

| | | | | |
|--|---|--|--|---|
| Local Agency County of Lake | L O C A L A G E N C Y |  Illinois Department of Transportation | C O N S U L T A N T | Consultant TranSystems Corporation |
| County Lake | | | | Address 1475 East Woodfield Road Suite 600 |
| Section 09-00174-05-CH | | | | City Schaumburg |
| Project No. CMM-9003(930) | | | | State IL |
| Job No. D-91-189-12 | | | | Zip Code 60173 |
| Contact Name/Phone/E-mail Address Rich McMorris 847-377-7400 RMcMorris@lakecountvil.gov | | | | Contact Name/Phone/E-mail Address Jeffrey Hall 847-407-5254 irhall@transystems.com |

THIS AGREEMENT is made and entered into this _____ day of _____, _____ between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the PROJECT. Federal-aid funds allotted to the LA by the state of Illinois under the general supervision of the Illinois Department of Transportation (STATE) will be used entirely or in part to finance engineering services as described under AGREEMENT PROVISIONS.

Project Description

Name Hart Road Route FAU 2549 Length 0.88 mi Structure No. _____
Termini At U.S. Route 14 (Northwest Highway)

Description The project includes intersection improvements at Hart Road at U.S. Route 14 that include channelization improvements, intersection radii improvements, signal modernization, pavement widening, and railroad crossing safety improvements.

Agreement Provisions

I. THE ENGINEER AGREES,

1. To perform or be responsible for the performance, in accordance with STATE approved design standards and policies, of engineering services for the LA for the proposed improvement herein described.
2. To attend any and all meetings and visit the site of the proposed improvement at any reasonable time when requested by representatives of the LA or STATE.
3. To complete the services herein described within 999 calendar days from the date of the Notice to Proceed from the LA, excluding from consideration periods of delay caused by circumstances beyond the control of the ENGINEER.
4. The classifications of the employees used in the work should be consistent with the employee classifications and estimated man-hours shown in EXHIBIT A. If higher-salaried personnel of the firm, including the Principal Engineer, perform services that are indicated in Exhibit A to be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the payroll rate for the work performed.
5. That the ENGINEER is qualified technically and is entirely conversant with the design standards and policies applicable for the PROJECT; and that the ENGINEER has sufficient properly trained, organized and experienced personnel to perform the services enumerated herein.
6. That the ENGINEER shall be responsible for the accuracy of the work and shall promptly make necessary revisions or corrections resulting from the ENGINEER's errors, omissions or negligent acts without additional compensation. Acceptance of work by the STATE will not relieve the ENGINEER of the responsibility to make subsequent correction of any such errors or omissions or for clarification of any ambiguities.
7. That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will affix the ENGINEER's professional seal when such seal is required by law. Plans for structures to be built as a part of the improvement will be prepared under the supervision of a registered structural engineer and will affix structural engineer seal when such seal is required by law. It will be the ENGINEER's responsibility to affix the proper seal as required by the Bureau of Local Roads and Streets manual published by the STATE.
8. That the ENGINEER will comply with applicable federal statutes, state of Illinois statutes, and local laws or ordinances of the LA.

9. The undersigned certifies neither the ENGINEER nor I have:
- employed or retained for commission, percentage, brokerage, contingent fee or other considerations, any firm or person (other than a bona fide employee working solely for me or the above ENGINEER) to solicit or secure this AGREEMENT,
 - agreed, as an express or implied condition for obtaining this AGREEMENT, to employ or retain the services of any firm or person in connection with carrying out the AGREEMENT or
 - paid, or agreed to pay any firm, organization or person (other than a bona fide employee working solely for me or the above ENGINEER) any fee, contribution, donation or consideration of any kind for, or in connection with, procuring or carrying out the AGREEMENT.
 - are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency,
 - have not within a three-year period preceding the AGREEMENT been convicted of or had a civil judgment rendered against them for commission of fraud or criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) 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,
 - are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (e) and
 - have not within a three-year period preceding this AGREEMENT had one or more public transactions (Federal, State or local) terminated for cause or default.
10. To pay its subconsultants for satisfactory performance no later than 30 days from receipt of each payment from the LA.
11. To submit all invoices to the LA within one year of the completion of the work called for in this AGREEMENT or any subsequent Amendment or Supplement.
12. To submit BLR 05613, Engineering Payment Report, to the STATE upon completion of the project (Exhibit B).
13. Scope of Services to be provided by the ENGINEER:
- Make such detailed surveys as are necessary for the planning and design of the PROJECT.
 - Make stream and flood plain hydraulic surveys and gather both existing bridge upstream and downstream high water data and flood flow histories.
 - Prepare applications for U.S. Army Corps of Engineers Permit, Illinois Department of Natural Resources Office of Water Resources Permit and Illinois Environmental Protection Agency Section 404 Water Quality Certification.
 - Design and/or approve cofferdams and superstructure shop drawings.
 - Prepare Bridge Condition Report and Preliminary Bridge Design and Hydraulic Report, (including economic analysis of bridge or culvert types and high water effects on roadway overflows and bridge approaches).
 - Prepare the necessary environmental and planning documents including the Project Development Report, Environmental Class of Action Determination or Environmental Assessment, State Clearinghouse, Substate Clearinghouse and all necessary environmental clearances.
 - Make such soil surveys or subsurface investigations including borings and soil profiles as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations to be made in accordance with the current Standard Specifications for Road and Bridge Construction, Bureau of Local Roads and Streets Administrative Policies, Federal-Aid Procedures for Local Highway Improvements or any other applicable requirements of the STATE.
 - Analyze and evaluate the soil surveys and structure borings to determine the roadway structural design and bridge foundation.
 - Prepare preliminary roadway and drainage structure plans and meet with representatives of the LA and STATE at the site of the improvement for review of plans prior to the establishment of final vertical and horizontal alignment, location and size of drainage structures, and compliance with applicable design requirements and policies.
 - Make or cause to be made such traffic studies and counts and special intersection studies as may be required to furnish sufficient data for the design of the proposed improvement.
 - Complete the general and detailed plans, special provisions and estimate of cost. Contract plans shall be prepared in accordance with the guidelines contained in the Bureau of Local Roads and Streets manual. The special provisions and detailed estimate of cost shall be furnished in quadruplicate.
 - Furnish the LA with survey and drafts in quadruplicate all necessary right-of-way dedications, construction easements and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.

II. THE LA AGREES,

1. To furnish the ENGINEER all presently available survey data and information
2. To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT, on the basis of the following compensation formulas:

Cost Plus Fixed Fee CPFF = 14.5%[DL + R(DL) + OH(DL) + IHDC], or
 CPFF = 14.5%[DL + R(DL) + 1.4(DL) + IHDC], or
 CPFF = 14.5%[(2.3 + R)DL + IHDC]

Where: DL = Direct Labor
 IHDC = In House Direct Costs
 OH = Consultant Firm's Actual Overhead Factor
 R = Complexity Factor

Specific Rate (Pay per element)

Lump Sum _____

3. To pay the ENGINEER using one of the following methods as required by 49 CFR part 26 and 605 ILCS 5/5-409:

With Retainage

- a) **For the first 50% of completed work**, and upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LA, monthly payments for the work performed shall be due and payable to the ENGINEER, such payments to be equal to 90% of the value of the partially completed work minus all previous partial payments made to the ENGINEER.
- b) **After 50% of the work is completed**, and upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LA, monthly payments covering work performed shall be due and payable to the ENGINEER, such payments to be equal to 95% of the value of the partially completed work minus all previous partial payments made to the ENGINEER.
- c) **Final Payment** – Upon approval of the work by the LA but not later than 60 days after the work is completed and reports have been made and accepted by the LA and the STATE, a sum of money equal to the basic fee as determined in this AGREEMENT less the total of the amounts of partial payments previously paid to the ENGINEER shall be due and payable to the ENGINEER.

Without Retainage

- a) **For progressive payments** – Upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LA, monthly payments for the work performed shall be due and payable to the ENGINEER, such payments to be equal to the value of the partially completed work minus all previous partial payments made to the ENGINEER.
- b) **Final Payment** – Upon approval of the work by the LA but not later than 60 days after the work is completed and reports have been made and accepted by the LA and STATE, a sum of money equal to the basic fee as determined in this AGREEMENT less the total of the amounts of partial payments previously paid to the ENGINEER shall be due and payable to the ENGINEER.

4. The recipient shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any 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 DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR part 26 and as approved by 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 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 (31U.S.C. 3801 et seq.).

III. IT IS MUTALLY AGREED,

1. That no work shall be commenced by the ENGINEER prior to issuance by the LA of a written Notice to Proceed.
2. That tracings, plans, specifications, estimates, maps and other documents prepared by the ENGINEER in accordance with this AGREEMENT shall be delivered to and become the property of the LA and that basic survey notes, sketches, charts and other data prepared or obtained in accordance with this AGREEMENT shall be made available, upon request, to the LA or to the STATE, without restriction or limitation as to their use.

3. That all reports, plans, estimates and special provisions furnished by the ENGINEER shall be in accordance with the current Standard Specifications for Road and Bridge Construction, Bureau of Local Roads and Streets Administrative Policies, Federal-Aid Procedures for Local Highway Improvements or any other applicable requirements of the STATE, it being understood that all such furnished documents shall be approved by the LA and the STATE before final acceptance. During the performance of the engineering services herein provided for, the ENGINEER shall be responsible for any loss or damage to the documents herein enumerated while they are in the ENGINEER's possession and any such loss or damage shall be restored at the ENGINEER's expense.
4. That none of the services to be furnished by the ENGINEER shall be sublet, assigned or transferred to any other party or parties without written consent of the LA. The consent to sublet, assign or otherwise transfer any portion of the services to be furnished by the ENGINEER shall not be construed to relieve the ENGINEER of any responsibility for the fulfillment of this agreement.
5. To maintain, for a minimum of 3 years after the completion of the contract, adequate books, records and supporting documents to verify the amounts, recipients and uses of all disbursements of funds passing in conjunction with the contract; the contract and all books, records and supporting documents related to the contract shall be available for review and audit by the Auditor General and the STATE; and to provide full access to all relevant materials. Failure to maintain the books, records and supporting documents required by this section shall establish a presumption in favor of the STATE for the recovery of any funds paid by the STATE under the contract for which adequate books, records and supporting documentation are not available to support their purported disbursement.
6. The payment by the LA in accordance with numbered paragraph 3 of Section II will be considered payment in full for all services rendered in accordance with this AGREEMENT whether or not they be actually enumerated in this AGREEMENT.
7. That the ENGINEER shall be responsible for any and all damages to property or persons arising out of an error, omission and/or negligent act in the prosecution of the ENGINEER's work and shall indemnify and save harmless the LA, the STATE, and their officers, agents and employees from all suits, claims, actions or damages of any nature whatsoever resulting there from. These indemnities shall not be limited by the listing of any insurance policy.
8. This AGREEMENT may be terminated by the LA upon giving notice in writing to the ENGINEER at the ENGINEER's last known post office address. Upon such termination, the ENGINEER shall cause to be delivered to the LA all drawings, plats, surveys, reports, permits, agreements, soils and foundation analysis, provisions, specifications, partial and completed estimates and data, if any from soil survey and subsurface investigation with the understanding that all such material becomes the property of the LA. The LA will be responsible for reimbursement of all eligible expenses to date of the written notice of termination.
9. This certification is required by the Drug Free Workplace Act (30LCS 580). The Drug Free Workplace Act requires that no grantee or contractor shall receive a grant or be considered for the purpose of being awarded a contract for the procurement of any property or service from the State unless that grantee or contractor will provide a drug free workplace. False certification or violation of the certification may result in sanctions including, but not limited to, suspension of contract or grant payments, termination of a contract or grant and debarment of the contracting or grant opportunities with the State for at least one (1) year but no more than five (5) years.

For the purpose of this certification, "grantee" or "contractor" means a corporation, partnership or other entity with twenty-five (25) or more employees at the time of issuing the grant, or a department, division or other unit thereof, directly responsible for the specific performance under a contract or grant of \$5,000 or more from the State, as defined in the Act.

The contractor/grantee certifies and agrees that it will provide a drug free workplace by:

- a. Publishing a statement:
 - (1) Notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance, including cannabis, is prohibited in the grantee's or contractor's workplace.
 - (2) Specifying the actions that will be taken against employees for violations of such prohibition.
 - (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will:
 - (a) abide by the terms of the statement; and
 - (b) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
- b. Establishing a drug free awareness program to inform employees about:
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's or contractor's policy of maintaining a drug free workplace;
 - (3) Any available drug counseling, rehabilitation and employee assistance program; and
 - (4) The penalties that may be imposed upon an employee for drug violations.
- c. Providing a copy of the statement required by subparagraph (a) to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.
- d. Notifying the contracting or granting agency within ten (10) days after receiving notice under part (B) of paragraph (3) of subsection (a) above from an employee or otherwise receiving actual notice of such conviction.
- e. Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by,
- f. Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.
- g. Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

10. The ENGINEER or subconsultant shall not discriminate on the basis of race, color, national origin or sex in the performance of this AGREEMENT. The ENGINEER shall carry out applicable requirements of 49 CFR part 26 in the administration of DOT assisted contracts. Failure by the ENGINEER to carry out these requirements is a material breach of this AGREEMENT, which may result in the termination of this AGREEMENT or such other remedy as the LA deems appropriate.

Agreement Summary

| Prime Consultant: | TIN Number | Agreement Amount |
|--------------------------------|------------|------------------|
| TranSystems Corporation | 43-0839725 | \$691,860.45 |
| | | |
| Sub-Consultants: | TIN Number | Agreement Amount |
| Jorgensen & Associates, Inc. | 36-3668574 | \$65,576.29 |
| Mathewson Right of Way Company | 20-3870734 | \$90,000.00 |
| Huff & Huff Inc | 36-3044842 | \$22,709.01 |
| Wang Engineering, Inc | 36-3191909 | \$57,458.56 |
| Sub-Consultant Total: | | \$235,743.86 |
| Prime Consultant Total: | | \$691,860.45 |
| Total for all Work: | | \$927,604.31 |

Executed by the LA:

Lake County Division of Transportation

(Municipality/Township/County)

ATTEST:

By: _____
 _____ Clerk

By: _____
 Title: _____

(SEAL)

Executed by the ENGINEER:

ATTEST:

By: *[Signature]*
 Title: Assistant Vice President

TranSystems Corporation
 By: *[Signature]*
 Title: Senior Vice President

Exhibit A - Preliminary Engineering

Route: Hart Road at U.S. Route 14
 Local Agency: Lake County Division of Transportation
 (Municipality/Township/County)
 Section: 09-00174-05-CH
 Project: CMM-9003(930)
 Job No.: D-91-189-12

*Firms approved rates on file with IDOT's
 Bureau of Accounting and Auditing:
 Overhead Rate (OH) 151.34 %
 Complexity Factor (R) 0.00
 Calendar Days 999

Method of Compensation:
 14.5% [DL + R(DL) + OH(DL) + IHDC]
 14.5% [DL + R(DL) + 1.4(DL) + IHDC]
 14.5% [(2.3 + R)DL + IHDC]
 Specific Rate
 Lump Sum

Cost Estimate of Consultant's Services in Dollars

| Element of Work | Employee Classification | Man-Hours | Payroll Rate | Payroll Costs (DL) | Overhead* | Services by Others | In-House Direct Costs (IHDC) | Profit | Total |
|------------------------|-------------------------|--------------|-----------------|----------------------|---------------------|----------------------|------------------------------|---------------------|----------------------|
| Coordination | Various (attached) | 340 | \$ 55.50 | \$ 18,868.85 | \$ 28,556.12 | \$ - | \$ 817.50 | \$ 6,995.16 | \$ 55,237.63 |
| Survey | Various (attached) | 212 | \$ 31.57 | \$ 6,693.16 | \$ 10,129.43 | \$ - | \$ 538.00 | \$ 2,517.29 | \$ 19,877.88 |
| Geotechnical | Various (attached) | 32 | \$ 49.26 | \$ 1,576.38 | \$ 2,385.70 | \$ 57,458.56 | \$ - | \$ 574.50 | \$ 61,995.14 |
| Preliminary Design | Various (attached) | 96 | \$ 41.15 | \$ 3,950.47 | \$ 5,978.64 | \$ - | \$ 136.00 | \$ 1,459.44 | \$ 11,524.55 |
| Structural Design | Various (attached) | 100 | \$ 56.37 | \$ 5,636.94 | \$ 8,530.95 | \$ - | \$ - | \$ 2,054.34 | \$ 16,222.23 |
| Permitting | Various (attached) | 328 | \$ 39.29 | \$ 12,886.05 | \$ 19,501.75 | \$ 22,709.01 | \$ 1,232.00 | \$ 4,874.87 | \$ 61,203.68 |
| Preliminary Plans | Various (attached) | 2,410 | \$ 39.70 | \$ 95,685.92 | \$144,811.07 | \$ - | \$ 2,002.50 | \$ 35,162.43 | \$ 277,661.91 |
| Pre-final Plans | Various (attached) | 1,257 | \$ 40.33 | \$ 50,690.42 | \$ 76,714.88 | \$ - | \$ 2,002.50 | \$ 18,764.13 | \$ 148,171.93 |
| Final Plans | Various (attached) | 513 | \$ 40.27 | \$ 20,656.22 | \$ 31,261.12 | \$ - | \$ 2,102.50 | \$ 7,832.88 | \$ 61,852.71 |
| Right-of-Way Services | Various (attached) | 100 | \$ 60.28 | \$ 6,028.03 | \$ 9,122.83 | \$ 155,576.29 | \$ - | \$ 2,196.87 | \$ 172,924.03 |
| Phase III Support | Various (attached) | 108 | \$ 56.37 | \$ 6,087.90 | \$ 9,213.42 | \$ - | \$ - | \$ 2,218.69 | \$ 17,520.01 |
| Project Administration | Various (attached) | 144 | \$ 56.50 | \$ 8,135.47 | \$ 12,312.22 | \$ - | \$ - | \$ 2,964.91 | \$ 23,412.60 |
| Totals | | 5,640 | \$ 42.00 | \$ 236,895.81 | \$358,518.12 | \$ 235,743.86 | \$ 8,831.00 | \$ 87,615.52 | \$ 927,604.31 |

**PAYROLL ESCALATION TABLE
FIXED RAISES**

FIRM NAME
PRIME/SUPPLEMENT

IranSystems Corporation

DATE 09/13/12
PTB NO.

