants will window in on the sub-area in the vicinity of the Detroit Windsor crossing and calibrate and make minor refinements to IBI TDA, as needed. Additional count data provided by MDOT and/or the Consultant shall be used to calibrate and update the OD matrices.

iii. Designate Interstate freeways as truck routes.

iv. For each Practical Alternative and for the No-Build Alternative, assign traffic the network by means of an equilibrium assignment. There will be three vehicle fleets: Passenger vehicles, domestic trucks and, international trucks. Trucks will be limited to truck routes. Alternately, trucks may be pre-loaded on the network truck routes, and passenger vehicles may be loaded according to an equilibrium assignment.

v. For each alternative, report ADT's and report peak periods and peak hours for the AM, the PM, and Midday peaks, for the base year (2005) and the forecast year (2035).

vi. For each scenario, for each link, report V/C's and densities from the TDM for the AM, the PM, and the Midday peak periods for the base year and the forecast year.

vii. Freight analysis: Consultant will identify key freight routes, and perform an analysis on freight movements in the network, noting interchanges where there are major splits in freight movements, and note areas where capacity constraints may impinge on freight mobility. Domestic and international freight movements will be identified. A narrative of findings will be reported. Included in the freight analysis, will be an analysis of significant changes in the capacity of rail freight facilities, or in the type of rail freight (e.g., cross border double stack capability). Also included will be a description of the impacts of changes in cross-border rail capability on local intermodal freight operations and vice-versa. A high level modeling or traffic analysis of rail operations is not required. Rather a subjective or qualitative assessment shall be undertaken, and a narrative of findings be reported.

d. Practical Alternatives Level 2 Analysis: After all Practical Alternatives have been screened on a broad array of environmental

and traffic factors, some practical alternatives will be carried forward for a second level of traffic analysis.

i. Level 2 will provide highway capacity analysis of the surface network and facilities connecting the border crossing plaza to the interstate network. From the point of connection to the interstate network, the analysis shall extend to two interchanges upstream and two interchanges downstream on all connecting freeway links. It shall also extend to any nearby freeway-to-freeway interchanges with significant freight flows (for instance, the I-94/I-96 interchange would be included in an analysis of the twin span of the Ambassador Bridge). The most recent version of the Highway Capacity Manual shall be used. In situations where geometry or traffic movements cannot be adequately evaluated using HCM, a simulation program or other tool shall be used. The analysis shall be for AM, PM, and Midday peak hours for the base year and for the forecast year.

ii. Volume-to-capacity ratios, levels of service, queues, delays, and densities shall be reported.

iii. Portions of the TAR dealing with existing traffic, with the No-Build scenario, and with alternatives not carried forward to Level 3, shall be completed and submitted to MDOT staff immediately after the Level 2 analysis stage is completed.

e. Practical Alternatives Level 3 Analysis: After further screening, one or more alternatives may be identified as best meeting the Purpose and Need of the study. These will be carried forward to a third level of traffic analysis.

i. Level 3 will include micro-simulations of the practical alternatives carried forward. Simulations shall be provided for the AM, PM, and Midday peak periods, for the base forecast years. VISSIM or Paramics or comparable software capable of modeling toll booth operations, distinct truck fleets, and freeway-to-freeway interchanges shall be used. Consultant shall submit a plan for calibrating the model which shall include data needs. Travel time and delay studies should be used to calibrate saturated links.

ii. Two types of trucks (domestic and international) and passenger vehicles will be distinctly assigned to the network according to their separate origin-destination matrices. Transit shall be included where appropriate.

iii. The network to be simulated will be from the border crossing plaza to the freeway system and the upstream and downstream freeway links on all freeway legs, as well as include nearby interchanges where there are major freight splits.

iv. Example: If the alternative for a twin span of the Ambassador Bridge were to be selected, the network would include the

connections from the Plaza to I-75; North on I-75 to M-10; South on I-75 two interchanges; West on I-96 to two interchanges west of I-94; I-94 from two interchanges east of I-96 to two interchanges west of I-96.

v. A narrative of results will be reported as well as quantitative measures of effectiveness. Both facility and system performance shall be analyzed. Densities, capacity, queues, bottlenecks, and key issues for freight mobility shall be reported. In addition, model development and calibration shall be thoroughly documented, such that the results can be replicated in future applications.

f. Recommended Alternative: Level 3 analysis shall be performed for the Recommended Alternative and/or for any variants of the Recommended Alternative that the Steering Committee decides to carry forward for further analysis.

g. Draft Environmental Impact Statement (DEIS): Consultants shall prepare written Traffic Analysis Reports (TAR's), including exhibits, and electronic files of all analyses for the Practical Alternatives carried forward. Documentation of traffic analyses performed for Practical Alternatives analyzed, but not carried forward shall be prepared for inclusion in the DEIS. The TAR shall also document congestion management elements tested or incorporated in alternatives analysis, consistent with SEMCOG's CMS program. The TAR shall be submitted to MDOT staff sufficiently in advance of the DEIS to allow for review and editing.

h. Final Environmental Impact Statement: Prepare the final TAR for the Recommended Alternative.

i. Access Justification Report (AJR): Prepare the Access Justification Report (AJR), using the most recent Federal Highway Administration (FHWA) Guidelines.

j. SEMCOG Congestion Management System (CMS): Test and incorporate elements of congestion management in alternatives analysis consistent with SEMCOG's CMS Program.

k. Design of the proposed plaza and customs and toll operations: VISSIM or Paramics shall be used to simulate the Plaza and the toll and customs operations on the Plaza. This shall be closely coordinated with GSA and with a Border Wizard simulation. The design scenarios shall be for the AM, PM, and Midday peaks, for the base and forecast years, and shall explicitly model trucks and passenger vehicles, primary and secondary inspections, and other facilities (e.g., duty free stores).

The consultant will assess the usefulness of Border Wizard in the engineering development of the various proposed crossings and the relationship operationally to the regional transportation model and assessment of the various proposed alternatives.

