Local Agency	LOCAL AGENCY	Illinois Department of Transportation	CONSULTANT	Consultant
McHenry County Division of Transportation				Baxter & Woodman, Inc.
County: McHenry				Address: 8678 Ridgefield Road
Section: 14-00433-00-BR				City: Crystal Lake
Project No.: BROS-0111(066)		**Preliminary Engineering Services Agreement For Federal Participation**		State: IL
Job No.: P-91-151-15				Zip Code: 60012
Contact Name/Phone/E-mail Address: Cha Lee, P.E. 815-334-4645 cxlee@co.mchenry.il.us				Contact Name/Phone/E-mail Address: Tara Orbon, P.E. 815-459-1260 torbon@baxterwoodman.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 Oak Grove Road Route TR-135 Length 0.4 mi Structure No. 056-3035

Termini Over Drainage Ditch

Description Phase I (Preliminary Engineering) Study for the replacement of a Township bridge. Preliminary Engineering includes survey, evaluation of existing structure, environmental review, hydraulic modeling, preliminary design, and agency coordination.

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 365 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:

   a. 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,
   b. 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
   c. 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.
   d. are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency,
   e. 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,
   f. 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
   g. 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 o 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 (30ILCS 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
Baxter & Woodman, Inc.	36-2845242	$162,369.71

Sub-Consultants:	TIN Number	Agreement Amount
Soil and Material Consultants, Inc.	36-3094075	$9,490.00
	Sub-Consultant Total:	$9,490.00
	Prime Consultant Total:	$162,369.71
	Total for all Work:	$171,859.71

Executed by the LA: McHenry County
(Municipality/Township/County)

ATTEST:

By: _____ By: _____

_____ Clerk Title: McHenry County Board Chair

(SEAL)

Executed by the ENGINEER:

ATTEST:

Baxter & Woodman, Inc.
8678 Ridgefield Road
Crystal Lake, IL 60012

By: By:

Title: Deputy Secretary Title: President/CEO

PAYROLL ESCALATION TABLE
FIXED RAISES

FIRM NAME Baxter & Woodman, Inc.
PRIME/SUPPLEMENT PRIME

DATE 10/20/14
PTB NO. N/A

CONTRACT TERM	12 MONTHS	**OVERHEAD RATE**	159.00%
START DATE	4/1/2015	**COMPLEXITY FACTOR**	
RAISE DATE	1/1/2016	**% OF RAISE**	3.00%

ESCALATION PER YEAR

4/1/2015 - 1/1/2016	1/2/2016 - 4/1/2016			
9 / 12	3 / 12			
= 75.00%	25.75%			
= 1.0075				

The total escalation for this project would be: **0.75%**

Subconsultants

FIRM NAME **Baxter & Woodman, Inc.** **DATE** **10/20/14**
PRIME/SUPPLEMENT **PRIME**
PSB NO. **N/A**

NAME	Direct Labor Total	Contribution to Prime Consultant
Soil and Material Consultants, Inc.		9,490.00
Total	0.00	9,490.00

PRELIMINARY ENGINEERING
Oak Grove Road Bridge over Drainage Ditch
Exhibit A

Route: **Oak Grove Road**
Local Agency: **McHenry County Division of Transportation**
(Municipality)
Section: **14-00433-00-BR**
Project: **BROS-0111(066)**
Job No.: **P-91-151-15**

*Firm's approved rates on file with
Bureau of Accounting and Auditing:

Overhead Rate	159%
Complexity Factor	0.00
Calendar	

Method of Compensation:

Cost Plus Fixed Fee 1	☑	14.5%[DL + R(DL) + OH(DL) + IHDC]
Cost Plus Fixed Fee 2	☐	14.5%[DL + R(DL) + 1.4(DL) + IHDC]
Cost Plus Fixed Fee 3	☐	14.5%[(2.3 + R)DL + IHDC]
Specific Rate	☐	
Lump Sum	☐	