CONTRACT TERM
START DATE 24 MONTHS
RAISE DATE 3/15/2013 4/1/2013

OVERHEAD RATE 151.34%
COMPLEXITY FACTOR 0
% OF RAISE 3.00%

ESCALATION PER YEAR

3/15/2013 - 4/1/2013

1

24

= 4.17%
= 1.0429

4/2/2013 - 4/1/2014

12

24

= 51.50%

4/2/2014 - 3/1/2015

11

24

= 48.62%

The total escalation for this project would be:

4.29%

AVERAGE HOURLY PROJECT RATES

FIRM TransSystems Corporation

PSB _____

PRIME/SUPPLEMENT _____

DATE 09/13/12

SHEET 1 OF 3

| PAYROLL CLASSIFICATION | AVG HOURLY RATES | | | TOTAL PROJECT RATES | | | | | | Coordination | | | Survey | | | Geotechnical | | | Preliminary Design | | | Structural Design | | | |
|-------------------------------|------------------|---------|----------|---------------------|---------|----------|-------|---------|----------|--------------|---------|----------|--------|---------|----------|--------------|---------|----------|--------------------|---------|----------|-------------------|---------|----------|--|
| | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | |
| Project Manager (Highway) | 877 | 15.55% | 10.29 | 162 | 47.65% | 31.52 | 24 | | | 8 | 25.00% | 16.54 | 10 | 10.42% | 6.89 | 50 | 50.00% | 33.08 | | | | | | | |
| Project Engineer (Highway) | 58 | 1.03% | 0.56 | | | | | | | 8 | 25.00% | 13.60 | | | | | | | | | | | | | |
| Design Engineer III (Highway) | 1436 | 25.46% | 11.86 | 160 | 47.06% | 21.92 | 24 | 11.32% | 5.27 | 8 | 25.00% | 11.65 | 43 | 44.79% | 20.87 | 50 | 50.00% | 23.29 | | | | | | | |
| Design Engineer II (Highway) | 1091 | 19.34% | 7.50 | 18 | 5.29% | 2.05 | | | | | | | | | | | | | | | | | | | |
| Design Engineer I (Highway) | 1218 | 21.60% | 6.46 | | | | 24 | 11.32% | 3.38 | 8 | 25.00% | 7.48 | 43 | 44.79% | 13.39 | | | | | | | | | | |
| Survey Crew Chief | 82 | 1.45% | 0.49 | | | | 82 | 38.68% | 12.95 | | | | | | | | | | | | | | | | |
| CADD Technician III | 772 | 13.69% | 4.35 | | | | | | | | | | | | | | | | | | | | | | |
| CADD Technician I | 82 | 1.45% | 0.37 | | | | 82 | 38.68% | 9.96 | | | | | | | | | | | | | | | | |
| Administrative Assistant | 24 | 0.43% | 0.12 | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | | | | | </ | | | | | | | | | | | | | | | | | | | |



Firm Name: TranSystems PTB/Item No: _____

REQUIRED – DIRECT COSTS WILL ONLY BE ACCEPTED FOR INCLUSION IN CONTRACT WHEN DOCUMENTED ON THIS FORM.
(Indicate only rate and quantities for this specific project.)

| Item | Allowable | Contract (1) Rate | Quantity (n/a for work orders) | Total |
|--|--|----------------------|--------------------------------------|-------------------|
| Per Diem | Up to State Rate Maximum | | | \$0.00 |
| Lodging (Overnight) | Up to State Rate Maximum | | | \$0.00 |
| Lodging (Extended) | Actual Cost (based on IDOT's and firm's policy) | | | \$0.00 |
| Air Fare Coach Rate (with two weeks' notice) | As Approved | | | \$0.00 |
| Vehicles: | | \$0.55 | 1,660.00 | |
| Mileage | Up to State Rate Maximum | | | \$913.00 |
| Daily Rate (owned or leased) | \$45/day | \$45.00 | 10.00 | \$450.00 |
| Overtime | (Premium Portion) | | | \$0.00 |
| Tolls | Actual Cost | | | \$0.00 |
| Digital Photo Processing | Actual Cost | | | \$0.00 |
| Photo Processing | Actual Cost | | | \$0.00 |
| Cell Phones – (traffic systems, survey, phase III only) | \$70/month/phone (maximum) – Phase III (max. of three without IDOT approval) | | | \$0.00 |
| Telephone Usage (traffic system monitoring) | Actual Cost | | | \$0.00 |
| 2-Way Radio (survey or phase III only) | Actual Cost | | | \$0.00 |
| Overnight Delivery/Postage/Courier Service | Actual Cost | \$25.00 | 45.00 | \$1,125.00 |
| Copies of Deliverables/Mylars (in-house) | Actual Cost | | | \$0.00 |
| Copies of Deliverables/Mylars (outside) | Actual Cost | \$5.00 | 20.00 | \$100.00 |
| Specific Insurance (required for project) | Actual Cost | | | \$0.00 |
| CADD | Actual Cost (max. \$15.00/hour) | | | \$0.00 |
| Monuments (permanent) | Actual Cost | | | \$0.00 |
| Advertisements | Actual Cost | | | \$0.00 |
| Web Site | Actual Cost | | | \$0.00 |
| Facility Rental for Public Meetings & Exhibits/Renderings & AV | Actual Cost | | | \$0.00 |
| Transcriptions (specific to project) | Actual Cost | | | \$0.00 |
| Recording Fees | Actual Cost | | | \$0.00 |
| Courthouse Fees | Actual Cost | | | \$0.00 |
| Testing of Soil Samples | Actual Cost | | | \$0.00 |
| Lab Services | Actual Cost | | | \$0.00 |
| Storm Sewer Cleaning and Televising | Actual Cost (requires 2-3 quotes) | | | \$0.00 |
| Traffic Control and Protection | Actual Cost (requires 2-3 quotes) | | | \$0.00 |
| Aerial Photography and Mapping | Actual Cost (requires 2-3 quotes) | | | \$0.00 |
| Utility Exploratory Trenching | Actual Cost (requires 2-3 quotes) | | | \$0.00 |
| Shift Differential | Actual Cost (based on firm's policy) | | | \$0.00 |
| PROJECT Site Travel | Actual Cost (based on IDOT's and firm's policy) | | | \$0.00 |
| | Actual Cost (requires 2-3 quotes) | | | \$0.00 |
| | Actual Cost (requires 2-3 quotes) | | | \$0.00 |
| | Include 2-3 vendor quotes and explanation for necessity. | | | \$0.00 |
| Printing/Copying 11x17 (color) | Actual Cost | \$0.10 | 21,030.00 | \$2,103.00 |
| Printing/Copying Full Size | Actual Cost | \$0.60 | 6,900.00 | \$4,140.00 |
| | | | | \$0.00 |
| TOTAL | | | | \$8,831.00 |

1) Used to determine upper limit of compensation for direct cost. Unless maximum is specified under allowable, bill at actual cost.

EXHIBIT C

SCOPE OF SERVICES

EXHIBIT C - PROJECT SCOPE OF SERVICES

Hart Road at U.S. Route 14 (Northwest Highway)

Phase II Engineering

Lake County Division of Transportation

Section 09-00174-05-CH

September 12, 2012

The intersection of Hart Road and U.S. Route 14 (Northwest Highway) is to be improved. U.S. Route 14 is under the jurisdiction of the Illinois Department of Transportation (IDOT), the north section of Hart Road is under the jurisdiction of the Village of Barrington (Village), and the south section of Hart Road is under the jurisdiction of the Lake County Division of Transportation (LCDOT).

The project consists of providing design engineering services for the preparation of contract plans and documents for the intersection improvements at Hart Road and U.S. Route 14 (Northwest Highway). The following is a summary of the items that are included in the proposed scope of services:

1. Coordination

- a. Meet and coordinate with LCDOT (Eight meetings assumed).
- b. Meet and coordinate with IDOT (Four meetings assumed).
- c. Meet and coordinate with Union Pacific Railroad and ICC (Two meetings assumed).
- d. Meet and coordinate with the Lake County Stormwater Management Commission (LCSMC) (Three meetings assumed).
- e. Meet and coordinate with the Village of Barrington (Three meetings assumed).
- f. Meet and coordinate with Barrington High School (One meeting assumed).
- g. Meet and coordinate with Wickstrom (Two meetings assumed).
- h. Attend IDOT Right-of-way kick-off meeting. (One meeting assumed)
- i. Coordinate with utility companies regarding utility relocations. Plans to be submitted to utility companies at the preliminary, pre-final, and final submittals. In addition, meet with utility companies regarding utility relocations after plan submittals (Three meetings assumed).
- j. Obtain existing roadway plans, right-of-way data, development plans, existing condition surveys, and utility atlases.
- k. No public meetings are anticipated. No meetings with the Lake County Forest Preserve District are anticipated.

2. Survey

- a. Initial field survey was conducted during Phase I in 2009. Horizontal and vertical control was established in Phase I.
- b. Tree survey was conducted during Phase I.
- c. Stake proposed centerline on U.S. Route 14 and Hart Road every 100 feet once plans approved.
- d. Conduct survey for control point ties.
- e. Conduct full topographic survey field check.
- f. Conduct pick-up survey based on field check.
- g. Conduct survey of structure boring locations.
- h. Complete digital terrain model, incorporating Phase I full survey and pick-up survey.

3. Geotechnical

Geotechnical drilling services including laboratory testing and engineering analysis and recommendations are to be provided by Wang Engineering (see attached scope).

EXHIBIT C - PROJECT SCOPE OF SERVICES

Hart Road at U.S. Route 14 (Northwest Highway)

Phase II Engineering

Lake County Division of Transportation

Section 09-00174-05-CH

September 12, 2012

- a. Complete pavement design for U.S. Route 14 and Hart Road incorporating geotechnical results.
- b. Incorporate geotechnical recommendations into contract plans as necessary.

4. Preliminary Design

- a. Analyze maintenance of traffic and determine preliminary maintenance of traffic design, staged construction and detour routes. Coordinate detour route with IDOT.
- b. Prepare preliminary guardrail analysis.

5. Structural Design

- a. Prepare TS&L for retaining wall at the southwest corner of Hart Road and U.S. Route 14.

6. Permitting

- a. Wetland delineation was conducted during Phase I in September 2009 with an update in October 2011. A wetland delineation report was performed in Phase I. A jurisdictional determination was completed by Lake County Stormwater Management Commission on July 13, 2010. Wetland banking will be used by the County as mitigation of wetland impacts. Coordinate wetland banking with LCDOT.
- b. Prepare Section ACOE 404 and IEPA 401 Permit for wetland impacts (Prepared by subconsultant: Huff & Huff, Inc.) Provide engineering services and clarify questions or comments for submittal of 404 Permit Joint Application.
- c. Prepare NRCS Wetland Permit.
- d. Preliminary Site Investigation (PSI) will be completed by Huff & Huff, Inc. Incorporate recommendations into contract plans.
- e. Submit PESA Response for US 14 PESA for IDOT to complete PSI for US 14. Incorporate recommendations into contract plans.
- f. Submit application for NPDES Permit including Storm Water Pollution Prevention Plan and Notice of Intent.
- g. Submit IEPA Permit for water main relocations and submit IEPA Permit for sanitary sewer relocations.
- h. Prepare preliminary LCSMC Watershed Development Ordinance (WDO) permit including narrative and exhibits. Prepare permits for the following:
 1. Modifying watercourse draining 20 or more acres is required.
 2. Improvement within a floodplain is not required.
 3. Detention is required.
 4. Disturbing a total of 1 acre or more of wetland is not required but mitigation and coordination is required.
 5. Soil erosion and sediment control is required.
 6. Water quality measures are required.
- i. Prepare revised WDO permit, based on comments received from LCSMC. Submit pre-final WDO permit to LCSMC.
- j. Submit final WDO permit to LCSMC.
- k. Submit ICC Petition to ICC for approval.

EXHIBIT C - PROJECT SCOPE OF SERVICES

Hart Road at U.S. Route 14 (Northwest Highway)

Phase II Engineering

Lake County Division of Transportation

Section 09-00174-05-CH

September 12, 2012

- l. A Biological Resources signoff will be received in Phase I.
- m. An Agricultural Resources Permit is not required.
- n. A Cultural Resources Sign-off will be received in Phase I. An Environmental Survey Request Form will not be prepared.
- o. All permit fees will be paid by the County.

7. Preliminary Plans

- a. It is anticipated that the following sheets will be included in the contract plans. The plans will not include any special aesthetic features or treatments. All retaining walls will utilize the County standard form liner. Typical tree replacement and landscaping will be utilized using County preferred landscaping elements. No design services by a landscape architect will be provided.

| Sheet Description | No. of Sheets |
|--|---------------|
| Title Sheet | 1 |
| General Notes | 1 |
| Summary of Quantities | 6 |
| Existing and Proposed Typical Sections | 4 |
| Schedule of Quantities | 10 |
| Alignment, Ties and Benchmarks | 1 |
| Plan and Profile (1"=20') | 14 |
| Traffic Control Typical Sections | 3 |
| Suggested Staging Plan | 15 |
| Detour Route Plan | 2 |
| Erosion and Sediment Control Plan (1"=50') | 7 |
| Drainage and Utilities Plan (1"=20') | 14 |
| Water Main Plan (1"=20') | 3 |
| Sanitary Sewer Plan (1"=20') | 1 |
| Right-of-Way Plans | 6 |
| Intersection Paving Plan (1"=20') | 1 |
| Pavement Marking, Signing & Landscaping Plan (1"=20') | 7 |
| Hart Rd at U.S. 14 Temporary Signal and Cable Plans (1"=20') | 3 |
| Temporary Interconnect Plan and Schematic | 2 |
| Hart Rd at U.S. 14 Traffic Signal Plans (1"=20') | 2 |
| Hart Rd at U.S. 14 Cable Plans, Sequence of Operations, and Schedule of Quantities | 1 |

EXHIBIT C - PROJECT SCOPE OF SERVICES

Hart Road at U.S. Route 14 (Northwest Highway)

Phase II Engineering

Lake County Division of Transportation

Section 09-00174-05-CH

September 12, 2012

| Sheet Description | No. of Sheets |
|--|---------------|
| U.S. 14 at Western Traffic Signal Plans (1"=20') | 1 |
| U.S. 14 at Western Cable Plans, Sequence of Operations, and Schedule of Quantities | 1 |
| Signal Interconnect Plans and Interconnect Schematics | 2 |
| Traffic Signal District Details | 6 |
| Retaining Wall Plans | |
| -General Plan & Elevation | 3 |
| -Construction Staging | 1 |
| -Plan & Elevation | 3 |
| -Cross Section and Details | 4 |
| -Reinforcement Details | 2 |
| -Fence Details | 1 |
| -Soil Boring Logs | 4 |
| Project Details | 2 |
| Lake County Highway Standards (2 per sheet) | 20 |
| District One Details (1 per sheet) | 12 |
| Cross Sections (@ 50 ft stations, 1"=5' horizontal, 1"=5' vertical) | <u>32</u> |
| Totals | 198 |

- b. Prepare quantity calculations, estimate of cost based on current contract unit prices and estimate of construction time. Quantities will be categorized by funding source.
- c. Prepare special provisions, supplemental, recurring, Guide Bridge, BDE, LCDOT and project special provisions including status of utilities to be adjusted into IDOT format.
- d. Submit preliminary plans, estimate of cost, estimate of time and special provisions to the County, IDOT, LCSMC, Barrington, ICC, UPRR and utility companies for review.
- e. Perform independent Quality Assurance/Quality Control review of preliminary plans and documents.