The consultant will be required to write a report assessing the following key points:

1. Background information on the study and the need to incorporate the use of border wizard
    a. who sponsored the study
    b. what other government agencies were involved
    c. what resources each government agency contributed to the study (financial and other resources)
    d. which contractors participated in the study
    e. what roles the participating contractors played in the study
    f. what the timeframe for the study was
2. Issues faced in obtaining Border Wizard model
3. Restrictions placed on the use of Border Wizard
4. Training needed and ease of use for Border Wizard
5. Necessary technical assistance on use of Border Wizard
6. Ease of use in conjunction with the transportation needs for the regional transportation assessment
7. The actual details on how Border Wizard was used
    a. the sources of data used in modeling the border stations involved
    b. the issues involved in collecting the data used in modeling the border stations involved
    c. whether new border station layouts had to be created to model the border stations involved
    d. whether any previously existing border station layouts had to be modified to model the border stations involved
    e. who actually set up and executed simulations in BW, local agency personnel or contractor personnel
    f. how much training was involved for the personnel who set up and executed simulations using BW
    g. if someone other than Regal Decisions set up and executed the simulations, whether they consider BW easy to use and yielding of results that could easily be interpreted
    h. what tools and reports were used to analyze the results of BW simulations
    i. what calibration was done to the model
    j. whether multiple simulations were run (and how many) to ensure that results given were reasonable and not dependent on a single set of parameters
8. Coordination with key stakeholders on results of Border Wizard (i.e., GSA, CBP)
9. Acceptance/usefulness of results
10. Interface between Border Wizard and other modeling used for the study
11. Key lessons learned (including recommendation or not of this application for transportation purposes).
12. Assess future long term transportation needs with the use of Border Wizard (i.e., data updates, model updates, etc.)

3. **Assumptions:**
   a. MDOT will provide the IBI travel demand model (IBI TDM) documentation.
   b. The IBI TDM will be sufficiently documented and useable to allow for extending its modeling capabilities to future year (2030 and 2035) SEMCOG models without substantial re-work.
   c. Consultants will be able to model the mid-day peak period for passenger vehicles and trucks using TDM data provided by IBI. The SEMCOG and WALTS Midday matrices will need to be developed.
   d. Consultants will use an interface program such as VISSIM or Estimator to refine the OD matrices from the Feasibility Study. Additional count data or OD information will be used to refine the OD matrices.
   e. The consultant will have demonstrated experience developing, calibrating, and using VISSIM and/or Paramics for the analysis of study alternatives within complex urban areas.

4. **Deliverables:**
   a. A refined travel demand model (TDM), including the network assignments of two classes, domestic and international, of trucks and of passenger vehicles. Due before and during the development and evaluation of Illustrative Alternatives.
   b. A report thoroughly documenting the travel demand model development and calibration including updated OD matrices. Due before and during the development and evaluation of Illustrative Alternatives.
   c. A plan for calibration of the simulation model shall accompany the work proposal.
   d. A report on freight mobility, discussing freight flows and issues on the TDM network for both domestic and international freight.
   e. Traffic Analysis Reports (TAR's) on a timely basis to support decision making at each of the following stages:
      i. Illustrative Alternatives: TDA measures of effectiveness and a narrative analysis to support evaluation of Illustrative Alternatives.
      ii. Practical Alternatives, Level 1 Travel Demand Model Analysis
      iii. Practical Alternatives Level 2 Highway Capacity Analysis
   f. Practical Alternatives Level 3 micro-simulation. The traffic analysis shall provide a quantitative and narrative analysis of freight and passenger car mobility. A report thoroughly documenting the simulation model development and calibration will be included.
   g. Reports, simulations, and analyses (DEIS, FEIS, Access Justification Report (AJR)) shall be prepared as needed at each stage of study. Before being used in decision making, each product shall be submitted to MDOT technical staff with sufficient lead time to allow for review

and rework as necessary. Electronic files shall be given to MDOT technical staff for review.

h. Plaza VISSIM or Paramics, and Border Wizard simulations and traffic analysis: As needed for design of Plaza, and alternatives evaluation.

C. P/PMS TASK 2130 – Prepare Job Justification

1. Objectives:

a. Obtain agency concurrence and public comment on the Purpose and Need Statement

2. Assumptions:

a. The Draft Purpose and Need Statement is complete, however Federal and State agency and public review and comment on the Purpose and Need Statement will need to take place and may lead to further refinement to reach a final version.

3. Deliverables:

a. Final Purpose and Need Statement

D. P/PMS TASK 2140 – Develop & Review Illustrative Alternatives

1. Objectives:

a. Identify optimal Illustrative Alternatives using a screening process subject to constraints defined by the environment, engineering requirements, social context, and financial considerations.

b. Meet The NEPA requirements of identifying and analyzing all reasonable alternatives.

2. Work Expectations:

a. Continue data collection

b. Meet with governmental agencies, stakeholders, the Working Group, the Steering Committee, the Local Advisory Committee and all other interested parties.

c. Develop conceptual cost estimates for design, and construction.

d. Conduct windshield surveys

e. Identify known areas of concern on constraint maps

f. Coordinate with the Canadian Consultant in the use of route optimization technology such as Quantm (or approved equal) to support Illustrative Alternative development and analysis.

g. Determine the number of potential displacees.

h. Perform interviews of property owners, as needed.

3. **Assumptions:**
   a. The study will build on preliminary evaluation criteria identified in the Planning/Need and Feasibility Study and in the Canadian Terms of Reference document.
   b. The Illustrative Alternatives will be identified in cooperation with the Working group and the Canadian consultant.
   c. The Steering Committee will approve the Illustrative Alternatives before the consultant begins the identification of Practical Alternatives.
   d. Because this is an urban area, the study is likely to encounter complex right of way issues.
   e. MDOT staff will provide conceptual right-of-way acquisition cost estimates

4. **Deliverables:**
   a. Illustrative alternatives report with documentation on how the alternatives were generated and why some were eliminated
   b. Working Group, Stakeholder, Public and Steering Committee meetings.
   c. Periodic newsletters and other communications
   d. Illustrative Alternatives Brochure/Display Materials/presentations
   e. Refined evaluation criteria

E. P/PMS TASK 2160 – Develop EIS Scoping Document

1. **Objectives:**
   a. Provide information on Illustrative Alternatives, evaluation criteria and environmental concerns to the public and resource agencies
   b. Obtain input to help identify Practical Alternatives or other Illustrative Alternatives.

2. **Work Expectations:**
   a. See The Project/Program Management System (P/PMS) Manual for general information.
   b. Provide field reviews for resource agency staff and other federal agency staff

3. **Deliverables:**
   a. Meetings and support materials.
   b. Scoping document.

F. P/PMS TASK 2310 – Conduct Technical SEE Studies
Endangered Species:

1. **Objectives:**

a. Assure that MDOT is in compliance with all state and federal laws regarding Endangered Species.
b. Strive to minimize impacts to plant and animal endangered species and their habitats.
c. Evaluate resources and impacts concurrently with Canadian resource agencies.
d. Satisfy state and federal regulatory agency concerns and requirements regarding endangered species and their habitats.