Cost Estimate of Consultant's Services in Dollars

ELEMENT OF WORK	EMPLOYEE CLASS.	MANHOURS	PAYROLL RATE	PAYROLL COSTS (DL)	OVERHEAD	SERVICES BY OTHERS	IN-HOUSE DIRECT COSTS	PROFIT	TOTAL
1. Project Initiation & Data Collection		58		2,054.11	3,266.04		146.72	792.70	6,259.58
2. Topographic Survey		160		5,958.93	9,474.70		418.00	2,298.49	18,150.11
3. Traffic Analysis		8		294.80	468.73		80.00	122.31	965.83
4. Alternative Analysis		106		5,339.76	8,490.22		80.00	2,016.95	15,926.93
5. Preliminary Design		216		7,775.51	12,363.06			2,920.09	23,058.65
6. Drainage Analysis	See	46	See	1,530.17	2,432.97		80.00	586.25	4,629.38
7. Hydraulic Report	Payroll	218	Payroll	7,120.62	11,321.79		5,100.00	3,413.65	26,956.06
8. Environmental Coordination and Permitting	Rates	102	Rates	3,818.43	6,071.31		209.20	1,464.35	11,563.29
9. Special Waste Screening		16		724.83	1,152.48		828.00	392.27	3,097.58
10. Meetings		44		2,303.71	3,662.90		609.76	953.57	7,529.93
11. Public Involvement		20		812.41	1,291.74		150.00	326.85	2,581.00
12. Project Development Report		120		4,339.70	6,900.13		160.00	1,652.98	13,052.81
13. Geotechnical Report		8		415.96	661.38	9,490.00		156.21	10,723.55
14. Right of Way and Boundary		90		3,650.82	5,804.80		2,611.20	1,749.69	13,816.51
15. QA/QC		26		1,392.50	2,214.08			522.95	4,129.53
16. Manage Project		66		3,176.12	5,050.04			1,192.79	9,418.95
TOTALS		**1,304**		**50,708.39**	**80,626.34**	**9,490.00**	**10,472.88**	**20,562.10**	**171,859.71**

SERVICES BY OTHERS (INCLUDED IN TOTAL COST):
Soil and Material Consultants, Inc. $9,490.00

AVERAGE HOURLY PROJECT RATES

FIRM Baxter & Woodman, Inc.
PSB N/A
PRIME/SUPPLEMENT PRIME

DATE 10/21/14

SHEET 1 OF 3

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			1. Project Initiation & Data Collection			2. Topographic Survey			3. Traffic Analysis			4. Alternative Analysis			5. Preliminary 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
Principal	70.00	0																	
Sr. Engineer IV	64.35	20	1.53%	0.99	2	3.45%	2.22										2	0.93%	0.60
Sr. Engineer III	56.18	120	9.20%	5.17	2	3.45%	1.94							60	56.60%	31.80	16	7.41%	4.16
Sr. Engineer II	47.81	325	24.92%	11.92	8	13.79%	6.59	10	6.25%	2.99	4	50.00%	23.90				40	18.52%	8.85
Sr. Engineer I	43.31	40	3.07%	1.33										40	37.74%	16.35			
Engineer III	39.35	36	2.76%	1.09															
Engineer II	34.71	106	8.13%	2.82	12	20.69%	7.18										44	20.37%	7.07
Engineer I	25.89	278	21.32%	5.52	16	27.59%	7.14				4	50.00%	12.95				66	30.56%	7.91
Engineer Tech IV	44.94	14	1.07%	0.48															
Engineer Tech III	39.37	6	0.46%	0.18										6	5.66%	2.23			
Engineer Tech II	32.98	0																	
CAD/Survey Tech IV	41.86	46	3.53%	1.48				46	28.75%	12.04									
CAD/Survey Tech III	36.53	28	2.15%	0.78				28	17.50%	6.39									
CAD/Survey Tech II	33.32	257	19.71%	6.57	18	31.03%	10.34	76	47.50%	15.83							48	22.22%	7.40
CAD/Survey Tech I	25.43	0																	
Clerical I	26.36	28	2.15%	0.57															
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
TOTALS		1304	100%	$38.89	58	100.00%	$35.42	160	100%	$37.24	8	100%	$36.85	106	100%	$50.38	216	100%	$36.00