8. Pre-Final Plans

- a. Prepare pre-final contract plans and documents based on comments received on preliminary plans.
- b. Update summary of quantities, estimate of cost and estimate of time for pre-final submittal.
- c. Update special provisions for pre-final submittal.
- d. Submit pre-final plans, estimate of cost, estimate of time and special provisions to the County, IDOT, LCSMC, Barrington, ICC, UPRR and utility companies for review.
- e. Perform independent Quality Assurance/Quality Control review of final plans and documents.

EXHIBIT C - PROJECT SCOPE OF SERVICES

Hart Road at U.S. Route 14 (Northwest Highway)

Phase II Engineering

Lake County Division of Transportation

Section 09-00174-05-CH

September 12, 2012

9. Final Plans

- a. Update final contract plans and documents based on comments received on pre-final plans.
- b. Update summary of quantities, estimate of cost and estimate of time for final submittal.
- c. Update special provisions for final submittal.
- d. Submit final plans, estimate of cost, estimate of time and special provisions to the County, IDOT, LCSMC, Barrington, ICC, UPRR and utility companies for review.
- e. Perform independent Quality Assurance/Quality Control review of final plans and documents.
- f. Process final contract plans and documents through IDOT in accordance with federal project letting schedule. Submit final plans, specs, cost estimate, and quantity calculations in electronic format to the County.

10. Right-of-Way Acquisition Services

- a. Plat of highways will be prepared by Jorgensen & Associates, Inc. detailed in the attached proposal.
- b. Negotiations, appraisals and review appraisals will be performed by Santacruz Associates detailed in the attached proposal.
- c. Provide engineering services and clarify questions or comments identified in the plat of highways and negotiation process.

11. Phase III Support

- a. Attend pre-construction meeting.
- b. Provide engineering services to review shop drawings, attend on-site meetings, answer questions about the intent of the design, and offer assistance to make design changes necessary during construction of the project.

12. Project Administration

- a. Provide internal project management and staffing
- b. Prepare monthly invoices for anticipated
- c. Maintain project schedule in Microsoft Project

EXHIBIT C-1

SUBCONSULTANT SERVICES
Jorgensen & Associates



JORGENSEN & ASSOCIATES, INC.
CONSTRUCTION and LAND SURVEYORS

Est. 1990

February 27, 2012

Ms. Jennifer M. Golemba, P.E.
TranSystems Corporation
1475 East Woodfield Road
Suite 600
Schaumburg, Illinois 60173-5440

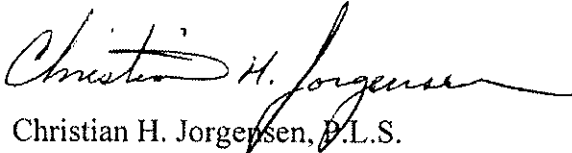
Re: Hart Road at U.S. Route 14 Survey Proposal

Dear Ms. Golemba:

Enclosed, please find our proposal to prepare a statutory plat of highways with legal descriptions for the referenced project.

I would like to thank you for considering Jorgensen & Associates for this project. We look forward to continuing our working relationship with your firm. Should you have any questions, comments or require any further information concerning our proposal, please feel free to call me at (847)356-3371.

Respectfully submitted,
Jorgensen & Associates, Inc.



Christian H. Jorgensen, P.L.S.
President

CHJ/pt

Enclosures

E:\TranSystems\US 14\LTR

Route: Hart Road
Section: @ U.S. Route 14
County: Lake
Job No.:

Exhibit "A"

Hourly Rate Range - Consultant's Regular Staff

| <u>Classification</u> | <u>From</u> | <u>To</u> |
|--|-------------|-----------|
| Principal, Manager, P.L.S. | 40.00 | 42.00 |
| Supervisor, Project Surveyor | 38.00 | 40.00 |
| Cadd Supervisor, Survey Party Chief, S.I.T., Survey Party Chief | 21.50 | 27.50 |
| Instrument Operator, Cadd Operator, assignable Clerical and Secretarial Labor | 14.00 | 19.00 |

Route: Hart Road
Section: @ U.S. Route 14
County: Lake
Job No.:

Exhibit "B"

Payroll Burden & Fringe Costs

| | <u>% of Direct Productive Payroll</u> |
|---|---|
| Federal Insurance Contributions Act _____ | 11.27% |
| State Unemployment Compensation _____ | 0.89% |
| Federal Unemployment Compensation _____ | 0.20% |
| Workmen's Compensation Insurance _____ | 1.59% |
| Paid Holidays, Vacation, Sick Leave, Personal Leave _____ | 10.85% |
| Bonus _____ | 4.55% |
| Pension _____ | 0.67% |
| Group Insurance _____ | <u>25.81%</u> |
| Total Payroll Burden & Fringe Costs | 55.83% |

Route: Hart Road
Section: @ U.S. Route 14
County: Lake
Job No.:

Exhibit "C"

Overhead and Indirect Costs

| | <u>% of Direct Productive Payroll</u> |
|---------------------------------------|---|
| Business Insurance _____ | 4.54% |
| Depreciation _____ | 12.69% |
| Indirect wages and salaries _____ | 37.59% |
| Reproductive and printing costs _____ | 0.06% |
| Office Supplies _____ | 2.69% |
| Computer Costs _____ | 0.16% |
| Professional Fees _____ | 1.33% |
| Telephone _____ | 1.63% |
| Fees, license & dues _____ | 1.08% |
| Repairs and maintenance _____ | 0.44% |
| Business space rent _____ | 4.11% |
| Facilities - capital _____ | 1.05% |
| Recruiting _____ | 0.01% |
| Survey Supplies _____ | 3.14% |
| Automobile/travel expense _____ | 1.96% |
| Equipment Rental _____ | 0.77% |
| Miscellaneous Expense _____ | 0.62% |
| State Income Tax _____ | 0.45% |
| Postage _____ | <u>0.24%</u> |
| Total Overhead | 74.56% |

Route: Hart Road
Section: @ U.S. Route 14
County: Lake
Job No.:

Exhibit "D"

Classification Types & Rates

Sheet 1 of 2

- A. Principal/Officer
- B. Supervisor, P.L.S.
- C. Survey Party Chief, S.I.T.
- D. Instrument Operator
- E. Cadd Supervisor
- F. Secretarial

Classification Rates used for Calculation of Fee

| | |
|---|-----------------|
| A. Principal/Officer | \$ 42.00 |
| B. Supervisor, P.L.S. | \$ 39.00 |
| C. Survey Party Chief, S.I.T. | \$ 21.50 |
| D. Instrument Operator | \$ 17.50 |
| E. Cadd Supervisor | \$ 26.50 |
| F. Secretarial | \$ 17.00 |

Route: Hart Road
Section: @ U.S. Route 14
County: Lake
Job No.:

Exhibit "D"

Average Hourly Rate Calculation

Sheet 2 of 2

| | | | | |
|----------------------------|----------------|----------------|---|-----------------|
| Principal/Officer | 2 hours | @ \$42.00/hour | = | \$ 84.00 |
| Supervisor, P.L.S. | 175 hours | @ \$39.00/hour | = | \$ 6,825.00 |
| Survey Party Chief, S.I.T. | 231 hours | @ \$21.50/hour | = | \$ 4,966.50 |
| Survey Party Chief | 12 hours | @ \$21.50/hour | = | \$ 258.00 |
| Instrument Operator | 231 hours | @ \$17.50/hour | = | \$ 4,042.50 |
| Instrument Operator | 12 hours | @ \$17.50/hour | = | \$ 210.00 |
| Cadd Supervisor | 220 hours | @ \$26.50/hour | = | \$ 5,830.00 |
| Secretarial | <u>4 hours</u> | @ \$17.00/hour | = | <u>\$ 68.00</u> |
| | 887 hours | | | \$ 22,284.00 |

$$\text{Average Hourly Rate} = \frac{\$22,284.00}{887} = \$25.12/\text{hour}$$

Route: Hart Road
 Section: At U.S. Route 14
 Project: Lake
 County: Lake
 Job No.:

COST ESTIMATE OF CONSULTANT'S SERVICES

Consultant: Jorgensen & Associates, Inc.
 Date: February 27, 2012
 No. of Parcels: 10
 Cost Plus Fixed Fee = 14.5% [DL + R(DL) + OH(DL) + IHDC]

| Item | Number of Man Hours (A) | Payroll (B) | Overhead & Fringe Benefits (C) | In-house Direct Costs (D) | Sub-Total (E) | Profit (F) | Services By Others | Total | Percent of Grand Total |
|--|-------------------------|--------------------|--------------------------------|---------------------------|--------------------|-------------------|--------------------|--------------------|------------------------|
| | | | | | | | | | |
| 1) Pre-Survey Phase | 5 | \$123.00 | \$160.38 | \$86.50 | \$369.88 | \$53.63 | \$3,200.00 | \$3,623.51 | 5.53% |
| 2) Survey Reconnaissance | 32 | \$624.00 | \$813.63 | \$55.00 | \$1,492.63 | \$216.43 | N/A | \$1,709.07 | 2.61% |
| 3) Project Survey Plan | 2 | \$53.00 | \$69.11 | \$0.00 | \$122.11 | \$17.71 | N/A | \$139.81 | 0.21% |
| 4) First Submittal Plat of Highways and Descriptions | 188 | \$5,332.00 | \$6,952.39 | \$75.00 | \$12,359.39 | \$1,792.11 | N/A | \$14,151.51 | 21.58% |
| 5) Survey (Field) | 454 | \$8,853.00 | \$11,543.43 | \$2,760.00 | \$23,156.43 | \$3,357.68 | N/A | \$26,514.11 | 40.43% |
| 6) Survey (Office) | 105 | \$3,807.50 | \$4,964.60 | \$0.00 | \$8,772.10 | \$1,271.95 | N/A | \$10,044.05 | 15.32% |
| 7) Final Submittal Plat of Highways and Descriptions | 26 | \$760.50 | \$991.62 | \$127.50 | \$1,879.62 | \$272.54 | N/A | \$2,152.16 | 3.28% |
| 8) Coordination Meetings | 2 | \$84.00 | \$109.53 | \$33.00 | \$226.53 | \$32.85 | N/A | \$259.37 | 0.40% |
| 9) QC/QA | 73 | \$2,647.00 | \$3,451.42 | \$0.00 | \$6,098.42 | \$884.27 | N/A | \$6,982.69 | 10.65% |
| TOTALS | 887 | \$22,284.00 | \$29,056.11 | \$3,137.00 | \$54,477.11 | \$7,899.18 | \$3,200.00 | \$65,576.29 | 100.00% |

Route: Hart Road
 Section: @ U.S. Route 14
 County: Lake
 Job No.:

**Manhour Breakdown
 Land Acquisition Estimate**

Length of Project

| | | | | |
|------------------|---|---------------------|---|--------------------------|
| Hart Road | = | <u>+ 3,500'</u> | = | <u>+ 0.663 mile</u> |
| U.S. Route 14 | = | <u>+ 3,800'</u> | = | <u>+ 0.720 mile</u> |
| Total Length | = | <u>+ 7,300'</u> | = | <u>+ 1.383 miles</u> |

10 Parcels: 4 Fee Simple & Temporary Easement, 1 Fee Simple & Temporary Easements-A, B & C, 1 Permanent Easement & Temporary Easement-A & B, 1 Permanent Easement-A & B and Temporary Easement-A, B & C and 3 Temporary Easement Only.

1. Pre-Survey Phase

Research available records

| | | | |
|----|-------------------|---|-------------|
| a. | Title Co. |) | |
| | |) | 4 MH |
| b. | Recorder's Office |) | |
| | |) | |
| c. | I.D.O.T. |) | |
| | |) | |
| d. | Utilities |) | |
| | |) | |
| e. | Private Surveyors |) | |
| | |) | |
| f. | Land Owners |) | <u>1 MH</u> |

Sub-total Item # 1 5 MH

2. Reconnaissance Survey 2 Men 32 MH

| | | | | |
|----|---|---|--|--------------|
| 3. | Project Survey Plan | | $\pm 2,640'$ /sheet-2 sheets | |
| a. | Alignment info |) | | |
| | |) | | |
| b. | Existing R.O.W. info |) | | |
| | |) | | |
| c. | Land line data |) | | |
| d. | Subdivision data |) | 1.0 hr./sht. x 2 = | <u>2 MH</u> |
| | | | Sub-total Item #3 | 2 MH |
| 4. | First Submittal Plat of Highways & Descriptions | | | |
| a. | Ownership info |) | | |
| | |) | | |
| b. | Total holding boundaries |) | | |
| | |) | | |
| c. | Total holding area listing |) | | 5 MH |
| | |) | | |
| d. | Private survey info |) | | |
| | |) | | |
| e. | Deed calculated closures |) | | |
| f. | Layout and drafting | | $\pm 750'$ /sht. ± 10 sheets 14 hrs./sheet x 10 = | 140 MH |
| | Total Holding sheets | | 4 hrs./sheet x 5 = | 20 MH |
| g. | Legal descriptions | | 23 descriptions | <u>23 MH</u> |
| | | | Sub-total Item #4 | 188 MH |

| | | | |
|----|-----------------|---|--------------|
| 5. | Survey (Field) | | |
| | a. | Monument center line alignments at 100 foot intervals | |
| | | Hart Road - 3,500' - 6 hrs. x 4 men = | 24 MH |
| | | U.S. Route 14 - 3,800' - 6 hrs. x 4 men = | 24 MH |
| | b. | Reference center line alignments | |
| | | 7 hours x 2 men = | 14 MH |
| | c. | Measure existing R.O.W., property & section lines | |
| | | 104 hours x 2 men = | 208 MH |
| | d. | Appraisal topography | |
| | | 52 hours x 2 men = | 104 MH |
| | e. | Monument & tie proposed right of way | |
| | | 40 hours x 2 men = | <u>80 MH</u> |
| | | Sub-total Item #5 | 454 MH |
| 6. | Survey (Office) | | |
| | a. | Compute traverse | |
| | | 10 hours x 1 man = | 10 MH |
| | b. | Compute existing R.O.W., property & section lines | |
| | | 75 hours x 1 man = | 75 MH |
| | c. | Compile appraisal topography | |
| | | 13 hours x 1 man = | 13 MH |
| | d. | Compute center line alignment | |
| | | 1 hour x 1 man = | 1 MH |
| | e. | Compute proposed right of way | |
| | | 6 hours x 1 man = | <u>6 MH</u> |
| | | Sub-total Item #6 | 105 MH |

| | | |
|----|--|-------------|
| 7. | Final Submittal Plat of Highways & Descriptions | |
| a. | Final drafting ± 15 sheets 12 hours x 1 man = | 12 MH |
| b. | Final descriptions 23 descriptions | 5 MH |
| c. | Prepare and Record Monument Records 2 Monument Records @ 3 hours each = | 6 MH |
| d. | Assembly of final papers | <u>3 MH</u> |
| | Sub-total Item #7 | 26 MH |
| 8. | Coordination Meetings | |
| | 1 meeting @ 2 hours = | 2 MH |
| 9. | QC/QA | |
| a. | Check preliminary plats 15 sheets | 45 MH |
| b. | Check preliminary legal descriptions 23 legal descriptions | 12 MH |
| c. | Check final plats 15 sheets | 12 MH |
| d. | Check final legal descriptions 23 legal descriptions | <u>4 MH</u> |
| | Total All Items | 887 MH |

Route: Hart Road
 Section: @ U.S. Route 14
 County: Lake
 Job No.:

Manhour Breakdown By Item

| <u>Item</u> | <u>Classification</u> | <u>Manhours</u> |
|--|----------------------------|-----------------|
| 1) Pre-Survey | Cadd Supervisor | 4 |
| | Secretarial | 1 |
| 2) Survey Reconnaissance | Survey Party Chief, S.I.T. | 16 |
| | Instrument Operator | 16 |
| 3) Project Survey Plan | Cadd Supervisor | 2 |
| 4) First Submittal Plat of Highways & Descriptions | Supervisor, P.L.S. | 28 |
| | Cadd Supervisor | 160 |
| 5) Survey (Field) | Survey Party Chief, S.I.T. | 215 |
| | Survey Party Chief | 12 |
| | Instrument Operator | 215 |
| | Instrument Operator | 12 |
| 6) Survey (Office) | Supervisor, P.L.S. | 82 |
| | Cadd Supervisor | 23 |
| 7) Final Submittal Plat of Highway & Descriptions | Supervisor, P.L.S. | 8 |
| | Cadd Supervisor | 15 |
| | Secretarial | 3 |
| 8) Coordination Meetings | Principal/Officer | 2 |
| 9) QC/QA | Surveyor, P.L.S. | 57 |
| | Cadd Supervisor | 16 |

Route: Hart Road
Section: @ U.S. Route 14
County: Lake
Job No.:

**Breakdown of
In House Direct Costs**

Item

1. Pre-Survey Phase

a. Trips to Recorder's Office – 1 ea.
± 30 miles/trip x 1 trip = ± 30 miles
± 30 miles @ \$0.55/mile = \$ 16.50

b. Miscellaneous Records from Recorder's
Office \$ 70.00

Sub-total Item #1 \$ 86.50

2. Reconnaissance Survey

a. Trips to project site – 2 ea.
± 50 miles/trip x 2 trips = ± 100 miles
± 100 miles @ \$0.55/mile = \$ 55.00

4. First Submittal Plat of Highways & Descriptions

a. Plat of Highways Mylars
15 sheets @ \$5.00/sheet = \$ 75.00

5. Survey (Field)

a. Trips to project site – 24 ea.
± 50 miles/trip x 24 trips = ± 1,200 miles
± 1,200 miles @ \$0.55/mile = \$ 660.00

b. Railroad flagger
\$800/day x 2 days = \$1,600.00

c. Railroad Right of Entry permit = \$ 500.00

Sub-total Item #5 \$2,760.00

7. Final Submittal Plat of Highways & Descriptions

| | |
|--|-----------------|
| a. Trip to County Recorder | |
| ± 30 miles/trip x 1 trip = ± 30 miles | |
| ± 30 miles @ \$0.55/mile = | \$ 16.50 |
| b. Record Monument Records | |
| 2 Monument Records @ \$39 each = | \$ 78.00 |
| c. Deliver Final Papers to District One office | |
| ± 60 miles/trip x 1 trip = ± 60 miles | |
| ± 60 miles @ \$0.55/mile = | <u>\$ 33.00</u> |
| | |
| Sub-total Item #7 | \$ 127.50 |

8. Coordination Meetings

| | |
|--|-----------------|
| a. Meetings at TranSystems' office – 1 ea. | |
| ± 60 miles/trip x 1 trip = ± 60 miles | |
| ± 60 miles @ \$0.55/mile = | <u>\$ 33.00</u> |
| | |
| Total All Items | \$3,137.00 |

Route: Hart Road
Section: @ U.S. Route 14
County: Lake
Job No.:

**Breakdown of
Services By Others**

Item

1. Pre-Survey Phase

| | |
|---|-------------|
| a. Commitment for Title Insurance Letters 10 Letters @ \$320.00 each = | \$ 3,200.00 |
|---|-------------|

EXHIBIT C-2

SUBCONSULTANT SERVICES
Mathewson Right of Way Company

**PROPOSAL FOR
RIGHT OF WAY CONSULTING SERVICES
Lake County
TranSystems**

1. Proposal of Mathewson Right of Way Company whose address is 30 North LaSalle Street, Suite 1726, Chicago, Illinois 60602 hereinafter referred to as "MROWCO" for the furnishing to TranSystems, on behalf of Lake County, hereinafter referred to as "COUNTY" certain right of way consulting services for the acquisition of right of way for the **Hart Road at US 14 Project**.
2. Negotiation services called for in this proposal will be conducted personally by Mark D. Mathewson whose qualifications have been approved by the Illinois Department of Transportation.
3. Said Negotiation Services shall be furnished by MROWCO on approximately ten (10) parcels plus land owned by the Union Pacific. The above parcel fee shall include all transportation, food, lodging, telephone, or any other operating expenses incurred by MROWCO in the performance of said services as herein set forth, excepting for those services set forth in Paragraph 10.
(*) Each parcel shall consist of one or more basic parcels of land required as right of way for highway purposes to be acquired in fee simple title, and such other easements (temporary or permanent) for uses incidental to construction of the highway but which are not considered as part of the highway right of way, all of which are under the same ownership involving a complete contiguous parcel.

MROWCO shall engage an Illinois Licensed Appraiser to prepare an appraisal report in accordance with all relevant IDOT policies and procedures.

MROWCO shall engage an Illinois Licensed Appraiser to provide appraisal review services in accordance with all relevant IDOT policies and procedures.

MROWCO will obtain later dated title commitments, title policies, as required, from an Illinois Licensed Title Company, as well as record conveyance documents.

| <u>Task</u> | <u>Parcel Fee</u> | <u>Parcels</u> | <u>Extension</u> |
|-------------------------|-------------------|----------------|------------------|
| Negotiation | \$3,000.00 | 10 | \$30,000.00 |
| Appraisal | \$2,600.00 | 10 | \$26,000.00 |
| Appraisal Review | \$1,400.00 | 10 | \$14,000.00 |
| Closing & Title Update | \$1,000.00 | 10 | \$10,000.00 |
| Total for 10 parcels: | | | \$80,000.00 |
| Union Pacific Railroad: | | | |
| Negotiation | | | \$5,000.00 |
| Appraisal | | | \$2,600.00 |
| Appraisal Review | | | \$1,400.00 |
| Closing & Title Update | | | \$1,000.00 |
| | | | |

Total for Union Pacific:

\$10,000.00

Sum total for all services shall not exceed \$90,000.00

4. COUNTY will furnish MROWCO with preliminary construction plans identifying required property. MROWCO will prepare or cause to be prepared title reports or evidence of ostensible ownership for each parcel. It is understood and agreed that the COUNTY shall be considered to be the sole owner of all plats, legal descriptions, ownership and occupancy records, forms of deeds and easements, title reports, and any and all other material furnished, prepared or obtained by MROWCO during the course of providing its services for each parcel assigned. Upon termination of this contract for any cause or upon completion of the acquisition of each parcel or upon request of COUNTY when acquisition is determined to be by Eminent Domain proceedings, MROWCO'S parcel file shall be returned to COUNTY. MROWCO'S parcel files shall be available for inspection or review of its contents by COUNTY, State or Federal Highway Administration personnel at any time.
5. MROWCO shall provide a copy of an appraisal of each parcel together with Improvement Disposition Values form to be submitted to the COUNTY for approval. In the case of an acquisition covering the displacement of any individual, family, business, farm operation, or the personal property thereof, the appropriate Relocation Introductory Letter and Brochure shall also be provided by COUNTY.
6. Where the acquisition of a parcel involves the displacement of an owner or tenant occupant from a residence or any personal property thereof, MROWCO shall notify the COUNTY or Illinois Department of Transportation Relocation representative no less than five (5) days prior to the intended date of initiation of negotiation for the parcel in order to coordinate the offering of relocation assistance any payments to each displaced owner-occupant simultaneously with initiation of negotiations and to each displaced tenant-occupant within seven (7) days following initiation of negotiations for the parcel.
7. MROWCO shall make every reasonable effort to negotiate settlements for the acquisition of each parcel based on the approved appraisal amount or an amount approved by the Engineer for COUNTY and upon closing each acquisition obtain and furnish COUNTY with curative documents necessary to satisfy any and all title objections or unrecorded interests in said parcel, (excepting that COUNTY shall obtain all subordinations of utility easements) sufficient for approval of title by COUNTY and the COUNTY Attorney as required or COUNTY'S request or warrants in payment for each acquired parcel.
8. Pursuant to paragraph 3.05-9 of the Negotiations Chapter of the Land Acquisition Policies and Procedures Manual, no offers in excess of the approved appraisal amount shall be made by MROWCO without prior written approval of the COUNTY Engineer.
9. In the event MROWCO, after having made every reasonable effort to negotiate with the owner of a parcel, is unable to obtain a settlement on the approved appraisal amount, MROWCO shall prepare and submit a written report summarizing the progress of negotiations to date together with a copy of MROWCO'S Record Form completed to date with the names and addresses of all

interested parties. MROWCO'S written report shall also include its recommendation for further procedure towards acquiring the parcel. The Engineer for COUNTY may elect to prepare and forward a Final Offer letter (with copy to MROWCO) to the owner of the parcel and thereafter request assignment of a Special Assistant Attorney General (or the COUNTY Attorney) to proceed with preparation of a condemnation petition. In any case, said COUNTY Engineer reserves the right to require MROWCO to make additional negotiation contacts with the parcel owner up until the actual date of filing a petition to condemn the parcel.

10. It is understood that appearances in court and pretrial conferences may be required in relation to the negotiation services called for herein and it is agreed that such appearance or appearances shall be made upon request of COUNTY or its trial counsel.

In event of such services being requested, they will be provided as follows:

- (a) Rate each half day or fraction thereof for time spent in pretrial conference \$1,000.00.
 - (b) Rate each half day or fraction thereof for time spent in court \$1,000.00.
11. MROWCO will not furnish a copy of any appraisal or the findings of results contained therein to any other person or agency unless authorized by COUNTY or upon court order.
12. Invoices for services will be submitted through TranSystems and will show the route, construction section, county, job number, project number, and parcel number or numbers. Invoices for services in connection with pretrial conferences and court testimony will show the items listed above and in addition, will include a statement of the nature of services performed and amount of time thereon. A progress report showing status of all active assigned parcels shall be supplied upon request.
13. MROWCO warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for him, to solicit or secure this contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for it, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of the contract. For breach or violation of this warrant, COUNTY shall have the right to annul this contract without liability.
14. MROWCO hereby certifies that if any conflict of interest arises, in any of the parcels subsequently assigned to it, it will immediately inform the Engineer for COUNTY accepting this proposal and return all material furnished to it for reassignment to others.
15. Any dispute concerning a question of fact arising under this proposal shall be decided by the Engineer for COUNTY accepting this proposal and such decision shall be final and conclusive.
16. Changes in the work to be performed under this proposal may be made at any time in writing by COUNTY. If such changes justify an increase or decrease in the per parcel rate set forth herein, an equitable adjustment shall be made and this contract shall be modified accordingly.

Documentation which is considered inadequate will be augmented and errors will be corrected upon request without additional cost.

17. COUNTY may terminate this proposal at any time for any cause by a notice in writing to MROWCO. In the event of such termination, payment will be made to MROWCO for the services which have been completed. Parcel negotiations in the process of completion shall be compensated for on an equitable basis and all incomplete parcel data collected in connection with them shall be turned over and become the property of COUNTY; provided, however, that should this proposal be terminated solely because the progress or quality of work is unsatisfactory as determined by the Engineer for COUNTY accepting this proposal, then no payment will be made or demanded by MROWCO for any negotiation services which have not been completed and delivered to COUNTY prior to the date of said termination.
18. MROWCO will save harmless COUNTY from all claims and liability due to activities of itself, its agents, and its employees and will comply with all Federal, State, and local laws and ordinances.
19. MROWCO agrees that this contract or any part thereof will not be sublet or transferred without the written consent of the Engineer accepting this proposal for COUNTY.
20. In the event this proposal is accepted, it shall constitute a contract as of the date it is approved by COUNTY or its authorized representative and shall be binding on MROWCO, its executors, administrators, successors or assigns, as may be applicable.
21. The undersigned in making the certifications required by this proposal in paragraphs 22 through 31 is making these certifications on behalf of the contracting entity and its officers and each individual authorized to do work for the Illinois Department of Transportation under this proposal.
22. It is understood and agreed that Appendices A and B shall be a part of this contract and MROWCO agrees to be bound by the terms and provisions contained herein.
23. MROWCO certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois nor that he has made admission of guilt of such conduct which is a matter of record, nor has any official, officer, agent, or employee of this company been so convicted nor made such an admission.

If a firm, the firm certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois, nor has the firm made an admission of guilt of such conduct which is a matter of record, nor has an official, agent, or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm.

24. MROWCO under penalties of perjury, certifies that 20-3870734 is its correct Federal Taxpayer Identification number. It is doing business as a:

- | | |
|--|--|
| <input type="checkbox"/> Individual | <input type="checkbox"/> Real Estate Agent |
| <input type="checkbox"/> Sole Proprietorship | <input type="checkbox"/> Governmental Entity |
| <input type="checkbox"/> Partnership (IRS 501 (a) only) | <input type="checkbox"/> Tax Exempt Organization |
| <input checked="" type="checkbox"/> Corporation | <input type="checkbox"/> Trust or Estate |
| <input type="checkbox"/> Not-for-Profit Corporation | |
| <input type="checkbox"/> Medical and Health Care Services Provider Corporation | |

25. MROWCO, under penalty or perjury under the laws of the United States, certifies that, except as noted below, the company or any person associated therewith in the capacity of owner, partner, director, officer, principal investigator, project director, manager, auditor, or any position involving the administration of federal funds:

is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;

has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past three years;

does not have a proposed debarment pending; and

has not been indicted, convicted, or the subject of a civil judgment by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate to whom it applies, initiating agency, and dates of action. Providing false information may result in criminal prosecution or administrative sanctions.

(INSERT EXCEPTIONS)

26. MROWCO under penalties of perjury, certifies that as in accordance with Section 11.1 of the Illinois Purchasing Act, no person who is entitled to receive individually more than 7 1/2 percent of the total distributable income of the organization or together with their spouse or minor child more than 15 percent of the total distributable income of the organization is (i) an elected State official, a member of the General Assembly, an appointed office, a State or County employee; (ii) an officer or employee of the Illinois Toll Highway Authority or the Illinois Building Authority; or (iii) a spouse or minor child of any such enumerated person.

Type of Ownership

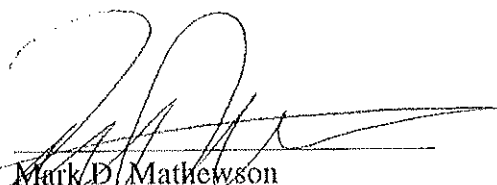
Corporation
 Individual
 Other (Please specify) _____

Non-Incorporated
 Partnership

27. MROWCO certifies that it is not in default on an educational loan as provided in Public Act 85-827.
28. MROWCO certifies that it is not barred from bidding on State of Illinois contracts because of violations of state law regarding bid rigging or rotating (P A 85-1295), Illinois Revised Statutes 1987 Supp., Ch. 38, Par. 33E-3 and 33E-4.
29. MROWCO certifies that it will not engage in the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance in the performance of this contract, or if a corporation, partnership, or other entity with 25 or more employees, have completed and signed a "DRUG-FREE WORKPLACE CERTIFICATION."
30. MROWCO agrees by signing this proposal to the provisions as written. This proposal shall be governed by Illinois law.
31. MROWCO shall maintain, for a minimum of five years after the completion of the contract, adequate books, records, and supporting documents to verify the amount, recipients, and uses of all disbursements of funds passing in conjunction with the contract; the contract and all books, records, and supporting documents related to the contract shall be available for review and audit by the Auditor General; and the contractor agrees to cooperate fully with any audit conducted by the Auditor General and to provide full access to all relevant materials. Failure to maintain the books, records, and supporting documents required by this Section shall establish a presumption in favor of the State or the County for the recovery of any funds paid by the State or the County under the contract for which adequate books, records, and supporting documentation are not available to support their purported disbursement.

Submitted this 19th day of September, 2012.

MATHEWSON RIGHT OF WAY COMPANY

By: 
Mark D. Mathewson
President

Accepted this ____ day of _____, 2012.

TRANSYSTEMS

By: _____

APPENDIX A

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 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 ground 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 Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
3. **Solicitations for Subcontracts, Including Procurement 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 procurement 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 ground 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 or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations, orders and instructions. 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 or the Federal Highway Administration is 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 shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - withholding of payments to the contractor under the contract until the contractor complies, and/or
 - cancellation, termination or suspension of the contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor shall include the provisions of Paragraph (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 or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance; 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 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 B

EQUAL EMPLOYMENT OPPORTUNITY CLAUSE required by the Illinois Fair Employment Practices Commission as a material term of all public contracts:

EQUAL EMPLOYMENT OPPORTUNITY. In the event of the contractor's noncompliance with any provision of this Equal Employment Opportunity Clause, the Illinois Fair Employment Practices Act or the Fair Employment Practices Commission's Rules and Regulations for Public Contracts, the contractor may be declared nonresponsible and therefore ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or avoided in whole or in part, and such other sanctions or penalties may be imposed and remedies invoked as provided by Statute or regulation.

During the performance of this contract (Agreement), the contractor (Consultant) agrees as follows:

1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or ancestry, physical or mental handicap unrelated to ability, or an unfavorable discharge from the military service, and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
2. That, if it hires additional employees in order to perform this contract, or any portion hereof, it will determine the availability (in accordance with the Commission's Rules and Regulations for Public Contracts) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
3. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin or ancestry, physical or mental handicap unrelated to ability, or an unfavorable discharge from the military service.
4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice such labor organization or representative of the contractor's obligations under the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts. If any such labor organization or representative fails or refuses to cooperate with the contractor in its efforts to comply with such Act and Rules and Regulations, the contractor will promptly so notify the Illinois Fair Employment Practices Commission and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
5. That it will submit reports as required by the Illinois Fair Employment Practices Commission's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Commission or the contracting agency, and in all respects comply with the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts.
6. That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Illinois Fair Employment Practices Commission for purposes of investigation to ascertain compliance with the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts.