2. **Work Expectations:**
   a. For Illustrative Alternatives, the level of effort should include paper with windshield surveys. The Practical Alternatives may require field surveys.
   b. Identify all state and federally listed Threatened/Endangered/Special Concern species and potential habitat(s) in the study area.
   c. Obtain early coordination letters from Michigan Department of Natural Resources (MDNR), United States Fish and Wildlife Service (USFWS) and Michigan Natural Features Inventory (MNFI) regarding their issues and concerns with the study.
   d. Perform a field evaluation for all species and habitats. Habitat for endangered species may require a three season survey to determine potential impacts. Specific species should be surveyed for when they are most visible and according to a method agreed upon with the resource agencies.
   e. Review plant and wildlife documentation, literature, and agency reports.
   f. Coordinate activities with the applicable resource agencies.
   g. Analyze the data collected for the species and their habitats. Look at direct, indirect and cumulative impacts for each species.
   h. Prepare a technical report.
   i. Conduct formal Section 7 consultation with the USFWS, if needed.
   j. Prepare Draft and Final EIS sections.
   k. Consider indirect and cumulative effects for Practical Alternatives and the Recommended Alternative.

3. **Assumptions:**
   a. MDOT will obtain state or federal endangered species permits, if needed.
   b. There will likely be no federally listed species requiring formal Section 7 consultation with USFWS.
   c. Most of the potential impacts with listed species would occur within the water of the river and will be animal related.

4. **Deliverables:**
   a. Endangered Species Technical Report.
   b. Draft and Final EIS sections.

Coastal Zone:

1. **Objectives:**
   a. Assure that MDOT is in compliance with all state laws regarding Coastal Zone (CZ), Critical Dunes (CD), Sand Mining, and the Coastal Barrier Resources Act (COBRA)
   b. Strive to minimize impacts to coastal resources.
   c. Evaluate coastal resources and impacts concurrently with Canadian resource agencies.
   d. Satisfy the state and federal regulatory agencies (MDEQ, Coast Guard, US Army Corps of Engineers) concerns and requirements.

2. **Work Expectations:**
   a. For Illustrative Alternatives conduct dry lab or paper reviews with the windshield surveys. For Practical Alternatives, conduct more detailed field surveys and engage resource agency staff as needed.
   b. Determine all CZ, CD, COBRA potential sites based on the maps provided by the MDEQ and review CZ documentation, literature, and agency reports.
   c. Perform a field evaluation for all coastal resources in the study area.
   d. Begin coordination with the U.S. Coast Guard, Canadian officials and U.S. Army Corps of Engineers at the beginning of the study. Coastal Zone determinations will require consistency evaluations regarding all other impacted Social, Environmental and Economic (SEE) factors. This is usually done after all other impacts are known at the end of the S.E.E. analysis period.
   e. Use the alternative descriptions to evaluate impacts to the coastal resources.
   f. Create a technical report describing the resources present, their quality and impacts.
   g. Clearly state, define and quantify all impacts to the coast zone, critical dunes, COBRA, and sand dune mining areas within the FEIS for the Recommended Alternative.
   h. Consider indirect and cumulative effects for Practical Alternatives and the Recommended Alternative.

3. **Assumptions:**
   a. MDOT will obtain permits, if needed.
   b. There will be impacts to the coastal zone habitat within the study area. These impacts could be large since these areas will likely be under massive construction.
   c. There will likely be no impacts to critical dunes, sand mining and coastal barrier resources.
   d. The coastal zone impacts will likely be manageable under permit through the MDEQ.

e. The study will require coordination with the U.S. Coast Guard, Canadian officials and the U.S. Army Corps of Engineers due to the navigable waters.

4. **Deliverables:**
   a. Coastal resources technical report.
   b. Draft and final EIS sections.

Archeology:

1. **Objectives:**
   a. Meet National Historic Preservation Act (NHPA) Section 106 and NEPA 4(f) requirements by both identifying and evaluating archaeological, traditional, cultural, and religious place resources within the Area of Potential Effects.
   b. Mitigate any impacts to resources.

2. **Work Expectations:**
   a. Research State Historic Preservation Office (SHPO)/Office of the State Archaeologist (OSA)/local records to identify known archaeological and Traditional Cultural Properties (TCP) resources and develop maps indicating these resources' locations
   b. Develop study areas for Land Use Histories
   c. Identify potential areas of Traditional Cultural and Religious Properties
   d. Participate in Public and Working group meetings, as required;
   e. Develop land use histories
   f. Analyze land use histories for refinement of archaeological and TCP site locations
   g. Support MDOT/FHWA in TCP meetings/consultations including developing formal and informal presentations, as required
   h. Review/modify Constraints Map
   i. Conduct Phase I/II archaeological investigations for the Practical Alternatives (with deep testing), including all necessary analysis and reporting where needed.
   j. Prepare a condensed version of the land use histories and archaeology reports for public consumption and distribution to local libraries and historical societies (Spanish, and Arabic translations may be required)
   k. Identify eligible and/or listed archaeological and TCP resources and map locations
   l. MOA development and consultations, if needed.
   m. Sections for the DEIS, FEIS and ROD.
   n. See Work Specifications for Archaeological – Cultural Resources Investigation in Appendix G for more expectations.

3. **Assumptions:**
   a. All Tribal consultations (if required) will be conducted by MDOT-FHWA with the consultant supporting, as needed.
   b. Persons conducting archaeological investigations meet and/or surpass educational and experience requirements specified in the Secretary of the Interior's Guidelines.
   c. No Phase III Archaeological Data Recovery Mitigations are included.
   d. All work tasks to be coordinated with the MDOT Staff Archaeologist and Project Manager.

4. **Deliverables:**
   a. Land use history/s
   b. Archaeological and TCP location maps
   c. Archaeological Phase I/II (with geomorphologic and deep testing) reports
   d. DEIS/FEIS/ROD Archaeological Resources Sections
   e. Land use histories and archaeological reports for public consumption and distribution
   f. Public and/or presentation support materials and exhibits

Architecture:

1. **Objectives:**
   a. To identify a logical, reasonable Area of Potential Effect (APE) for the study area.
   b. To identify all historic above-ground resources within the APE area.
   c. To determine potential impacts to the identified resources
   d. To determine a recommended alternative design that will avoid adverse impacts, minimize impacts or provide mitigation where adverse impacts are unavoidable.

2. **Work Expectations:**
   a. Identify and Review existing documentation that provide historical backgrounds/contexts
   b. Identify previously listed National Register of Historic Places (NRHP) and State historic districts and individual resources (including buildings, structures and sites).
   c. Identify key concerns for Illustrative Alternatives analysis based on secondary data, public input and windshield surveys.
   d. Verify A.P.E. boundaries through consultation with SHPO.
   e. Identify stakeholders.
   f. Plan and conduct reconnaissance and intensive level surveys for the Practical Alternatives.
   g. Produce draft cultural resources report; produce final report based on SHPO and MDOT review and commentary.

h. Attend regular team meetings, public meetings, and hearings, as needed.
i. Identify potential impacts to historic above-ground resources.
j. Recommend ways to avoid or minimize adverse impacts.
k. Prepare a draft Memorandum of Agreement (MOA) and supporting documentation to address mitigation commitments for the Recommended Alternative where adverse impacts are unavoidable.
l. See Work Specifications for Survey of Above-Ground Cultural Resourves in Appendix H for more expectations.