AVERAGE HOURLY PROJECT RATES

FIRM Baxter & Woodman, Inc.
PSB N/A
PRIME/SUPPLEMENT PRIME

DATE 10/21/14

SHEET 2 **OF** 3

PAYROLL CLASSIFICATION	AVG HOURLY RATES	6. Drainage Analysis			7. Hydraulic Report			8. Environmental Coordination and Permitting			9. Special Waste Screening			10. Meetings			11. Public Involvement		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	70.00																		
Sr. Engineer IV	64.35													4	9.09%	5.85			
Sr. Engineer III	56.18				8	3.67%	2.06							16	36.36%	20.43			
Sr. Engineer II	47.81	12	26.09%	12.47	30	13.76%	6.58	40	39.22%	18.75	2	12.50%	5.98	24	54.55%	26.08	12	60.00%	28.68
Sr. Engineer I	43.31																		
Engineer III	39.35				36	16.51%	6.50												
Engineer II	34.71							24	23.53%	8.17									
Engineer I	25.89	20	43.48%	11.26	126	57.80%	14.96	26	25.49%	6.60									
Engineer Tech IV	44.94										14	87.50%	39.33						
Engineer Tech III	39.37																		
Engineer Tech II	32.98																		
CAD/Survey Tech IV	41.86																		
CAD/Survey Tech III	36.53																		
CAD/Survey Tech II	33.32	10	21.74%	7.24	12	5.50%	1.83	12	11.76%	3.92							4	20.00%	6.66
CAD/Survey Tech I	25.43																		
Clerical I	26.36	4	8.70%	2.29	6	2.75%	0.73										4	20.00%	5.27
TOTALS		46	100%	$33.26	218	100%	$32.66	102	100%	$37.44	16	100%	$45.30	44	100%	$52.36	20	100%	$40.62

AVERAGE HOURLY PROJECT RATES

FIRM Baxter & Woodman, Inc.
PSB N/A
PRIME/SUPPLEMENT PRIME

DATE 10/21/14

SHEET 3 **OF** 3

PAYROLL CLASSIFICATION	AVG HOURLY RATES	12. Project Development Report			13. Geotechnical Report			14. Right of Way and Boundary			15. QA/QC			16. Manage Project					
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	70.00																		
Sr. Engineer IV	64.35										6	23.08%	14.85	6	9.09%	5.85			
Sr. Engineer III	56.18	2	1.67%	0.94	4	50.00%	28.09				6	23.08%	12.97	6	9.09%	5.11			
Sr. Engineer II	47.81	32	26.67%	12.75	4	50.00%	23.90	45	50.00%	23.90	14	53.85%	25.74	48	72.73%	34.77			
Sr. Engineer I	43.31																		
Engineer III	39.35																		
Engineer II	34.71	26	21.67%	7.52															
Engineer I	25.89	20	16.67%	4.32															
Engineer Tech IV	44.94																		
Engineer Tech III	39.37																		
Engineer Tech II	32.98																		
CAD/Survey Tech IV	41.86																		
CAD/Survey Tech III	36.53																		
CAD/Survey Tech II	33.32	32	26.67%	8.89				45	50.00%	16.66									
CAD/Survey Tech I	25.43																		
Clerical I	26.36	8	6.67%	1.76										6	9.09%	2.40			
TOTALS		120	100%	$36.16	8	100%	$52.00	90	100%	$40.56	26	100%	$53.56	66	100%	$48.12	0	0%	$0.00