7. That it will include verbatim or by reference the provisions of Paragraphs 1 through 7 of this clause in every performance subcontract as defined in Section 2.10(b) of the Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every such subcontractor; and that it will also so include the provisions of paragraphs 1, 5, 6 and 7 in every supply subcontract as defined in Section 2.10(a) of the Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every such subcontractor. In the same manner as with other provisions of this contract, the contractor will be liable for compliance with applicable provisions of this clause by all its subcontractors; and further it will promptly notify the contracting agency and the Illinois Fair Employment Practices Commission in the event any subcontractor fails or refuses to comply therewith. In addition, no contractor will utilize any subcontractor declared by the Commission to be nonresponsible and therefore ineligible for contracts or subcontracts with the state of Illinois or any of its political subdivisions or municipal corporations.

With respect to the two types of subcontracts referred to under paragraph 7 of the Equal Employment Opportunity Clause above, following is an excerpt of Section 2 of the FEPC's Rules and Regulations for Public Contracts:

Section 2.10. The term "Subcontract" means any agreement, arrangement or understanding, written or otherwise, between a contractor and any person (in which the parties do not stand in the relationship of an employer and an employee):

- for the furnishing of supplies or services or for the use of real or personal property, including lease arrangements, which, in whole or in part, is utilized in the performance of any one or more contracts; or
- under which any portion of the contractor's obligation under any one or more contracts is performed, undertaken or assumed.

By signing this Proposal, the NEGOTIATOR agrees to the provisions as written. Upon acceptance by the LPA, this Contract shall be governed by Illinois law.

For the NEGOTIATOR:

Mathewson Right of Way Company

Address: 30 N. LaSalle Street #1726

City: Chicago State: IL Zip Code: 60602

By:  Date: 9/7/2012

Authorized Signature
TIN/FEIN/SSN: 20-3870734 Telephone: 312-676-2900

For TranSystems
LPA

Date: _____

LPA Representative

EXHIBIT C-3

SUBCONSULTANT SERVICES
Huff & Huff, Inc



environmental engineers
and consultants

915 Harger Road, Suite 330
Oak Brook, IL 60523
Phone (630) 684-9100
Fax (630) 684-9120
Website: <http://huffnhuff.com>

February 27, 2012

Ms. Jennifer Golemba
TranSystems, Corporation
1475 East Woodfield Road, Suite 600
Schaumburg, Illinois 60173-5440

**Re: Environmental Services
Hart Road and U.S. Route 14 Improvement Project Phase II
Village of Barrington and Barrington Hills, Lake County, Illinois
Proposal No.: T12-021**

Dear Ms. Golemba:

Huff & Huff, Inc. (Consultant) is pleased to submit this proposal to TranSystems Corporation (Client) to perform supplemental environmental services associated with the proposed roadway improvements at the intersection of Hart Road and Northwest Highway (U.S. Route 14) in the Villages of Barrington and Barrington Hills, Lake County, Illinois. The scope of services includes performing a Preliminary Environmental Site Assessment (PESA) Update, Preliminary Site Investigation (PSI), and wetland permitting. This proposal presents our project approach, the scope of services, cost, and schedule for completing the project.

1. INTRODUCTION

The Lake County Division of Transportation (LCDOT) is proposing roadway improvements at the intersection of Hart Road and U.S. Route 14 in the Villages of Barrington and Barrington Hills, Lake County, Illinois. The project extends along the north and south sides of U.S. Route 14 between North 20th Street to Western Avenue, along the north side of U.S. Route 14 between Western Avenue and Cumnor Avenue, and along both sides of Hart Road extending south from West Taylor Road past U.S. Route 14 extending southeast for approximately 1,700 feet. Existing land use within the project limits is residential, commercial, and open undeveloped land.

Consultant has been requested to provide supplemental environmental services to update the PESA that was completed for this project in June of 2010 during Phase I as well as to conduct a PSI and assist with wetland permitting for anticipated impacts to wetlands and/or "Waters of the U.S." (WOUS). Permits for impacts to wetlands and associated buffers for LCDOT projects are issued through the U.S. Army Corps of Engineers (COE) and the Lake County Stormwater Management Commission (SMC).

2. SCOPE-OF-SERVICES

This proposal includes the following scope of services:

- Task 1 – Preliminary Environmental Site Assessment (PESA) Update
- Task 2 – Preliminary Site Investigation (PSI)
- Task 3 – Wetland Permitting
- Task 4 – Quality Assurance/Quality Control (QA/QC)

Task 1 - Preliminary Environmental Site Assessment (PESA) Update

Consultant will prepare a PESA Update for the Hart Road and U.S. Route 14 project. The process will follow general protocols associated with ASTM E1527-05, which is a standard environmental site assessment methodology and IDOT procedures. These protocols are consistent with the "Preliminary Site Assessment (PESA)" procedures outlined by the Illinois Department of Transportation (IDOT) in BDE #66-10A, the "Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Highway Project", and Bureau of Local Roads Special Waste Procedures. Section 27-2.08 of the BDE requires that property audits be updated after six months to be consistent with ASTM and AAI standards. This means that a database search and site visit are needed to update the existing PESA.

The June 2010 PESA prepared for the Hart Road at U.S. Route 14 project will be used to the greatest extent possible with current conditions being compared to conditions identified in the original PESA.

A. Historical Research

The historical research will utilize available information from the previously completed PESA and Phase 1 ESA.

B. Site Evaluation

Current environmental features and conditions of sites adjacent to the ROW will be evaluated. A site walkover of potential right-of-way areas designated for excavation and/or acquisition will be conducted for first-hand evaluation of current environmental conditions within the project limits. All of the features and conditions listed above will be investigated and, as appropriate, documented in photographs. The land-use and housekeeping practices of adjacent properties also will be evaluated in accordance with ASTM protocols.

C. Database Search

A records review or database search will be conducted to update potential environmental concerns within the study area. It will include a search of standard state and federal environmental record databases in accordance with the specifications of ASTM standards. This search is based on the outline of the study area.

Specifically, Consultant will search each database to identify any potential sources requiring further investigation. As appropriate, additional Freedom of Information Act (FOIA) requests

will be filed with the Illinois Environmental Protection Agency (IEPA) as necessary to obtain additional data pertaining to identified sites. A local source, such as the fire department or building department, will be contacted regarding available records and area history.

D. Report Preparation

One report summarizing the results of the evaluation will be prepared and combined with the PSI activities outlined in Task 2 of this proposal. The following information related to the PESA Update will be included in this report:

- a) The project location and description
- b) Historical uses of corridor.
- c) The area geology and hydrology.
- d) The environmental status of sites adjacent to the corridor regarding chemical use and storage, underground and aboveground storage tanks, solid waste, special waste, hazardous waste, wastewater, and PCBs.
- e) The environmental records review.
- f) An analysis of the site inspection.
- g) A summary of the findings regarding any environmental concerns.

Task 2 – Preliminary Site Investigation (PSI)

Consultant will utilize findings of the PESA update to determine a final scope for the PSI; however, a scope for conducting soil borings has been prepared for this proposal based on previous experience in the project area and findings from the June 2010 PESA. Based on available information three (3) sites were identified as having a HIGH risk, one (1) site was identified as having a MODERATE risk, and one (1) site was identified as having a LOW risk for encountering hazardous material during construction activities including:

- Brian's Cleaners at 720 West Northwest Highway (HIGH)
- Wickstrom Lincoln Mercury at 660 West Northwest Highway (HIGH)
- Union Pacific Railroad (HIGH)
- AT&T at 101 Hart Road (MODERATE)
- Joe Gentile Chrysler Plymouth at 630 West Northwest Highway (LOW)

A. Collect Soil Samples Through On-Site Drilling

Up to eight (8) soil borings are planned to address the potential environmental concerns and to address soil management issues during the construction activities. Traffic control is anticipated to ensure safety of the drilling personnel and the public given the traffic volumes along Northwest Highway at Hart Road. Consultant does intend to conduct two (2) borings within the existing railroad right-of-way (ROW) since reconstruction of the crossing is included in the project scope. Therefore, costs associated with railroad coordination, insurance, permits and flagger services have been included. Client shall serve as the primary point of contact for coordination and Consultant will assist with such coordination.

The borings are planned for advancement to depths ranging from approximately 4 to 12 feet bgs, with depths being finalized prior to mobilization based on receipt of project profile information for the proposed improvements. Based on the number of borings, the need for traffic control, and railroad coordination issues, the drilling is planned over a two day period, though it may be accomplished in a single day of effort.

B. Analytical

Boring locations where petroleum products or other volatile organic compounds represent the primary concern, samples will be field screened with a photoionization detector (PID). The sample with the highest PID reading in each boring will be analyzed for:

- **Volatile Organic Compounds** (up to 2 samples) – VOCs are volatile compounds found in gasoline and related to various solvents (Brains Cleaners);
- **Benzene, Toluene, Ethyl benzene, and Xylene (BTEX) with Lead** (up to 8 samples) – BTEX are volatile compounds found in gasoline and other volatile petroleum-based products. Synthetic Precipitation Leaching Procedure (SPLP) lead analysis will be performed on the samples pending results for the total lead concentrations (AT&T, Wickstrom, and UP RR),
- **Polynuclear Aromatic Compounds (PNAs) and pH** (up to 8 samples) – PNAs are semi-volatile compounds commonly formed during incomplete combustion of organic compounds. PNAs can be formed by the combustion of wood, coal, and petroleum products. They are also found in less refined, nonvolatile petroleum products and can be used to identify potential for diesel or fuel oil contamination in soil (AT&T, Wickstrom, and UP RR)

Other field screening factors such as visual, or proximity to potential sources of known contamination to determine which samples will be analyzed to identify the presence of:

- **Pesticides/Herbicides** – (up to 2 samples) Pesticides and herbicides are often applied to railroad corridor properties which dominates the area related to this project (UP RR)
- **SPLP RCRA Heavy Metals** (up to 6 samples) – Federal environmental regulations identify eight (8) heavy metals as hazardous if present in a *solid waste* at concentrations above varying threshold concentrations. These select samples will be analyzed for SPLP for consideration as CCDD and costs are included for up to 6 pH samples (UP RR).

C. Railroad Coordination

Consultant anticipates conducting two (2) borings within the existing UP RR ROW, with one to each the north and south of the crossing where improvements will occur. The following is presented to indicate what steps and costs are typically required to access the RR ROW. Therefore, the costs identified below are included in this proposal.

Prior to mobilization for collection of soil borings, H&H will serve as the primary contact with TranSystems assisting to coordinate with the railroad for access. The coordination and costs for this task are assumed to reflect involvement comparable to the borings previously completed by Consultant in the area. The need for an access permit and railroad flagger is anticipated at an estimated cost of \$2,000 and \$3,050 for railroad insurance and other potential fees. The direct costs total \$5,050.

D. PSI Report Preparation and CCDD Determination

A single report summarizing the results of the PESA Update and PSI project including the soil sample collection activities and analytical results will be prepared. Additionally, recommendations will be included regarding the limits of soil management for special waste and an estimate of soil volumes based upon the project improvements planned. This proposal also includes time for preparing the PE certification needed for CCDD under the new IEPA regulations.

For these tasks, the scope of work includes time necessary to manage the project, including scheduling and coordination with the prime consultant, drillers and environmental laboratories.

Task 3 – Wetland Permitting

Consultant will assist Client with wetland permitting for proposed wetland and/or WOUS impacts for the Hart Road and U.S. Route 14 improvement project. Permits for impacts to wetlands and associated buffers for LCDOT projects are issued through the COE and the Lake County SMC, and certified communities within Lake County, which includes the Village of Barrington.

Impacts are proposed to COE jurisdictional wetland Sites 5 and 9 as well to Isolated Wetlands of Lake County (IWLC) Site 6.

Based on proposed impacts to jurisdictional wetland Sites 5 and 9, it is assumed that this project will qualify for the COE Regional Permit Program. Section 401 Water Quality Certification (WQC) is automatically granted with most COE Regional Permits. Therefore, coordination with the IEPA for a WQC is not anticipated. If the COE determines that the project requires an Individual Permit (IP), a separate cost estimate will be required to account for additional tasks necessary for an IP.

The Section 404 permit process for jurisdictional wetlands/WOUS is initiated by the submittal of the Joint Application to the COE. The Joint Application Form will require a signature from the LCDOT. This application is submitted to the following agencies:

- U.S. Fish and Wildlife Service (FWS)
- Illinois Environmental Protection Agency
- Illinois Department of Natural Resources (IDNR)
- Illinois Department of Natural Resources/Office of Water Resources (IDNR/OWR)
- Illinois Historic Preservation Agency (IHPA)

The Lake County Watershed Development Ordinance (WDO) permit process is initiated by submitting the WDO Permit Application Form, signed by a Certified Wetland Specialist, to the SMC/Village of Barrington for impacts to IWLC (wetland Site 6), for work within a floodplain or floodprone area, for hydrological disturbances greater than 5,000 square feet, or for modification of drainage.

Wetlands should not be impacted until the appropriate permits have been obtained. Based on current guidelines, a sequence of impact assessments must be reviewed prior to the issuance of permits for wetland development. This sequence must take into account the potential for the complete avoidance of wetland impacts. If it can be proved that impacts are unavoidable, then the project must be designed to minimize wetland impacts. Once impacts are minimized to the least amount of impact possible the mitigation of these impacts will be reviewed.

Several other agencies are involved in the permitting process through external reviews related to the natural resources of the wetland. The following summarizes additional requirements:

The COE has an Interagency Coordination Agreement (ICA) with the SMC to review soil erosion and sediment control (SESC) plans for permit issuance. An applicant is required to provide the SMC with the information necessary to conduct an adequate technical review of the SESC construction plans for the site. The SMC will attend preconstruction meetings, periodically inspect the site during construction, monitor the sites implemented SESC measures and formulate site inspection reports that are submitted to the COE for review. The COE retains the final decision about soil, water and the other natural resources, and any issues, opinions, findings, or actions resulting from the ICAs. This scope does not include assistance for the erosion control submittal to the SMC.

A Designated Erosion Control Inspector (DECI) is required to review the project for erosion and sedimentation control measures for projects in Lake County. A DECI, hired or employed by the applicant, is required for all development that exceeds 10 acres of hydrologic disturbance or exceeds one acre of hydrologic disturbance and has a Regulatory Floodplain, IWLC or WOUS onsite or on adjoining property. The applicant shall submit the name of the DECI to the SMC at or before the pre-construction meeting or commencement of hydrologic disturbance for the development. The COE and SMC issuance of a permit to impact wetlands will be contingent upon approval of the erosion and sediment control plan by the SMC. This scope does not include field reviews of the soil erosion and sediment control measures for this project.

Endangered species review is required through the FWS and IDNR. Endangered species coordination is initiated with the IDNR by submitting an Ecological Compliance Assessment Tool (ECOCAT). Sign-off from the IDNR was received for this project on June 13, 2011. This is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary. Time is included in this scope to resubmit the ECOCAT if necessary.

The FWS Section 7 (S7) Consultation is initiated by the FWS S7 Consultation process. The Applicant is required to complete the review by following the online guidance on the FWS

website. The FWS S7 Consultation process will be completed as part of this scope. This scope does not include endangered species, field surveys.

As IHPA is part of the permit process, information will be forwarded to them. A Phase I archeological survey could be required by IHPA if portions of the project area are relatively undisturbed. Sign-off from the IDNR was received for this project on February 24, 2010. However, this is valid for only two years. Consultant will coordinate with client to update clearances from the IHPA.

This task includes one initial submittal and one re-submittal of permitting information if necessary. This task does not include permitting fees.

Task 4 – QA/QC

Time under this task includes QA/QC time for the PESA, PSI, and permitting submittal materials as described above. All permitting submittal documents will be forwarded to Client for review prior to submitting to any agency.

3. PROJECT COSTS

The estimated hours and project costs are tabulated in the attached tables.

4. SCHEDULE

The project will be initiated after the receipt of Notice to Proceed.

5. CONTRACT CONDITIONS

1. **CONSULTANT'S SERVICES:** The Consultant's (Huff & Huff, Inc.) services shall consist of those tasks described in Section 2.
2. **SCHEDULE:** The Consultant's work under this Agreement shall begin according to Section 4.
3. **COMPENSATION:** The fee basis is outlined in Section 3.
4. **DIRECTION:** For work performed under this Agreement, Consultant shall take direction from the Client.
5. **CHANGES:** This Agreement may only be changed by written amendment which specifies the terms being revised and which has been signed by both parties hereto.
6. **PROJECT DATA:** The Consultant, in coordination with the Client, shall obtain from the appropriate sources all data and information necessary for the proper and complete execution of the Consultant's services. Consultant shall be entitled to rely on materials and information provided by the Client.