3. **Assumptions:**
   a. Consultant consultation with agencies and stakeholders will occur under the direction of the MDOT Project Manager or his/her representative.
   b. Consultant will carbon copy the MDOT Historian and the Project Manager all written communication (standard or electronic mail).
   c. Given the land use in the study area, historic property concerns may play an important role in the study.

4. **Deliverables:**
   a. Maps depicting study A.P.E. and known and potential historic above-ground resources.
   b. Quality presentation maps, photographs and other graphics demonstrating general historical and contemporary contexts and / or individual districts and/or resources for use in public meetings, newsletters, study website, outreach and cultural resources reports
   c. Draft and final cultural resource reports.
   d. DEIS and FEIS sections.
   e. Draft and Final MOA's, if needed.

Agricultural:

1. **Objectives:**
   a. Compliance with federal and state laws regarding agricultural property impacts.
   b. Evaluate and minimize agricultural property impacts caused by the proposed study, including any impacts due to wetland mitigation.

2. **Work Expectations:**
   a. For Illustrative Alternatives perform paper or dry lab reviews along with windshield surveys.
   b. For Practical Alternatives, if any right-of-way will be required from agriculture or forestry zoned parcels then submit a form AD-1006 (Farmland Conversion Impact Rating) to the proper United States Department of Agriculture (USDA)/ Natural Resource Conservation Service (NRCS) office. When the NRCS returns AD-1006 form then complete Part VI (Site Assessment Criteria).

c. Contact Michigan Department of Agriculture for a list of all PA116 parcels in the study area.
d. Determine impacts to farmland under the Federal Farmland Protection Act and PA116.
e. Address impacts to well maintained on-farm investments (Barns, irrigation, orchards, vineyards, etc.)
f. Address social and economic impacts to local farm families and farm support services.
g. Follow the same PA116 review and AD-1006 process for wetland mitigation sites, if farmland.
h. Coordinate with federal and state resource agencies when impacts can not be avoided.
i. Consider indirect and cumulative effects for Practical Alternatives and the Recommended Alternative.

3. **Assumptions:**
   a. U.S. farmland will play a minor or no role in this study.

4. **Deliverables:**
   a. Completed Farmland Conversion Impact Rating (AD-1006).
   b. Documented coordination with the Michigan Department of Agriculture (MDA)
   c. DEIS and FEIS sections

Air Quality:

1. **Objectives:**
   a. Provide an air quality analysis that conforms to the procedures outlined in 40 CFR 51 and 93, 23 CFR 771, the Clean Air Act (amended in 1990), and National Environmental Policy Act (NEPA), Federal Highway Administration (FHWA) and Environmental Protection Agency (EPA) regulations and guidelines.

2. **Work Expectations:**
   For Illustrative Alternatives:
   a. Identify sensitive receptors.

   For Practical Alternatives:
   a. Micro-scale (hot spot) carbon monoxide (CO) analysis (1-hour and 8-hour) for existing, no build, and all alternatives using EPA approved emissions model (MOBILE 6.2) and dispersion model (CAL3QHC is preferred)
   b. Air quality analysis modeling for no build and all alternatives for construction year and 25 year levels (after construction)
   c. Verify study status in the state's long range plan, transportation implementation plan (TIP), Southeast Michigan Council of Government (SEMCOG) regional transportation plan (RTP)

d. Traffic and vehicle miles traveled (VMT) information for conformity analysis and the State Transportation Implementation Plan (STIP)
e. Prepare air quality sections of the Draft and Final Environmental Impact Statement (EIS) and air quality technical report.
f. Coordinate with SEMCOG regarding Congestion Management System (CMS) to show that the proposed alternatives for a new Single Occupied Vehicles (SOV) facility contribute to attainment of the National Ambient Air Quality to be in compliance with 23 CFR 450.320.
g. Attend public hearings and meetings, as needed.
h. Establish and support an Air Quality Advisory Committee.

3. **Assumptions:**
   a. See attached CD for Air Quality Impact Assessment Methodology from the Planning, Need and Feasibility Study.
   b. The DRIC Study will be placed in the RTP for conformity analysis by MDOT.
   c. Stability class D
   d. Worst case meteorology
   e. CO Hot-spot analysis temperature -30°F
   f. MOBILE6.2 default values for fleet average emissions
   g. Wayne County will be in non-attainment for fine particulate matter ($PM_{2.5}$) when EPA announces classification in December, 2004; "hot-spot" analysis will be required
   h. The issues of air toxins, health risk assessments and dispersion modeling of fine particulate matter have been controversial at local, state, and federal levels. Ongoing discussions about methodology are anticipated.

4. **Deliverables:**
   a. Air quality technical report
   b. Air quality sections of the DEIS and FEIS.

Noise:

1. **Objectives:**
   a. Provide a traffic noise analysis that conforms to the procedures outlined in 23 CFR 772, and National Environmental Policy Act (NEPA), *Highway Traffic Noise Analysis and Abatement Policy and Guidelines* from Federal Highway Administration (FHWA, June 1995) and Michigan's State Transportation Commission's Policy on Noise Abatement (Guidance Document 10136, July 31, 2003) and Michigan Department of Transportation's (MDOT) *Procedures and Rules for Implementation* of this policy.

2. **Work Expectations:**
   a. Take field measurements of existing noise levels using Type I sound level meter calibrated using national standards
   b. Check the accuracy of the FHWA approved Traffic Noise Model 2.5 (TNM2.5) with the field measurement and adjust if more than 3dBA off
   c. Identify sensitive receptors within the study area and use TNM2.5 to model future traffic sound levels for the no build and all alternatives for construction year and 25 year levels (after construction)
   d. Supply average daily traffic (ADT), AM and PM peak counts for cars, medium and heavy trucks for existing, and predicted counts for no build and all alternatives for construction year and 25 year levels (after construction)
   e. Prepare noise analysis sections of the Draft and Final Environmental Impact Statement (EIS) and noise analysis technical report.
   f. Attend public hearings and meetings as needed.

3. **Assumptions:**
   a. $34,772 (in 2004 dollars) per benefiting unit for reasonability
   b. Bridge or tunnel approaches, plaza, custom and toll areas will be the primary areas of noise generation and most of that noise will be created by heavy truck engines

4. **Deliverables:**
   a. Traffic noise technical report
   b. Noise analysis sections of the DEIS and FEIS.