PAYROLL RATES

FIRM NAME Baxter & Woodman, Inc. **DATE** 10/20/14
PRIME/SUPPLEMENT PRIME
PSB NO. N/A

ESCALATION FACTOR 0.75%

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Principal	$70.00	$70.00
Sr. Engineer IV	$63.87	$64.35
Sr. Engineer III	$55.76	$56.18
Sr. Engineer II	$47.45	$47.81
Sr. Engineer I	$42.99	$43.31
Engineer III	$39.06	$39.35
Engineer II	$34.45	$34.71
Engineer I	$25.70	$25.89
Engineer Tech IV	$44.61	$44.94
Engineer Tech III	$39.08	$39.37
Engineer Tech II	$32.73	$32.98
CAD/Survey Tech IV	$41.55	$41.86
CAD/Survey Tech III	$36.26	$36.53
CAD/Survey Tech II	$33.07	$33.32
CAD/Survey Tech I	$25.25	$25.43
Clerical I	$26.16	$26.36
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00

Current Rates have been increased by 3% to account for expected January 1, 2015 increases.

Exhibit B

Illinois Department of Transportation

Engineering Payment Report

Prime Consultant

Name	Baxter & Woodman, Inc.
Address	8678 Ridgefield Rd, Crystal Lake, IL 60012
Telephone	815-459-1260
TIN Number	36-2845242

Project Information

Local Agency	McHenry County Division of Transportation
Section Number	14-00433-00-BR
Project Number	BROS-0111(066)
Job Number	P-91-151-15

This form is to verify the amount paid to the Sub-consultant on the above captioned contract. Under penalty of law for perjury or falsification, the undersigned certifies that work was executed by the Sub-consultant for the amount listed below.

Sub-Consultant Name	TIN Number	Actual Payment from Prime
Soil and Material Consultants, Inc.	36-3094075	
	Sub-Consultant Total:	
	Prime Consultant Total:	
	Total for all Work Completed:	

Signature and title of Prime Consultant

Date

Note: The Department of Transportation is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under state and federal law. Disclosure of this information is REQUIRED and shall be deemed as concurring with the payment amount specified above.

Consultant: Baxter & Woodman
Route: Oak Grove Road
Section No: 14-00433-00-BR
Project No: BROS-0111(066)
Job No: P-91-151-15
County: McHenry
Ex. Structure No.: 056-3035

OAK GROVE ROAD BRIDGE OVER DRAINAGE DITCH
PHASE I ENGINEERING SERVICES
MCHENRY COUNTY DIVISION OF TRANSPORTATION

EXHIBIT C
SCOPE OF SERVICES

LOCATION:

This project is located on Oak Grove Road within unincorporated Chemung Township. The Oak Grove Road Bridge over Drainage Ditch (S.N. 056-3035) is located 0.71 miles west of U.S. Route 14 and is under the jurisdiction of Chemung Township Highway Department.

PROJECT UNDERSTANDING:

The Oak Grove Road Bridge over Drainage Ditch consists of a single-span reinforced concrete slab bridge. Due to poor condition and age of the structure, full replacement is anticipated. The rural cross section roadway over the structure carries an average daily traffic of approximately 600 vehicles per day.

The work included in the project consists of completing Phase I Engineering and Environmental Studies for the replacement of the Oak Grove Road Bridge. The preliminary design consists of determining structure type, waterway opening, geometric deficiencies, cost, and right-of-way (R.O.W.) for the project. Potential R.O.W. acquisition will be balanced between necessary floodplain compensatory storage requirements and sideslope improvements. Floodplain modeling and hydraulic analysis will be evaluated with existing drainage issues to recommend the new opening for the structure and completion of the waterway information table. Coordination with IDOT, permitting agencies, and the County will be ongoing throughout the project.

The project will utilize STP-Br federal funding and be processed through the IDOT District 1 Bureau of Local Roads and Streets and the Federal Highway Administration for reviews and Phase 1 Design Approval. It is anticipated that this project will be processed as a Categorical Exclusion, Group II.