7. **INDEPENDENT CONSULTANT:** The Consultant shall be deemed to be an independent contractor in all its operations and activities hereunder. The employees furnished by Consultant to perform the work shall be deemed to be Consultant employees exclusively, and said employees shall be paid by Consultant for all services in this connection. The Consultant shall be responsible for all obligations and reports covering Social Security, Unemployment Insurance, Worker's Compensation, Income Tax, and other reports and deductions required by an applicable state or Federal law.
8. **RIGHTS OF WORK PRODUCT:** Client shall have unlimited rights in all drawings, designs, specifications, notes, and other work developed in the performance of this contract, including the right to use same on any other work without additional cost to the Client. The Consultant shall not be liable for any use or reuse of the drawings, designs, specifications, notes and other work for use other than intended under the terms of this Agreement.
9. **INDEMNIFICATION:** The Consultant hereby agrees to indemnify and hold harmless the Client and any proper owners whose property it is necessary to access in the performance of this work, against any and all liability, loss, damages, demands, or actions or causes of action, which may result from any damages or injuries sustained by a person or entity in connection with or on account of any negligent act or omission of the Consultant or its employees relating to its obligations pursuant to this Agreement.
10. **TERMINATION:** Client may terminate this Agreement at any time upon ten (10) days written notice for whatsoever reason, provided Client shall pay the Consultant a reasonable fee for work satisfactorily performed prior to the effective date of termination. In no case, however, shall the total amount paid to Consultant exceed the amount set out above.
11. **INSURANCE:** The Consultant shall maintain insurance as set forth in the prime contract, if attached, or as set forth below.
 - a. Worker's Compensation and Employer's Liability Insurance: Worker's Compensation in compliance with applicable State and Federal laws.
 - b. Comprehensive General Liability Insurance for Bodily Injury and Property Damage to a combined single limit of \$2,000,000 per occurrence/claim or an umbrella of \$3,000,000.
 - c. Comprehensive Automobile Liability Insurance, including owned, hired, and non-owned automobiles, for Bodily Injury and Property Damage to a combined single limit of \$1,000,000 per occurrence.
 - d. Professional liability insurance \$2,000,000 on a claims made basis.
12. **LIMITATION OF LIABILITY.** Client recognized the disparity in relative risks and benefits of this engagement between Client and Consultant. In such recognition, Client agrees, to the fullest extent permitted by law, to limit all liability of Consultant to the Client for any claims, losses, costs, damages, suits, warranties, whether for negligence, breach of contract or any other legal, equitable or statutory theory whatsoever, regardless of cause, including but not limited to attorneys' fees, costs and expenses, so that the total aggregate liability of the Consultant to the Client shall not exceed \$50,000 or, two hundred percent of all fees received by Consultant under this Agreement, whichever is greater. Additional limits of liability are available for additional fees. Unless such additional limits are negotiated in

advance of any services under this Agreement, this limitation of liability shall apply regardless of the cause of action of legal theory pursued.

- 13. STANDARD OF CARE: Services performed by the Consultant under this Agreement will be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions.
- 14. RETENTION OF RECORDS: Consultant shall maintain complete records of all hours billed and direct costs incurred under this Agreement so as to accurately reflect the services performed and basis for compensation and reimbursement under this Agreement. All relevant project and accounting files relating to this project shall be maintained for a period of seven (7) years from the date of termination or completion.

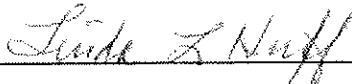
15. LEGAL: This Agreement shall be construed and interpreted solely in accordance with the laws of the State of Illinois.

BOTH PARTIES HERETO WARRANT AND REPRESENT that they have full right, power, and authority to execute this Contract.

IN WITNESS THEREOF, the parties hereto have executed this Agreement as of the day and year first specified above.

CONSULTANT
HUFF & HUFF, INC.

CLIENT
TRANSYSTEMS CORPORATION



Signature

Signature

By Linda L. Huff, P.E.
Typed Name

Typed Name

President
Officer's Title

Officer's Title

February 27, 2012
Date

Date



**Payroll Escalation Table
Fixed Raises**

FIRM NAME Huff & Huff, Inc.
PRIME/SUPPLEMENT Transystems

DATE 02/23/12
PTB NO. _____

CONTRACT TERM _____ MONTHS
START DATE 03/01/12
RAISE DATE 01/01/13

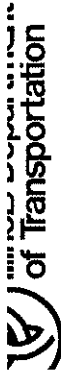
OVERHEAD RATE 155.87%
COMPLEXITY FACTOR 0
% OF RAISE 3.00%

ESCALATION PER YEAR

| | | | | | |
|-----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <u>03/01/12</u> - <u>08/31/12</u> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| <u>6</u> | <u>6</u> | | | | |

= 100.00%
= 1.0000

The total escalation for this project would be: 0.00%



Average Hourly Project Rates

Route Hart Road
 Location U.S. Route 14
 County Lake
 Job No. _____
 [B]/Item _____

Consultant Huff & Huff, Inc.

Date 02/23/12

Sheet 1 OF 1

| Payroll Classification | Total Project Rates | | | PESA Update | | | PSI | | | Wetland Permitting | | | QA/QC | | | Wgtg Avg |
|------------------------|---------------------|---------|----------|-------------|---------|----------|-------|---------|----------|--------------------|---------|----------|-------|---------|----------|----------|
| | Hours | % Part. | Wgtg Avg | Hours | % Part. | Wgtg Avg | Hours | % Part. | Wgtg Avg | Hours | % Part. | Wgtg Avg | Hours | % Part. | Wgtg Avg | |
| Principal | 3 | 2.48% | 1.59 | 1 | 5.26% | 3.37 | 1 | 1.69% | 1.09 | 1 | 14.29% | 9.16 | 1 | 14.29% | 9.16 | |
| Senior Geologist I | 19 | 15.70% | 4.96 | 4 | 21.05% | 6.64 | 13 | 22.03% | 6.95 | 2 | 28.57% | 9.02 | 2 | 28.57% | 9.02 | |
| Senior Scientist II | 4 | 3.31% | 1.04 | | | | | | | 4 | 57.14% | 17.92 | 4 | 57.14% | 17.92 | |
| Senior Scientist I | 30 | 24.79% | 6.22 | | | | | | | 30 | 83.33% | 20.90 | | | | |
| Project Engineer I | 51 | 42.15% | 10.78 | 14 | 73.68% | 18.85 | 37 | 62.71% | 16.04 | | | | | | | |
| Senior CADD I | 6 | 4.96% | 1.67 | | | | 2 | 3.39% | 1.14 | 4 | 11.11% | 3.74 | | | | |
| CADD II | 4 | 3.31% | 0.86 | | | | 4 | 6.78% | 1.76 | | | | | | | |
| Administrative IV | 4 | 3.31% | 0.69 | | | | 2 | 3.39% | 0.70 | 2 | 5.56% | 1.15 | | | | |
| | 0 | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | |
| TOTALS | 121 | 100% | \$27.80 | 19 | 100% | \$28.87 | 59 | 100% | \$27.69 | 36 | 100% | \$25.79 | 7 | 100% | \$36.10 | |

SUMMARY OF INHOUSE DIRECT COSTS

Project: TS - Hart Road

DIRECT

Task 1 - PESA Update

| | | | | | | | | | | |
|-----------------|----------|---|---|---|----|------|---|----|-------------------|-----------------|
| Trips - Company | 65 miles | x | 1 | x | \$ | 0.51 | = | \$ | 33.15 | |
| | | | | | | | | | Task Total | \$ 33.15 |

Task 2 -PSI

| | | | | | | | | | | |
|-----------------|----------|---|-----|---|----|------|---|----|-------------------|-----------------|
| Trips - Company | 65 miles | x | 2 | x | \$ | 0.51 | = | \$ | 66.30 | |
| Reproduction | 4 sets | x | 150 | x | \$ | 0.03 | = | \$ | 18.00 | |
| Color copies | 4 sets | x | 10 | x | \$ | 0.11 | = | \$ | 4.40 | |
| | | | | | | | | | Task Total | \$ 88.70 |

Task 3 -Wetland Permitting

| | | | | | | | | | | |
|--------------|--------|---|----|---|----|------|---|----|-------------------|-----------------|
| Reproduction | 7 sets | x | 75 | x | \$ | 0.03 | = | \$ | 15.75 | |
| Color copies | 7 sets | x | 12 | x | \$ | 0.11 | = | \$ | 9.24 | |
| | | | | | | | | | Task Total | \$ 24.99 |

Task 4 -QA/QC

| | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|-------------------|-------------|
| | | | | | | | | | Task Total | \$ - |
|--|--|--|--|--|--|--|--|--|-------------------|-------------|

| | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--------------------|------------------|
| | | | | | | | | | GRAND TOTAL | \$ 146.84 |
|--|--|--|--|--|--|--|--|--|--------------------|------------------|

SUMMARY OF OUTSIDE DIRECT COSTS

Project: TS - Hart Road

OUTSIDE

Task 1 - PESA Update

| | | | | |
|------------------------------|-----|-------------------|---|------------------|
| <u>Record Search Package</u> | 1 x | \$ 400.00 | = | \$ 400.00 |
| | | Task Total | | \$ 400.00 |

Task 2 -PSI

| | | | | |
|-----------------------|------|-------------------|---|--------------------|
| Analytical | | | | |
| PNA | 8 x | \$ 120.00 | = | \$ 960.00 |
| BTEX | 8 x | \$ 45.00 | = | \$ 360.00 |
| 5035 kits | 12 x | \$ 12.00 | = | \$ 144.00 |
| VOCs | 2 x | \$ 135.00 | = | \$ 270.00 |
| pH | 8 x | \$ 9.00 | = | \$ 72.00 |
| Pesticides/Herbicides | 2 x | \$ 250.00 | = | \$ 500.00 |
| SPLP RCRA Metals | 6 x | \$ 150.00 | = | \$ 900.00 |
| Federal Express | 1 x | \$ 15.50 | = | \$ 15.50 |
| | | Task Total | | \$ 3,221.50 |

Task 3 -Wetland Permitting

| | | | | |
|-----------------|-----|-------------------|---|-----------------|
| Federal Express | 1 x | \$ 15.50 | = | \$ 15.50 |
| | | Task Total | | \$ 15.50 |

Task 4 -QA/QC

| | | | | |
|--|--|-------------------|--|-------------|
| | | Task Total | | \$ - |
|--|--|-------------------|--|-------------|

| | | |
|--------------------|--|--------------------|
| GRAND TOTAL | | \$ 3,637.00 |
|--------------------|--|--------------------|

SUMMARY OF SERVICES BY OTHERS

Project: TS - Hart Road

| | | | | | <u>OUTSIDE</u> |
|-----------------------------------|---|---|------------|-------------------|--------------------|
| Task 1 - PESA Update | | | | | |
| | | | | Task Total | \$ - |
| Task 2 -PSI | | | | | |
| Driller | 1 | x | \$2,000.00 | = | \$2,000.00 |
| Traffic Control | 1 | x | \$2,000.00 | = | \$2,000.00 |
| Railroad Permit/Flagger/Insuranc | 1 | x | \$5,050.00 | = | \$5,050.00 |
| | | | | Task Total | \$9,050.00 |
| Task 3 -Wetland Permitting | | | | | |
| | | | | Task Total | \$ - |
| Task 4 -QA/QC | | | | | |
| | | | | Task Total | \$ - |
| | | | | | GRAND TOTAL |
| | | | | | \$ 9,050.00 |

P:\Proposal-2012\TranSystems\Hart Road\[TS Hart Road DC.xls]Outside Direct Costs

EXHIBIT C-4

SUBCONSULTANT SERVICES
Wang Engineering

September 7, 2012

Ms. Jennifer Golemba, P.E.
TranSystems Corporation
1475 East Woodfield Road
Suite 600
Schaumburg, IL 60173-5440

Re: Proposal – Geotechnical Engineering Services
Hart Road and US Route 14 (Northwest Hwy) Intersection Reconstruction, Phase 2 Study
Lake County Division of Transportation &
Illinois Department of Transportation
Lake County, Illinois
Wang No.: P120225R3

Dear Ms. Golemba:

Wang Engineering, Inc. (Wang) is pleased to submit this proposal for a subsurface investigation and geotechnical services to support the design and reconstruction of the Hart Road and US Route 14 Intersection in Barrington Township, Lake County Illinois.

Based on information provided by TranSystems Corporation (TranSystems), Wang understands the intersection and roadway approaches will be reconstructed and widened and resurfaced. The proposed improvements include widening to accommodate the addition of left turn lanes on Hart Road and dedicated right turn lanes. Hart Road will be widened approximately 200 feet north of the intersection and resurfaced to West Taylor Road while the south leg will be widened and reconstructed to 1200 feet south of the intersection and resurfaced to approximately 1900 feet south of the intersection. Westbound Route 14 will be widened and resurfaced from approximately 700 feet east of the intersection to 300 feet west of the intersection and eastbound Route 14 will be widened and resurfaced 700 feet west of Hart Road to 200 feet east of Hart Road.

The drawings indicate three retaining wall structures are proposed within the widened areas. A roughly 200-foot long wall is shown at the southeast corner of Hart Road and the UPRR tracks, an approximately 60-foot long wall is shown on the upstream end of a proposed culvert crossing Hart near Station 106+00, and a roughly 150-foot long wall is shown at the Northeast Corner Hart and US 14.

In addition to the widening, a multi-use path is proposed along the north side of US 14 from Hart Road to Cunnor Avenue.

SCOPE OF WORK

The purpose of our geotechnical investigations will be to determine the soil, groundwater, and existing pavement conditions, perform geotechnical engineering analyses, and provide recommendations for the design and reconstruction of the intersection and approach roadways.

To accomplish these objectives, Wang will complete the following tasks:

Geotechnical Drilling Services — Wang will provide equipment, labor, and associated materials to drill and sample eighteen (18) roadway borings to 8 feet bgs, four (4) retaining wall borings to 40 feet bgs (tall wall), two (2) retaining wall borings to 20 feet bgs (culvert wall), one (3) retaining wall boring to 10 feet bgs (landscape block wall). The spacing of the borings allows for several box culvert borings to be used for the dual purpose of retaining wall or roadway borings. We estimate a total of 424 feet of drilling. The roadway borings will be spaced to cover the limits of the widened areas and multi-use path at approximately 300-foot intervals. Retaining wall borings will be drilled along each proposed wall and at approximately 50-foot intervals. Box culvert borings were spaced at the end and mid points of the proposed 10'x4' culvert crossing Hart Road south of the UPRR (includes combination retaining wall and roadway boring).

The borings will be drilled by hollow stem augers and soil samples will be collected with split-barrel samplers in 2.0-foot continuous intervals. The sampling will be performed in accordance with AASHTO T206 "*Penetration Test and Split-Barrel Sampling of Soils.*" Soil samples will be returned to our laboratory for index testing.

Wang will perform dynamic cone penetrometer (DCP) testing and topsoil thickness measurements to determine the subgrade properties in the area between the roadway borings. We estimate one working day for a two man crew to complete the DCP testing.

As-drilled boring locations will be surveyed by Wang using a mapping-grade Trimble GeoXH handheld GPS unit capable of sub-foot vertical and horizontal accuracy.

Pavement Coring — Wang will provide equipment, labor, and associated materials to obtain two pavement cores from US Route 14, northeast and southwest of the Hart Road intersection. The cores would be obtained using a hand-operated coring machine equipped with a 4-inch diameter, diamond impregnated core barrel. The cores would be measured for thickness and photographed, and will be delivered to our in-house laboratory in Lombard, Illinois.

Field Supervision — Prior to drilling, Wang will locate the borings in the field and clear utilities through the JULIE one-call system and Meade Electric. A field engineer will monitor drilling activities, maintain daily field notes and soil boring logs, as well as receive, classify, and prepare soil samples for laboratory analysis.

The field engineer will monitor the groundwater level during drilling and at the completion of drilling operations. Soil samples will be classified according to the IDH Textural Classification System.

Laboratory Testing — Upon completion of the drilling phase, the samples will be transported to our in-house laboratory. The general soil testing program will include natural moisture content (AASHTO T265), Organic Content (AASHTO T194), Atterberg limits (AASHTO T89 & T90), and particle size analyses (AASHTO T88).

Engineering Analysis and Recommendations — A Roadway Geotechnical Report (RGR) will be prepared that covers the roadway widening and reconstruction as well as the construction of the multi-use path. The RGR will also include analyses and recommendations for the design and construction of the landscape block wall, and the proposed 10'x4' culvert and associated retaining wall that crossed Hart Road south of the UPRR. The report will include a description of the project, geological, pedological, and climatological data, site description, field and laboratory testing procedures, a characterization of the soil and groundwater conditions, and geotechnical recommendations for the roadway construction and pavement design. The report will include a site location map, gINT boring logs, a summary of laboratory test results and soil plan and profile sheets in MicroStation format.

A Structure Geotechnical Report (SGR) will be prepared for the roughly 200-foot long and 15-foot high wall shown at the southeast corner of Hart Road and the UPRR tracks. The report will include site location maps, descriptions of the subsurface investigation methods, boring location plans, boring logs, laboratory test results, and an assessment of the site soil and groundwater conditions. Analyses for retaining wall support and settlement evaluations, recommendations for subgrade treatment and construction, slope and global stability analyses, as well as criteria and procedures for temporary excavation, dewatering, backfilling, and compaction will be provided. If required by the designers, the boring logs will also be provided in MicroStation format.

SCHEDULING

Wang will start the project expediently upon prior authorization to proceed. We anticipate that utility clearance through JULIE will require 2 days. The drilling phase of the project will take seven days to complete. The laboratory-testing program will proceed at the completion of the sampling activities and will be completed within 10 days after the drilling completion. The geotechnical report will be finalized three week after the completion of the testing program.