Water Quality:

1. **Objectives:**
   a. Evaluate water quality conditions to support:
      i. Development of Illustrative and Practical Alternatives.
      ii. Identification of water quality impacts for the alternatives.
      iii. Documentation that the study will comply with National Pollutant Discharge Elimination System (NPDES) permit requirements (Phase II statewide and construction).

2. **Work Expectations:**
   For each Illustrative Alternative:
   a. Determine the source of drinking water for the local community and determine whether any alternative will impact a well head protection area.
   b. Evaluate each alternative for potential impacts to surface water intakes if the municipal drinking water source is from surface water.
   c. Discuss local geology and determine whether there are karst conditions or areas of groundwater re-charge that would be impacted

by any of the alternatives. The geology discussion should include a description of the depth to the first significant confining geologic layer based on a review of either municipal well logs or private potable well logs obtained from the county health department.

d. Ascertain which regulated surface water bodies (as defined in Part 31 of Act 451) are within the study zone of impact.
e. Determine whether any of the identified water bodies are listed on MDEQ's Total Maximum Daily Load (TMDL) or 303(d) non-attainment list. Describe TMDL goals or non-attainment issues for each listed water body. Additional information regarding Michigan TMDLs and the 303(d) non-attainment list may be found at the following website: http://www.michigan.gov/deq/0,1607,7-135-3313_3686_3728-12464--CI,00.html
f. Evaluate contaminated sites that will pose a significant risk for each alternative. Significant risk includes, but is not limited to, a site where groundwater contaminated above the MDEQ groundwater/surface water interface criteria will be intercepted by new subsurface utilities.
g. Consider indirect and cumulative effects for Practical Alternatives and the Recommended Alternative.

For Practical Alternatives:

a. Coordinate with the MDOT water quality specialist to seek comments from MDEQ-Water Division. The consultant will respond to MDEQ comments in the final drainage analysis for the Recommended Alternative.
b. The consultant should allow three (3) months for coordination following selection of a Recommended Alternative.
c. Determine whether any MDOT drainage will be directed to a combined sanitary/storm sewer system. Coordination with the owner of any combined system must be sought to determine if new drainage agreements are necessary. Any new discharge to a combined system must also be evaluated to determine whether there is an increased potential for a sewer overflow as a result of the new discharge.

For Recommended Alternative:

a. Determine whether anticipated pollutant loadings from the recommended alternative will comply with MDEQ-Water Division goals and/or TMDLs.
b. Develop mitigation strategies for any aspect of the recommended alternative that will not comply with TMDL goals or will cause a violation of water quality standards.
c. Estimate increased pollutant loads to any impacted water body based on increases in impervious area; increased amount of direct drainage (i.e. from bridge deck); other sources (spills, parking areas, etc.). Pollutant loads should be calculated based on reliable studies (e.g. FHWA run off studies). Estimated pollutant loads should be used to

predict whether violations of water quality standards or TMDL goals would result from construction of the alternative.

d. Documentation should appear in the hydraulics report, but should also be available for DEQ consultation.

3. **Assumptions:**
   a. Combined sanitary/storm sewer systems will be encountered within the Detroit area

4. **Deliverables:**
   a. DEIS and FEIS section on water quality.
      i. The FEIS will include documentation that construction of the recommended alternative will comply with the requirements of MDOT's Phase II state wide storm water permit.
      ii. Documentation of MDEQ-Water Division comments in the FEIS. Response to MDEQ comments should be addressed in the drainage analysis as part of the FEIS.

Recreational Areas:

1. **Objectives:**
   a. Identify Section 4(f)/6(f) resources in a timely fashion to support alternatives analysis and selection of a recommended route.
   b. Strive to avoid, minimize or mitigate impacts to 4(f) properties.
   c. Avoid 6(f) properties.

2. **Work Expectations:**
   a. Collect Data
   b. Field review all corridors and identify potential public recreational areas.
   c. Research if Section 6(f) funds were used to develop/purchase any public recreational areas in the corridor.
   d. Prepare for and attend various meetings (public and internal) as needed.
   e. Coordinate with the Department of Natural Resources/Department of Interior officials with jurisdiction over properties on location and funding of public recreational areas.
   f. Research history, use and landscape of public recreational areas.
   g. Prepare public recreational area analysis for DEIS and FEIS.
   h. Identify measures to minimize harm for the Section 4(f)/6(f) properties.
   i. Review coordination materials from resource agencies/officials with jurisdiction over Section 4(f)/6(f) properties.

3. **Assumptions:**
   a. Officials with jurisdiction over impacted Section 4(f)/6(f) resources will agree in writing to our assessment of impacts.
   b. Impacts to Section 6(f) properties will be avoided.

4. **Deliverables:**
   a. Maps depicting Section 4(f) and Section 6(f) properties.
   b. Documentation of coordination with officials with jurisdiction over Section 4(f) properties impacted.
   c. Section 4(f) and Section 6(f) analysis for DEIS and FEIS.

Social & Economic:

1. **Objectives:**
   a. Ensure that all populations and the existing economic conditions are identified.
   b. Determine the impacts that the proposed alternative(s) will have on the populations identified.
   c. Strive to avoid, minimize or mitigate for any impacts to the local and regional economy.

2. **Work Expectations:**
   a. Develop Community Inventory/Assessment (CIA) which will include identifying major employers, labor force, growth trends, tax revenue and other tax information, retail sales, and public expenditures, existing neighborhoods including housing stock, churches, schools, hospitals, recreational centers, police and fire services, and non-motorized paths, etc.
   b. For the Illustrative Alternatives, the consultant will produce an overview report based on secondary sources.
   c. For Practical Alternatives, the consultant will produce a more detailed inventory along with an assessment of impacts.
   d. Establish Public Outreach Program which will include community meetings.
   e. Produce tables and exhibits showing census data, community facilities (police, fire, hospitals, community centers, etc.) neighborhoods, religious centers, aesthetic and cultural resources, existing businesses, land use and transportation characteristics, schools, recreation areas, businesses, pedestrian/bicycle paths, and economic information.
   f. Conduct Technical Analysis (Social, Environmental Justice, Considerations relating to Pedestrians and Bicyclists, Maintaining Traffic, and Economic) (See Appendix I for guidance on Environmental Justice in NEPA documents)
   g. Analyze economic information that was developed as part of the Community Inventory
   h. Discuss impacts and mitigation measures in scoping, draft and final EIS Documents

i. Develop maps that will be needed for the scoping, draft and final EIS Documents as well as public involvement.
j. Consider indirect and cumulative effects for Practical Alternatives and the Recommended Alternative.

3. **Assumptions:**
   a. Social and economic considerations may play an important role in the study.
   b. Public outreach will be extensive
   c. The consultant will find meeting locations, arrange all community meetings and provide meeting materials.
   d. The consultant will identify and address all economic impacts and recommend measures to avoid, minimize or mitigate for potential impacts.
   e. The Consultant will work closely with the MDOT Social/Environmental Justice Specialist to ensure that all social/environmental justice issues have been addressed and that steps have been taken to avoid, minimize or mitigate for any potential impacts.
   f. The Planning Need and Feasibility Study provides useful economic data, however, the consultant should obtain and use current information for this study.

4. **Deliverables:**
   a. Community Inventory/Assessment Report(s)
   b. All technical data (Social, Environmental Justice, and Economic) and graphics needed for the scoping, draft and final EIS Documents
   c. Community outreach plan

Wetland Mitigation:

1. **Objectives:**
   a. Evaluate potential study-related impacts on designated wetland areas.
   b. Assure that MDOT is in compliance with all state and federal laws regarding wetlands protection.
   c. Obtain appropriate data to support decision-making.

2. **Work Expectations:**
   a. Conduct wetland delineations/determinations within the study area.
   b. Investigate types, locations, and extent of wetlands in the study area.
   c. Conduct wetland functional assessments.
   d. Identify and determine the nature, extent, and significance of wetland impacts of each study alternative by identifying type(s) of impacts expected from construction activities and study changes, identifying affected acreage of regulated wetland and regulated adjacent areas.
   e. Determine requirements for state permits for activities in wetlands.

f. Determine mitigation requirements resulting from the potential wetland impacts. This may involve locating suitable wetland mitigation sites if on-site mitigation is required (wetland impacts over 1/3 acre of an individual wetland complex require on site mitigation).
g. Document results in the draft and final EIS.
h. Consider indirect and cumulative effects for Practical Alternatives and the Recommended Alternative.

3. **Assumptions:**
   a. Wetlands are likely to play a small role in this study in the U.S.
   b. MDOT will be responsible for negotiating and obtaining any state or federal wetland permits. Should negotiations be required with the state or federal regulatory agencies, MDOT will lead these efforts.
   c. MDOT will take all efforts to avoid and minimize wetland impacts in accordance with state and federal wetland laws.
   d. In accordance with Federal Executive Order 11990, MDOT will comply with the federal "no net loss" of wetlands policy.

4. **Deliverables:**
   a. Wetland Technical Report listing type and acreage of all impacted wetlands, wetland functions and mitigation measures.
   b. Draft and final EIS sections.

Visual Resources:

1. **Objectives:**
   a. To identify landscape units (types), significant built structures (e.g., bridges, large buildings), and natural features (e.g., water bodies, vegetation) of the landscape visible both within and from the proposed corridors.
   b. To determine the impacts to viewers, both from the road (e.g., motorists, pedestrians, cyclists) and of the road (e.g., residents, recreational groups, special interest groups).

2. **Work Expectations:**
   For the Preliminary Review of the Proposed Corridors (Illustrative):
   a. Conduct initial evaluation of visual resources.
      i. Review maps, aerial photographs, existing visual resource assessments
      ii. Conduct a windshield survey of proposed corridors
   b. Identify critical or sensitive areas (parks, residential, historic, water bodies, etc.)
      i. Historic Fort Wayne and Belle Isle may require special attention
   c. Determine whether or not there are any existing plans or policies established by local units of government to protect, maintain, or enhance visual resources. If such plans or policies exist, determine compatibility with the proposed study.

For the Practical Alternatives:

a. Determine landscape units.
b. Establish zone of visual influence (viewshed).
c. Identify users/views both from the road and of the road.
d. Develop plan to obtain user/viewer perspectives on visual resources.
e. Assess visual impacts to users/viewers.

For the Recommended Alternative or Variants Carried Forward:

a. Develop mitigation plan to maintain and/or enhance existing viewshed for the Recommended Alternative.

3. **Deliverables:**
   a. Maps depicting landscape units
   b. Maps depicting zone of visual influence (viewshed)
   c. Documentation of public involvement to determine impacts to users/viewers (may be tied to the general public involvement plan)
   d. Visual resources analysis for DEIS and FEIS

Floodplains:

1. **Objectives:**
   a. Comply with resource area laws
   b. Obtain appropriate data to support decision-making

2. **Work Expectations:**
   a. Field visit to survey characteristics of study location(s)
   b. Review input from public and other agencies on study related issues
   c. Attend formal agency scoping meeting(s)
   d. Review hydraulics analysis for each proposed landing site
   e. Analyze data and prepare technical report, if needed.

3. **Assumptions:**
   a. Make use of existing data and previous reports to the maximum extent practical.
   b. Floodplain issues will be of minimal concern.

4. **Deliverables:**
   a. Floodplain Report, if needed.
   b. Draft and Final EIS sections

G. P/PMS TASK 2320 – Conduct Aerial Photography (See Appendix E2)

H. P/PMS TASK 2330 – Collect EPE Geotechnical Data

1. **Objectives:**
   a. To gather existing geotechnical data for similar structures in the area

b. To prepare a report on available data and relevancy to the proposed alternatives

2. **Work Expectations:**
   a. Identify sources of existing information and gather the data. Identify the date the data was obtained, its purpose, and location.
   b. Select the data most pertinent to the proposed structure alternatives.
   c. Prepare report summarizing and categorizing the available geotechnical data.

3. **Assumptions:**
   a. Subsurface conditions do not vary significantly in the Detroit area
   b. The existing data will provide sufficient geotechnical information for preliminary foundation investigation.

4. **Deliverables:**
   a. Geotechnical report.

I. P/PMS TASK 2340 - Develop & Review Practical Alternatives

1. **Objectives:**
   a. Understand plaza needs to develop a conceptual design satisfying multiple users.
   b. Facilitate federal agency input into the plaza foot print.
   c. Identify optimal Practical Alternatives subject to constraints defined by the environment, engineering requirements, social context and financial consideration.

2. **Work Expectations:**
   a. Continue data collection
   b. Meet with governmental agencies and stakeholders
   c. Refine constraint maps with more detailed data
   d. Continue Advisory Committee(s) activity
   e. Prepare for public and internal meetings
   f. Refine evaluation criteria
   g. Develop and distribute public involvement materials
   h. Coordinate with the Canadian Consultant in the use of route optimization technology such as Quantm (or approved equal) to support Practical Alternative development and analysis.
   i. Update and refine cost estimates
   j. Evaluate the plaza as a system of vehicle, cargo, passenger and information processes.
      i. **Border Security:** security issues and regulations. Coordinate with appropriate agencies to determine future border and infrastructure security needs.
      ii. **Vehicle Movement:** Address trucking operations, transportation planning, traffic engineering and bridge/structural engineering.

iii. **Information Processing:** Address information technology and border control regulations.
iv. **Staff Operations and Movement:** Address architectural design of industrial workplace facilities.
v. **Toll Collection:** Address toll plaza technology and design.

k. Assess the likely effects of anticipated changes in border agency procedures.
l. Develop and evaluate alternative plaza layouts
m. Analyze and model operations of the bridge plaza practical alternatives to include traffic simulation(s) for presentation to the public.
n. Continue to coordinate with property owners, including interviews.
o. Update displaced information.