COST ESTIMATE

The attached cost estimate was prepared assuming the following conditions:

- Drilling unit costs are considered prevailing rate under the Prevailing Wage Act (820 ILCS 130/0.01);
- The boring locations are accessible to a ATV-mounted drill;
- Railroad Permitting and flagmen are not required;
- Wang's scope of work does not include culverts;

- No contaminated soils will be encountered.

INSURANCE

Attached is a sample of our Certificate of Insurance. Additional insurance beyond those limits is not included in our cost estimate and will be considered a reimbursement item.

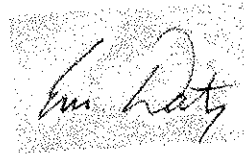
Wang Engineering, Inc. appreciates the opportunity to present this proposal and we look forward to working with TranSystems Corporation on this project. If you have questions, or if you require additional information, please contact us at (630) 953-9928.

Sincerely,

Wang Engineering, Inc.



Corina T. Farez, P.E., P.G.
Vice President



Eric Datz.
Engineering Geologist

**PAYROLL ESCALATION TABLE
FIXED RAISES**

FIRM NAME
PRIME/SUPPLEMENT

Wang Engineering, Inc.
Prime

DATE 09/07/12
PTB NO. NA

CONTRACT TERM
START DATE
RAISE DATE

6 MONTHS
4/15/2012
1/1/2013

OVERHEAD RATE 151.85%
COMPLEXITY FACTOR 0
% OF RAISE 3.00%

ESCALATION PER YEAR

4/15/2012 - 10/14/2012

6
6

[Empty Box]

[Empty Box]

[Empty Box]

[Empty Box]

= 100.00%
= 1.0000

0.00%

The total escalation for this project would be:

PAYROLL RATES

FIRM NAME Wang Engineering, Inc. DATE 09/07/12
 PRIME/SUPPLEMENT Prime
 PSB NO. NA

ESCALATION FACTOR 0.00%

| CLASSIFICATION | CURRENT RATE | CALCULATED RATE |
|----------------------------------|---------------------|------------------------|
| Principal in Charge | \$ 63.17 | \$63.17 |
| Project Manager | \$ 51.32 | \$51.32 |
| Senior Engineer | \$ 51.32 | \$51.32 |
| Project Engineer | \$ 31.15 | \$31.15 |
| Staff Engineer | \$ 31.15 | \$31.15 |
| Field Engineer | \$ 31.15 | \$31.15 |
| Senior Field Inspector | \$ 30.53 | \$30.53 |
| Field Inspector | \$ 23.30 | \$23.30 |
| Laboratory Technician | \$ 18.79 | \$18.79 |
| Project Administrative Assistant | \$ 26.26 | \$26.26 |
| QC/QA Reviewer | \$ 24.04 | \$24.04 |
| | | \$0.00 |
| | | \$0.00 |
| | | \$0.00 |
| | | \$0.00 |
| | | \$0.00 |
| | | \$0.00 |
| | | \$0.00 |
| | | \$0.00 |
| | | \$0.00 |
| | | \$0.00 |
| | | \$0.00 |
| | | \$0.00 |
| | | \$0.00 |

Subconsultants

FIRM NAME Wang Engineering, Inc.
 PRIME/SUPPLEMENT Prime
 PSB NO. NA

DATE 09/07/12

| NAME | Direct Labor Total | Contribution to Prime Consultant |
|--------------|--------------------|----------------------------------|
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| | | 0.00 |
| Total | 0.00 | 0.00 |

AVERAGE HOURLY PROJECT RATES

FIRM Wang Engineering, Inc.

PSB NA

PRIME/SUPPLEMENT Prime

DATE 09/07/12

SHEET 1 OF 5

| PAYROLL CLASSIFICATION | TOTAL PROJECT RATES | | | Desk Study | | | Site Visit | | | Boring Layout | | | Field Supervision / Drilling Laboratory | | | | | |
|----------------------------------|---------------------|-------------|----------------|------------|----------------|----------------|------------|-------------|----------------|---------------|-------------|----------------|---|-------------|----------------|----------|-------------|----------------|
| | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | | | |
| Principal in Charge | 2 | 0.63% | 63.17 | 1 | 14.29% | 7.33 | | | | | | | | | | | | |
| Project Manager | 15 | 4.70% | 51.32 | 2 | 28.57% | 8.90 | 6 | 50.00% | 15.58 | 8 | 50.00% | 15.58 | 8 | 11.76% | 3.66 | | | |
| Senior Engineer | 2 | 0.63% | 51.32 | 4 | 57.14% | 17.80 | 6 | 50.00% | 15.58 | 8 | 50.00% | 15.58 | 60 | 88.24% | 20.56 | | | |
| Project Engineer | 48 | 15.05% | 31.15 | | | | | | | | | | | | | | | |
| Staff Engineer | 162 | 50.78% | 31.15 | | | | | | | | | | | | | | | |
| Field Engineer | 16 | 5.02% | 31.15 | | | | | | | | | | | | | | | |
| Senior Field Inspector | 0 | | 30.53 | | | | | | | | | | | | | | | |
| Field Inspector | 60 | 18.81% | 23.30 | | | | | | | | | | | | | | | |
| Laboratory Technician | 2 | 0.63% | 18.79 | | | | | | | | | | | | | | | |
| Project Administrative Assistant | 12 | 3.76% | 26.26 | | | | | | | | | | | | | | | |
| QC/QA Reviewer | 0 | | 24.04 | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | | | |
| TOTALS | 319 | 100% | \$30.69 | 7 | 100.00% | \$34.03 | 12 | 100% | \$31.15 | 16 | 100% | \$31.15 | 68 | 100% | \$24.22 | 2 | 100% | \$18.79 |

AVERAGE HOURLY PROJECT RATES

FIRM
 Wang Engineering, Inc.
PSB
 NA
PRIME/SUPPLEMENT
 Prime

DATE 09/07/12

SHEET 2 **OF** 5

| PAYROLL CLASSIFICATION | AVG HOURLY RATES | Engineering Analysis | | Draft RGR | | Draft SGR | | Final RGR | | Final SGR | | QC/QA Review | | | | | | | | |
|----------------------------------|------------------|----------------------|---------|-----------|-------|-----------|----------|-----------|---------|-----------|-------|--------------|----------|-------|---------|----------|---|---------|---------|--|
| | | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | Hours | % Part. | Wgtd Avg | | | | |
| Principal in Charge | 63.17 | | | | | | | | | | | | | | | | | | | |
| Project Manager | 51.32 | | | | | | | | | | | | | | | | | | | |
| Senior Engineer | 51.32 | 2 | 2.60% | 1.33 | | | | | | | | | | | | | | | | |
| Project Engineer | 31.15 | 20 | 25.97% | 8.09 | 4 | 9.52% | 2.97 | 8 | 19.51% | 6.08 | 4 | 26.67% | 8.31 | | | | | | | |
| Staff Engineer | 31.15 | 55 | 71.43% | 22.25 | 35 | 83.33% | 25.96 | 30 | 73.17% | 22.79 | 16 | 69.57% | 16.61 | | | | | | | |
| Field Engineer | 31.15 | | | | | | | | | | | | | | | | | | | |
| Senior Field Inspector | 30.53 | | | | | | | | | | | | | | | | | | | |
| Field Inspector | 23.30 | | | | | | | | | | | | | | | | | | | |
| Laboratory Technician | 18.79 | | | | | | | | | | | | | | | | | | | |
| Project Administrative Assistant | 26.26 | | | | | | | | | | | | | | | | | | | |
| QC/QA Reviewer | 24.04 | | | | 1 | 2.38% | 0.63 | 1 | 2.44% | 0.64 | 1 | 4.35% | 1.14 | 1 | 6.67% | 1.75 | 4 | 100.00% | 26.26 | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| TOTALS | | 77 | 100% | \$31.67 | 42 | 100% | \$31.99 | 41 | 100% | \$32.01 | 23 | 100% | \$33.21 | 15 | 100% | \$34.30 | 4 | 100% | \$26.26 | |

DIRECT COST ESTIMATE
 GEOTECHNICAL SERVICES
 HART ROAD AT US 14 (NORTHWEST HWY)
 FOR
 TRANSYSTEMS CORPORATION

Date: 09/07/2012
 Wang No.: P120227R3

| Task Description | Units | Unit Price | Extended Cost |
|---|------------|------------------|--------------------|
| DRILLING, SAMPLING & INSITU TESTING | | | |
| Drilling Coordination | 2.0 Hours | \$90.00 /Hour | \$180.00 |
| Utility Clearance | 8.0 Hours | \$90.00 /Hour | \$720.00 |
| Mobilization (ATV-mounted Drill Rig) | 1 | \$1,150.00 /Each | \$1,150.00 |
| ATV-mounted Drill Rig Daily Charge | 7 Days | \$275.00 /Day | \$1,925.00 |
| Drilling Crew Daily Travel & Support Vehicle | 6 Days | \$145.00 /Day | \$870.00 |
| Stand-by Hourly Rate - ATV-Mounted Drill Rig | Hours | \$300.00 /Hour | |
| Drilling and Sampling | | | |
| <u>Retaining Wall Borings: 4 Borings to 40 feet bgs, 2 borings to 15 feet bgs, 3 boring to 10 feet bgs</u> | | | |
| <i>Drilling including split spoon sampling at 2.5-foot intervals to 30 feet and at 5-foot intervals thereafter (SPT, Penetrometer, Rimac, Visual Classification Included)</i> | | | |
| Between 0 and 75 Feet | | | |
| Normal Working Hours | 240.0 Feet | \$28.30 /Foot | \$6,792.00 |
| Restricted Hours (6 Hours) | Feet | \$32.30 /Foot | |
| <u>Box Culvert Borings: 2 Borings to 20 feet bgs</u> | | | |
| <i>Drilling including split spoon sampling at 2.5-foot intervals to 30 feet and at 5-foot intervals thereafter (SPT, Penetrometer, Rimac, Visual Classification Included)</i> | | | |
| Between 0 and 75 Feet | | | |
| Normal Working Hours | 40.0 Feet | \$ 28.30 /Foot | \$1,132.00 |
| Restricted Hours (6 Hours) | Feet | \$ 32.30 /Foot | |
| <u>Roadway Borings</u> | | | |
| <u>18 Roadway and multi-use path borings to 8 feet bgs</u> | | | |
| <i>Drilling including continuous split spoon sampling to 8 feet (SPT, Penetrometer, Visual Classification Included)</i> | | | |
| Continuous Sampling | | | |
| Normal Hours | 144.0 Feet | \$28.50 /Foot | \$4,104.00 |
| Restricted Hours (6 Hours) | Feet | \$31.50 /Foot | |
| <u>Shelby Tube Borings</u> | | | |
| <i>Blind drilling and Shelby tube sampling at selected depths</i> | | | |
| Shelby Tube Samples | | | |
| Normal Working Hours | Samples | \$55.00 /Sample | |
| Restricted Hours (6 Hours) | Samples | \$64.00 /Sample | |
| <u>Pavement/Deck Coring & Testing (2 Cores)</u> | | | |
| <i>For 2-inch, 4-inch, and 6-inch diameter cores</i> | | | |
| Pavement/Deck Coring (Two-Man Crew and Equipment) | | | |
| Normal Working Hours | Hours | \$250.00 /Hour | |
| Restricted Hours (6 Hours) | 1.5 Hours | \$300.00 /Hour | \$450.00 |
| <u>Hand Augering (Two-Man Crew and Equipment)</u> | | | |
| <i>Hand augering and soil sampling to 10 feet</i> | | | |
| Hand Augering | | | |
| Normal Working Hours | Hours | \$250.00 /Hour | |
| Restricted Hours (6 Hours) | Hours | \$300.00 /Hour | |
| <u>Borehole Abandonment and Surface Restoration</u> | | | |
| Backfilling Borehole (40' Deep Retaining Wall Borings, 20 foot Culvert Borings) | | | |
| Normal Working Hours | 280.0 Feet | \$8.00 /Foot | \$2,240.00 |
| Restricted Hours (6 Hours) | Feet | \$9.00 /Foot | |
| Pavement/Deck Patching | | | |
| Asphalt | Patches | \$15.00 /Each | |
| Concrete | 3 Patches | \$15.00 /Each | \$45.00 |
| Patching of Full Deck Coring | Patches | \$300.00 /Each | |
| Soil Cutting Removal | Hours | \$300.00 /Hour | |
| <u>Boring Location Accessibility</u> | | | |
| Private Utility Determination | At Cost | | |
| Tree Clearance | Lump sum | | \$300.00 |
| Guardrail Removal and Replacement | At Cost | | |
| Dozer / Equipment Rental | At Cost | | |
| <u>Railroad Fees</u> | | | |
| Permitting | At Cost | | |
| Railroad Protective Insurance | At Cost | | |
| Railroad Flagman | At Cost | | |
| <u>State/County/Municipal Fees</u> | | | |
| Pavement Opening Permit | At Cost | | |
| Insurance and Bonding | At Cost | | |
| <u>Surveying of Boring Locations</u> | | | |
| Mapping-grade Trimble 6000 Series GPS | 2.0 Hours | \$200.00 /Hour | \$400.00 |
| | | | \$20,308.00 |

**DIRECT COST ESTIMATE
 GEOTECHNICAL SERVICES
 HART ROAD AT US 14 (NORTHWEST HWY)
 FOR
 TRANSYSTEMS CORPORATION**

Date: 09/07/2012
 Wang No.: P120227R3

| Task Description | Units | Unit Price | Extended Cost |
|--|-----------|----------------|--------------------|
| LABORATORY TESTING | | | |
| <i>Soil Index Tests</i> | | | |
| T265 D2216 Water Content | 156 Tests | \$6.60 /Test | \$1,029.60 |
| -- D7263 Unit Weight (Density) | Tests | \$31.00 /Test | \$0.00 |
| T100 D854 Specific Gravity | Tests | \$57.00 /Test | \$0.00 |
| -- -- Void Ratio, Porosity, and Saturation | Tests | \$93.00 /Test | \$0.00 |
| -- D4972 pH of Soil | Tests | \$50.00 /Test | \$0.00 |
| T267 D2974 Organic Content by LOI | 2 Tests | \$52.00 /Test | \$104.00 |
| T194 -- Organic Content by Wet Combustion | Tests | \$115.00 /Test | \$0.00 |
| <i>Particle Size Distribution</i> | | | |
| T88 D422 Sieve Analysis | Tests | \$67.00 /Test | \$0.00 |
| T88 D422 Hydrometer Analysis | Tests | \$72.00 /Test | \$0.00 |
| T88 D422 Combined Sieve and Hydrometer | 10 Tests | \$108.00 /Test | \$1,080.00 |
| -- D1140 Percent Finer than No. 200 Sieve | Tests | \$45.00 /Test | \$0.00 |
| <i>Atterberg Limits</i> | | | |
| T89, T90 D4318 Liquid and Plastic Limits | 10 Tests | \$67.00 /Test | \$670.00 |
| T92 D427 Shrinkage Factors | Tests | \$80.00 /Test | \$0.00 |
| | | | \$ 2,883.60 |