3. **Assumptions:**
   a. The Practical Alternatives will be identified in cooperation with the Canadian consultant (s).
   b. The Steering Committee and the MDOT Project Program Review Board will approve the Practical Alternatives before the Public Hearing. The consultant will make presentations to communicate study information needed for decision-making.
   c. Close coordination with federal agencies will occur
   d. Negotiation may be complex

4. **Deliverables:**
   a. Practical Alternatives report with documentation on how the alternatives were generated and/or refined from the Illustrative Alternatives
   b. Team, Stakeholder, and public meetings.
   c. Periodic newsletters
   d. Practical Alternatives brochure/display materials
   e. Interim report on plaza objectives, measures of effectiveness, design proposals and other topics as they arise.

J. P/PMS TASK 2360 – Prepare DEIS

1. **Objectives:**
   a. Complete a DEIS for publication

2. **Work Expectations:**
   a. Complete preliminary draft of DEIS.
   b. Prepare Section 4(f)/6(f) documents if needed.
   c. Submit the preliminary draft for internal MDOT and Working Group review.
   d. Respond to MDOT and Working Group comments.
   e. Submit revised preliminary document to FHWA for review and approval.
   f. Incorporate FHWA and other co-operating agency comments into the

document.

3. **Deliverables:**
   a. A publishable DEIS/Section 4(f)/6(f) evaluation.

K. P/PMS TASK 2380 – Circulate DEIS

1. **Objectives:**
   a. Ensure the public has ample access to the DEIS and the opportunity for comment.

2. **Work Expectations:**
   a. Upon FHWA approval, print and distribute the DEIS.
   b. Prepare a brochure and speech for the public hearing.
   c. Prepare public hearing exhibits and video.
   d. Set date, secure site for public hearing and hire a court recorder.
   e. Prepare and publish legal notices and press release.
   f. Prepare Notice of Availability (NOA) in Federal Register.
   g. Hold pre-hearing Working Group meeting.
   h. Conduct hearing.
   i. Summarize comments from the public hearing and obtain transcript.
   j. Support the MDOT Public Hearings Officer's certification work.

3. **Assumptions:**
   a. The MDOT Public Hearings Officer will certify the public hearing.
   b. MDOT will transmit the NOA to FHWA for publication.

4. **Deliverables:**
   a. Hearing/brochure/display materials.
   b. Video for the public hearing.
   c. Comment summary.
   d. Transcript from the hearing.
   e. Printed DEIS.
   f. A public hearing.
   g. A hearing certification packet(s) with copies of the comments, the transcript and the summary.

L. P/PMS TASK 2510 – Determine Recommended Alternative

1. **Objectives:**
   a. Select a Recommended Alternative.

2. **Work Expectations:**
   a. Review comments from the circulation of the Draft EIS and public hearing.
   b. Prepare public comment analysis.
   c. Hold Working Group meeting to discuss comments.
   d. Refine evaluation criteria, if needed.

e. Further develop the proposed design for alternatives still under consideration. This involves changes to the alternatives still under consideration such as:
   i. Detailed design of sections of the study to address mitigation measures.
   ii. Adjustments in the proposed alignments.
   iii. Collection of additional data to evaluate proposed configurations.
f. Determine the Recommended Alternative.
g. Refine the proposed design for the Recommended Alternative.
h. Submit Draft Recommended Alternative report to the Working Group.
i. Organize documentation of recommendation for MDOT review and approval by PPRB (Project Program Review Board).
j. Prepare access justification report for the Recommended Alternative.

3. Assumptions:

a. MDOT staff will make the presentation(s) to PPRB.

4. Deliverables:

a. Access Justification Report
b. PPRB information
c. Recommended Alternative Report

M. P/PMS TASK 2525 – Prepare & Review Engineering Report

1. Objectives:

a. Develop construction phasing and study implementation recommendations for the Recommended Alternative.
b. Document engineering decisions in the context of planning, environmental, social and financial factors.

2. Work Expectations:

The Engineering Report will provide the following:

a. Design criteria
b. Assumptions used, and/or risk analyses of any design that is in accordance with and/or counter to typical MDOT guidelines and standards.
c. Maintaining traffic concepts
d. Construction phasing and constructability analysis
e. Right-of-way information will be limited to property mapping based on available information, with an estimate of the extent of potential acquisitions.
f. Soil boring data to verify that the alternative is viable and to determine any possibly hazardous soil locations. See additional expectation under P/PMS TASKS 2330 and 3530 for specific details.
g. Documentation of the coordination with the Subsurface Utility Engineering (SUE) contractor and identification of potential utility conflicts.

h. Hydraulic/Hydrologic and Scour Analysis (See additional expectation under P/PMS TASK 3520).
i. Thorough geometrics, operations review and analysis of Recommended Alternative to show that it can be designed, is buildable, and operable according to MDOT and AASHTO design and construction guides and standards.
j. Cost estimates for construction. Estimate to include construction, utility relocation, maintenance, etc.
k. Analysis of impacts to the local road system.
l. Horizontal, vertical and typical sections drawings of sufficient detail to perform a right of way estimate for the study corridor. These drawings will include all residential and commercial locations, and parcel information.

3. **Assumptions:**
   a. Structural details for the Recommended Alternative must meet the current MDOT & AASHTO LRFD design specifications, MS-23 loading.
   b. Every effort shall be made to minimize right-of-way impacts within the study limits and to adhere to current MDOT standard practices and design guidelines.
   c. Any deviation from MDOT/AASHTO design and construction standards and guidelines will be brought to the immediate attention of the MDOT Project Manager for resolution and confirmation before any continued analysis is performed.
   d. The geometric design shall be based on the criteria outlined in the MDOT Road Design Manual, MDOT Bridge Manual, and the 2001 AASHTO Policy on Geometric Design of Highways and Streets.
   e. A right of way cost estimate will be provided by the MDOT Real Estate Division.

4. **Deliverables:**
   a. Approved Engineering Report by MDOT & FHWA

N. P/PMS TASK 2530 – Prepare FEIS

1. **Objectives:**
   a. Complete an FEIS for publication

2. **Work Expectations:**
   a. Complete preliminary draft of FEIS.
   b. Prepare Section 4(f)/6(f) documents, if needed.
   c. Submit the preliminary draft for internal MDOT and Working Group review.
   d. Submit revised preliminary document to FHWA for review and approval.
   e. Incorporate FHWA and other co-operating agency comments into the

document.

f. Upon FHWA approval, print and distribute the FEIS.
g. Prepare and assist with publication Notice of Availability in the Federal Register.