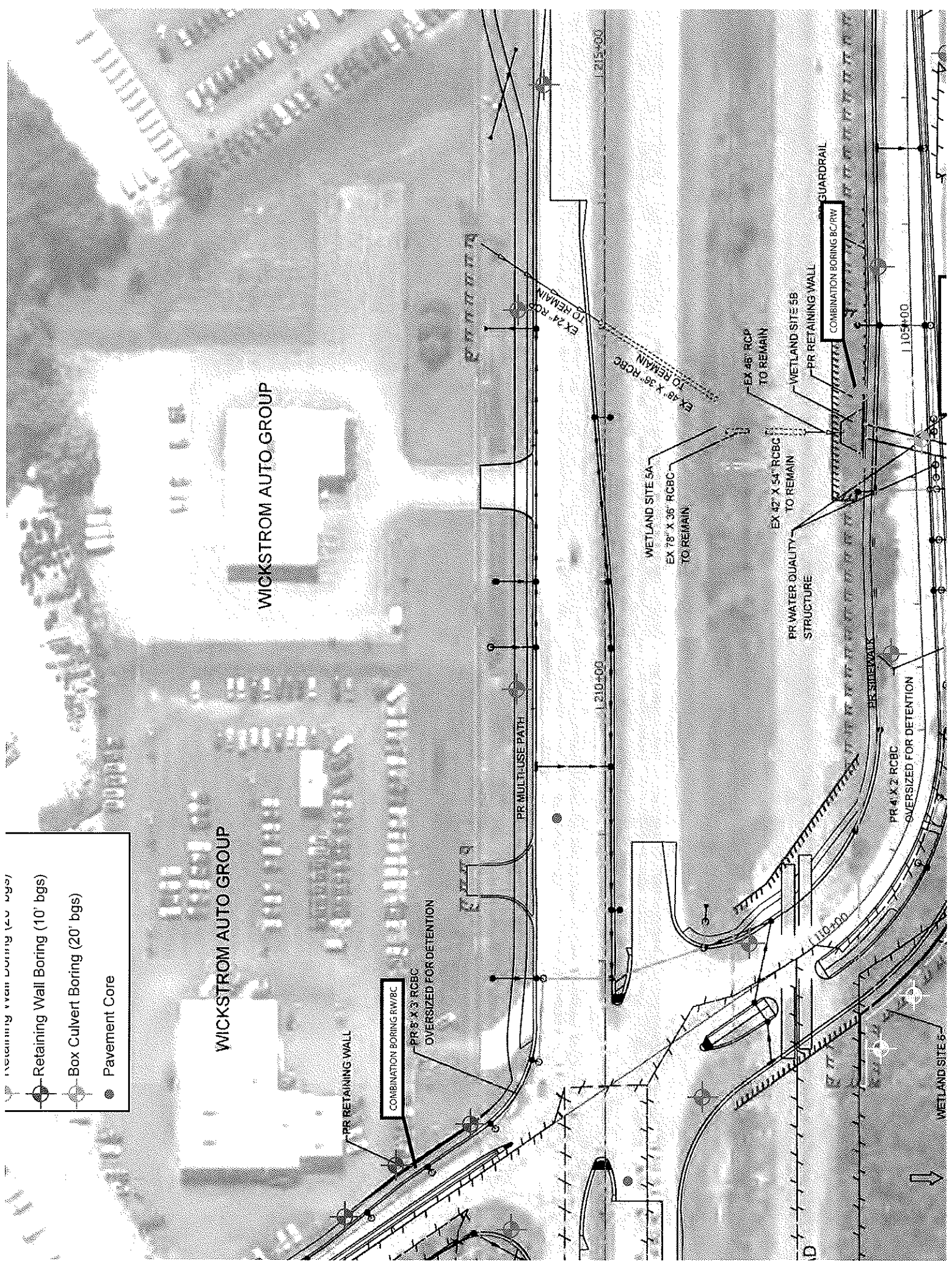
| TRAFFIC CONTROL | | | |
|--------------------------------|----------|------------------|--------------------|
| <i>Traffic Control</i> | | | |
| Lane Closure (1 lane) Arterial | | | |
| Daytime | 2.0 No. | \$1,000.00 /Each | \$2,000.00 |
| Night time | No. | \$1,400.00 /Each | \$0.00 |
| Roadway Flagmen | | | |
| 2-man crew; Daytime only | 2.0 Days | \$1,700.00 /Day | \$3,400.00 |
| | | | \$ 5,400.00 |

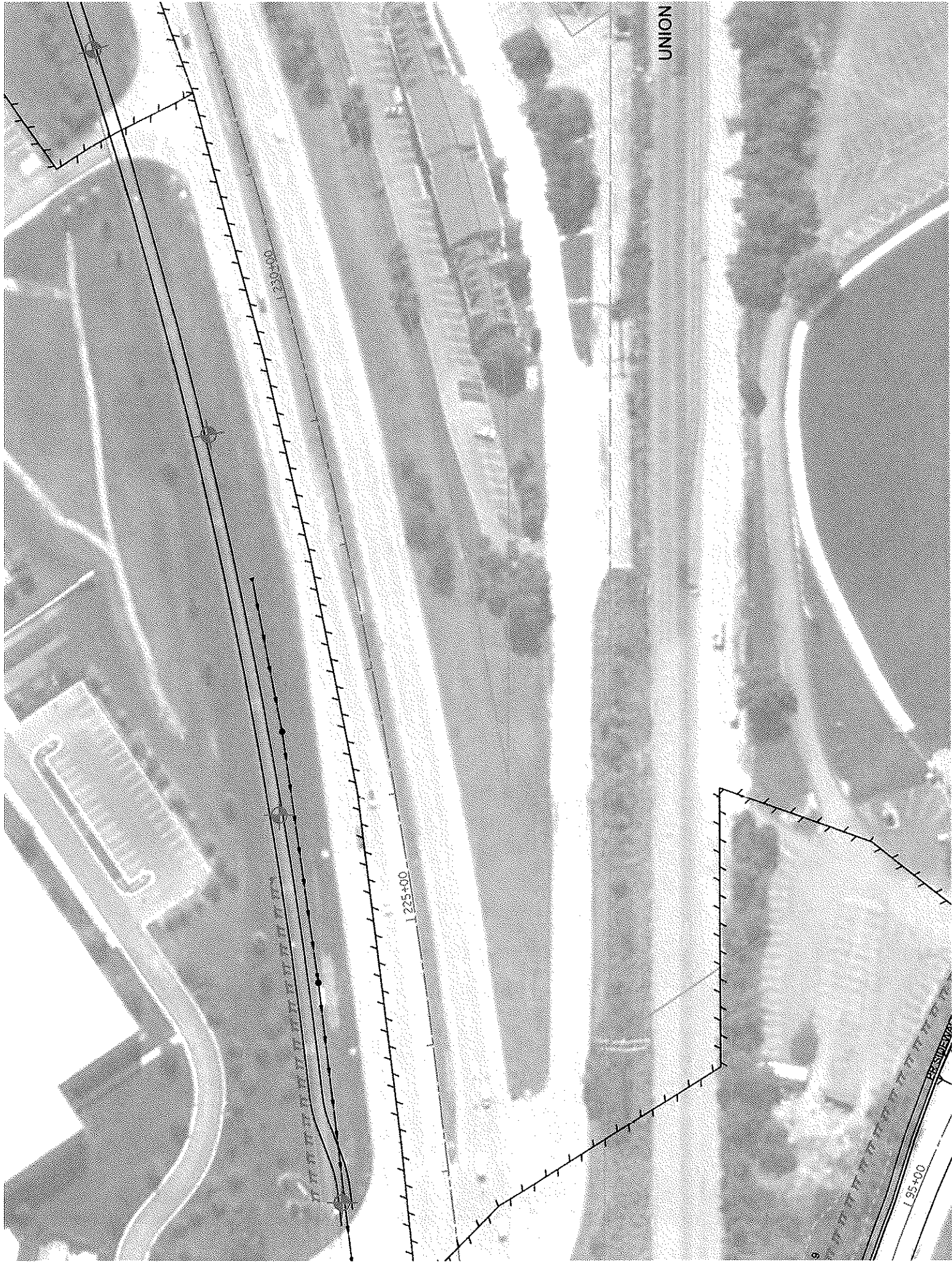
| FIELD VEHICLES & MILEAGE | | | |
|--|--------|--------------|------------------|
| <i>Field Vehicle</i> | | | |
| Field Vehicle Mileage (>100 Miles per Day) | Miles | \$0.50 /Mile | \$0.00 |
| Field Vehicle Daily (<100 Miles per Day) | 8 Days | \$45.00 /Day | \$360.00 |
| Tolls | Tolls | \$1.00 /Toll | \$0.00 |
| | | | \$ 360.00 |

| REPORT REPRODUCTION | | | |
|--|--------|---------------|------------------|
| <i>Report Reproduction</i> | | | |
| Copies, Black & White, 8.5" X 11" | 300 No | \$0.20 /Each | \$60.00 |
| Copies, Color, 8.5" X 11" | 75 No | \$2.50 /Each | \$187.50 |
| Copies, Reproduction or Reduction, 24" X 36" | 30 No | \$10.00 /Each | \$300.00 |
| | | | \$ 547.50 |

| SUMMARY | |
|--|---------------------|
| DRILLING, SAMPLING & INSITU TESTING | \$20,308.00 |
| LABORATORY TESTING | \$2,883.60 |
| TRAFFIC CONTROL | \$5,400.00 |
| FIELD VEHICLES & MILEAGE | \$360.00 |
| REPORT REPRODUCTION | \$547.50 |
| | \$ 29,499.10 |

- Retaining Wall Boring (10' bgs)
- Box Culvert Boring (20' bgs)
- Pavement Core





UNION

1230+00

1225+00

125+00

RESERVED

EXHIBIT D

SURVEY PROCEDURES

APPENDIX 5

SURVEY PROCEDURES (Revised 4/21/08)

UNITS-COORDINATES

The CONSULTANT will conduct all surveying, stationing, and preparation of required plans using English units of measure and the U.S. Survey Foot. State Plane Coordinates – Illinois East Zone, NAD 83 shall be obtained for all alignment and survey control points.

HORIZONTAL ALIGNMENT

Unless otherwise specified in the services contract, the CONSULTANT is to provide the horizontal alignment. The CONSULTANT'S SURVEYOR will try to re-establish the original horizontal alignment as shown on the recorded R.O.W. plats. The CONSULTANT shall contact LCDOT's Land Surveyor to obtain R.O.W. plats and field notes and benchmarks before establishing the horizontal alignment and stationing. Notify LCDOT's Surveyor immediately if the alignment cannot be reproduced or if in the CONSULTANT'S opinion the existing alignment information is in error.

The CONSULTANT'S SURVEYOR, prior to construction, shall stake the PCs, Pls, PTs, and POTs so that LCDOT's Surveyor can locate them later for construction staking. The CONSULTANT'S SURVEYOR will provide four reference ties to all U.S. Public Land Survey Monuments located within the construction limits. The reference points should be located outside of the anticipated construction limits if practical, so that they can be used after construction to replace the monuments. The CONSULTANT shall record Monument Records for all Section and Quarter Section corners set or found within the construction limits.

The CONSULTANT will mark all 100-foot interval station locations on the survey base line for construction, when on paved surfaces with a P.K. or Mag nail and spray paint. The baseline for relocated alignments when off pavement will be marked at 100-foot intervals with iron rods. The rods shall be set one foot below the surface in farmed land. The CONSULTANT will advise the County of any pavement alignment variations. In cases where the proposed centerline of construction or survey baseline is different from the existing centerline of R.O.W., both shall be shown and the relationship between them will be indicated on the Alignment and Tie sheet.

An Alignment and Tie Sheet shall be provided as part of the final product. The Alignment and Tie sheet shall be signed and sealed by the CONSULTANT'S SURVEYOR. The station, offset and coordinates of the alignment points and survey control points shall be shown. It shall be noted whether the coordinates, stationing and distances are State Plane grid or ground surface. In the case that the information shown is ground surface distances, the State Plane Coordinates still must also be shown for all alignment points and survey control points in order that they can be located with GPS and so that the project can be referenced into our GIS maps. The coordinates may be

APPENDIX 5

shown in a separate table. In either case the grid (combination) factor must also be shown.

VERTICAL ALIGNMENT

Vertical control for the project shall be based on NGVD 29 or NAVD 88 benchmarks. Indicate on the plans which Datum is used. NGVD 29 Lake County Mapping Benchmarks are preferred (<http://gis.lakeco.org/maps/>). LCDOT's Land Surveyor may also be contacted for benchmarks that may be in the area. The controlling benchmarks and the site benchmarks shall be described on the plans. Site benchmarks are to be located at less than 1000-foot intervals with a minimum of two (2) on each project.

All benchmarks will be located on stable objects. LCDOT prefers these objects to be outside the construction site. Some acceptable benchmark examples are, spikes in poles, bolts on fire hydrant rings, and concrete foundations. LCDOT's surveyor can be contacted for benchmarks that may be in the area.

TOPOGRAPHY

The CONSULTANT shall cut cross sections at 50-foot intervals in urban areas (100-foot intervals in rural areas) and at all points needing clarification. The cross section interval should be defined in the engineering services contract.

Full cross-section profiles will be taken at all cross streets, alleys, cross road culverts, and entrances (commercial, private and field). Half cross-sections will not be accepted because they skew the computer terrain model.

The CONSULTANT will locate and identify all trees (6 inches in diameter or greater) within the area either side of the centerline, defined by the proposed ROW or construction limits (whichever is greater) plus an additional 10 feet. The trees shall be identified by species and size. The trees shall be located by station/offset and have a ground elevation.

Streams, tributaries or major drainage ditches located within a lateral distance of 250 feet from centerline (upstream and downstream) shall be surveyed. Alignment, profiles and cross sections will be taken. The stream width shall be shown as the distance measured between the tops of the stream banks. Profile elevations along the bottom of the watercourse shall be taken at a minimum of 50-foot intervals.

The survey shall extend a minimum of 200 feet beyond the roadway construction limits. Cross sections shall be taken a minimum of 10 feet beyond the proposed ROW or construction limits (whichever is greater). Cross sections will extend 30 feet beyond the proposed R.O.W. at entrances 150 feet at minor side roads.

The collected survey data for the existing topography shall have a minimum of 3rd Order Accuracy horizontally with readings to the nearest 0.1 feet for vertical on gravel or ground and readings to the nearest 0.01 feet for vertical on all other surfaces.

APPENDIX 5

RAILROAD INSURANCE

The CONSULTANT will comply with the railroad's requirements when conducting a survey on the railroad's ROW. Usually this includes obtaining a permit, paying a fee, obtaining Railroad Protective Liability Insurance, notification of a flagman to be present near the rails during the survey operations and any other requirements of the railroad. The CONSULTANT is responsible for all of the foregoing requirements.

DELIVERABLES

- I. Copies from the CONSULTANT'S field books, showing benchmarks, level circuits, & structure details, such as size and inverts etc.
- II. Base Drawing at 1:1. All the topographic information shall be plotted electronically. The data shall be recorded in a MICROSTATION .DGN format. All line work defining different elements shall be completed using LCDOT's CELL and LINE LIBRARIES (see attachment). ASCII files containing all point information as described below shall be included. Backup CD's or diskettes shall be provided.
- III. SUMMARY SHEETS showing:
 - (1) Point number
 - (2) Point identification by code and description
 - (3) Station
 - (4) Distance offset (right or left)
 - (5) Northing and Easting coordinate values
 - (6) "Z" elevations

* Four computer printouts shall be provided:

1. List of points referenced by stations.
2. List of points referenced by sequential point numbering.
3. List of points sorted by point identification.
4. "ID" acronym explanation sheets.

An example showing the different printouts is shown on the next page.

APPENDIX 5

(LCDOT'S IDENTIFICATION CODES SHALL BE USED – see attachment)

| TYPICAL PRINT-OUT FORM (EAMPLE) | | | | | | | | |
|---------------------------------|--------------|---------|-----------|-----------|-----------|---------------------|-------------------|-------------------|
| BY POINT NUMBERS | | | | | | | | |
| POINT NUMBER | STATION | OFFSET | NORTHING | EASTING | ELEVATION | DEFINITION CODE (1) | DESCRIPTION PD | MATERIAL CODE (1) |
| 3331 | 104+23.306 | -45.869 | 10313.993 | 20392.255 | 207.495 | 491.10 | 10 INCH TREE PINE | 0 |
| 3332 | 104+50.475 | -49.159 | 10323.810 | 20416.938 | 207.743 | 668 | PAVEMENT EDGE | 759 |
| 3333 | 104+69.987 | -44.270 | 10261.604 | 20452.162 | 207.126 | 310 | FL W/GRATE | 774 |
| 3334 | 103+93.865 | +40.590 | 10297.779 | 20365.781 | 207.378 | 304.15 | 6 INCH TILE | 836 |
| BY STATION | | | | | | | | |
| STATION | POINT NUMBER | OFFSET | NORTHING | EASTING | ELEVATION | DEFINITION CODE (1) | DESCRIPTION PD | MATERIAL CODE (1) |
| 103+93.865 | 3334 | +40.590 | 10297.779 | 20365.781 | 207.378 | 304.15 | 6 INCH TILE | 836 |
| 104+23.306 | 3331 | -45.869 | 10313.993 | 20392.255 | 207.495 | 491.10 | 10 INCHTREE PINE | 0 |
| 104+50.475 | 3332 | -49.159 | 10323.810 | 20416.938 | 207.743 | 668 | PAVEMENT EDGE | 759 |
| 104+69.987 | 3333 | -44.270 | 10261.604 | 20452.162 | 207.126 | 310 | FL W/GRATE | 774 |
| BY POINT DESCRIPTION | | | | | | | | |
| POINT NUMBER | STATION | OFFSET | NORTHING | EASTING | ELEVATION | DEFINITION CODE (1) | DESCRIPTION PD | MATERIAL CODE (1) |
| 3331 | 104+23.306 | +40.590 | 10297.779 | 20365.781 | 207.378 | 304.15 | 6 INCH TREE PINE | 0 |
| 3336 | 104+50.475 | -45.869 | 10313.993 | 20392.255 | 207.495 | 491.10 | 10 INCHTREE PINE | 0 |
| 2323 | 104+69.987 | -49.159 | 10323.810 | 20416.938 | 207.743 | 668 | 6 INCH TREE OAK | 0 |
| 2565 | 103+93.865 | -44.270 | 10261.604 | 20452.162 | 207.126 | 310 | 5 INCH TREE OAK | 0 |

(1) LCDOT CODES

LCDOT's Land Surveyor:

Steve Heuer, PLS
600 West Winchester Road
Libertyville, IL 60048
(847) 377-7488