3. **Assumptions:**
   a. MDOT transmits the NOA to FHWA for publication.

4. **Deliverables:**
   a. A publishable FEIS/Section 4(f)/6(f) evaluation.

O. P/PMS TASK 2550 – Obtain Record of Decision (ROD)

1. **Objectives:**
   a. Complete environmental clearance.

2. **Work Expectations:**
   a. Prepare document for printing.
   b. Update distribution list of recipients.
   c. Conclude mitigation development
   d. Prepare the ROD.
   e. Distribute the ROD.

3. **Assumptions:**
   a. MDOT will submit the ROD to FHWA for approval.

4. **Deliverables:**
   a. ROD
   b. Final Mitigation documentation.

P. P/PMS TASK 2810 – Conduct Initial Site Assessment (ISA) for Contamination

1. **Objectives:**
   a. Identify contaminated sites in the study area.
   b. Develop mitigation measures based on contamination present in order to avoid and minimize impacts to the environment and humans.

2. **Work Expectations:**
   a. Coordinate with MDOT Real Estate and the Project Manager.
   b. For Illustrative Alternatives provide a secondary source overview of contaminated material locations.
   c. Prepare an Initial Site Assessment (ISA) for Practical Alternatives. (See Program/Project Management System (P/PMS) Manual for details)
   d. Prepare contaminated sites sections for DEIS, FEIS and ROD.
   e. Prepare a worker Health and Safety plan for study participants such as archaeologists, who may have to work below ground during the study.

3. **Assumptions:**
   a. The study area has a high probability of having contaminated sites.
   b. Specific sites may need more intensive investigation, such as in-ground testing, to support study decision-making.

4. **Deliverables:**
   a. Initial Site Assessment Report
   b. Worker Health and Safety Plan for study participants.
   c. Mitigation measures to protect the environment and workers
   d. Final and Draft EIS sections.

Q. P/PMS TASK 2820 – Conduct Preliminary Site Investigation (PSI) for Contamination

1. **Objectives:**
   a. Obtain more detailed contaminated site information to facilitate decision-making.

2. **Work Expectations:**
   a. Prepare Preliminary Site Investigation Report for practical alternatives, if needed. (See P/PMS Manual for more details)
   b. Prepare a Worker Health and Safety Plan for construction staff who may encounter contaminated materials during below-ground activities.
   c. Prepare a utility plan for deep cuts near contamination.
   d. Develop mitigation plans.

3. **Deliverables:**
   a. Preliminary Site Investigation Report
   b. Worker Health and Safety Plan
   c. Utility Plan for deep cuts near contamination
   d. Mitigation measures
   e. Final and Draft EIS section(s).

R. P/PMS TASK 3310 – Prepare Aerial Topographic Mapping (See Appendix E1 & E2)

S. P/PMS TASK 3320 – Conduct Photogrammetric Control Survey (See Appendix E2)

T. P/PMS TASK 3330 – Conduct Design Survey (See Appendix E1 & E2)

U. P/PMS TASK 3350 – Conduct Hydraulics Survey (See Appendix E1 & E2)

V. P/PMS TASK 4510 – Conduct ROW Survey (See Appendix E1 & E2)

W. P/PMS TASK 3370 – Prepare Structure Study

1. **Objectives:**
   a. To provide the following for each Practical Alternative:
      i. Structure location, type and size
      ii. Identify limitations including construction related issues
      iii. Structure clearances
      iv. Foundation specifics including elevations and location

2. **Work Expectations:**
   a. Obtain the geotechnical recommendation report
   b. Obtain available survey data for each location where structure will be considered.
   c. Obtain reports of all other information necessary for the structure studies such as traffic reports, etc.
   d. Perform preliminary design and select structure alternatives for each proposed location.
   e. Determine construction issues, limitations and cost estimate for each alternative.

3. **Assumptions:**
   a. Variation in structure locations is limited and no significant changes will be made to affect the overall concept of the study.

4. **Deliverables:**
   a. A study plan and proposal for each structure type considered that contains:
      i. Location, type and size
      ii. Structure specific data including foundation design and recommendation.
      iii. Constructability issues and limitations

X. P/PMS TASK 3520 – Conduct Hydraulic/Hydrologic and Scour Analysis

1. **Objectives:**
   a. To gather existing hydraulic and hydrology data for the related watercourses and flood plains.
   b. Assess available data and its relevancy to the proposed alternatives.

2. **Work Expectations:**
   a. Gather necessary hydraulic/hydrologic data for structure alternatives using existing sources such as flood insurance studies and hydraulic analysis for previous structures.
   b. Prepare report summarizing the data and analyzing the data in relation to structure alternatives.

3. **Assumptions:**
   a. The existing available data will be sufficient for the study and no hydraulic survey will be available at this stage.

4. **Deliverables:**
   a. A report containing the following:
      i. Information on the source of data including the type of use and the date obtained.
      ii. An analysis of the data in regard to the limitations such as flood plain width, high water surface for structure alternatives.

Y. P/PMS TASK 3530 – Conduct Structure Foundation Investigation

1. **Objectives:**
   a. To provide a geotechnical recommendation report on the type of foundations to be used for proposed structure alternatives.

2. **Work Expectations:**
   a. Obtain and study the EPE geotechnical data report
   b. Identify and confirm if the existing data from the report is sufficient for a preliminary geotechnical analysis
   c. In cases where the existing data is not adequate, an effort should be made to supplement the data through assumptions and/or additional existing data.
   d. Use the geotechnical data to analyze foundation types to be considered for different structure alternatives.
   e. Prepare geotechnical recommendation report for structure study alternatives.

3. **Deliverables:**
   a. A report containing the followings:
      i. A summary of the geotechnical data used for foundation analysis
      ii. Appropriate foundation types recommended for each alternative or type of structure
      iii. Any special treatment required for each foundation case or alternative
      iv. Recommendation on any temporary foundation needs during construction

Z. P/PMS TASK 3710 – Develop Required Mitigation

1. **Objectives:**
   a. Obtain resource agency agreement with proposed mitigation.

2. **Work Expectations:**
   a. Prepare Standard Mitigation
   b. Prepare Special Mitigation

c. Prepare Mitigation Summary – Green Sheet (See Appendix J), to be included in the DEIS and FEIS.

3. **Deliverables:**
   a. Completed Green Sheet
   b. Any MOA's required by agencies
   c. Any MOU's required by agencies
   d. Preliminary layout and design for wetland creation, if needed.