SCOPE OF SERVICES:

1. PROJECT INITIATION AND DATA COLLECTION

- *Data Collection:* Obtain, review and evaluate the following information provided by the County for use in design:
    - Existing Roadway and Structure Plans with Inspection Reports
    - GIS Shape files surrounding the project limits
    - Aerial Photography
    - Maintenance and flooding records

- Drainage/Field Tile Studies
- Crash Data (5 year)
- ROW, property data
- Available Traffic Counts

- *Field evaluation:* Collect and record all necessary field data for structural, roadway, drainage, utility, and pavement analysis. Observe and photograph the project area and immediate surroundings.

- *Agency Coordination:* Coordinate with permitting agencies to identify and define requirements. Obtain available hydraulic models. Coordinate with IDOT, McHenry County DOT, Chemung Township, and other Local Agencies.

- *Utilities:* Contact J.U.L.I.E. for potentially impacted utility companies. Initiate utility coordination by contacting utility companies that have facilities along the project limits and requesting utility atlas maps. Plot locations and sizes of existing utilities in electronic drawings.

2. TOPOGRAPHIC SURVEY

- *Topographic Survey:* Perform topographic survey within the project limits and at 50-foot intervals including driveways and cross-road culverts. The limits of the survey will be 800 feet to the north and south of the structure (1,600-feet total). Cross section width shall be taken 25' feet outside the estimated proposed right-of-way. State plane coordinates and NAVD 88 will be used for horizontal and vertical controls.

  Outside the anticipated right-of-way, County contours shall be utilized for approximating compensatory storage, detention, borrow excavation, and mass grading design elevations.

- *Photos:* Collect photographs along the project route to assist with design drawings and exhibits.

- *Structures:* Collect drainage structure condition, inverts, size, and flow direction.

- *Stream Survey:* Perform stream survey per the IDOT Drainage Manual for hydraulic modeling purposes at center of channel and 100, 250, 500 and 1,000 feet upstream and downstream of the structure.

- *Terrain Model:* Download and develop digital terrain model for use in design and plan preparation.

- *Right of Way:* Field locate existing property corners and obtain recorded documents for determining the limits of existing right of way and easements.

3. TRAFFIC ANALYSIS

- *Traffic Forecasting:* Based on available traffic data, develop projected 2040 traffic volumes for the structure as per FHWA guidelines. Coordinate with the County and Chicago Metropolitan Agency for Planning (CMAP) for concurrence on 2040 traffic projections.

- *Accident Analysis:* Obtain accident data from IDOT and the County and compile for review. Complete an accident diagram for the road in the last 5 years and summarize findings. Complete an accident analysis to evaluate the frequency, severity, and recommended countermeasures.

4. ALTERNATIVE ANALYSIS

- *Structure Type Study:* Determine the preferred type, opening and end treatments for the proposed structure. Likely structure type alternatives include single-span bridge, three sided precast concrete structure, and multi-cell box culvert. For each alternative evaluate cost, durability, construction schedule, traffic and environmental impacts. Include evaluation of potential Accelerated Bridge Construction options. Summarize alternatives, considerations, and recommendations to the County for review and approval.

- *Bridge Condition Report:* Perform a field inspection of the existing structure. Evaluate and report any deficiencies including condition, hydraulics, or geometry. Evaluate potential scope of work alternatives; determine the most cost-effective alternative and present recommendations to the County for review and approval. Prepare an Abbreviated Bridge Condition Report in accordance with IDOT's *Bridge Condition Report Procedures & Practices Manual*.

5. PRELIMINARY DESIGN OF PREFERRED ALTERNATIVE

- *ROW Analysis:* Determine the preferred improvement right-of-way requirements and need for acquisition. Recommend and identify necessary temporary construction easements, permanent easements, or right-of-way acquisition to complete the proposed improvements.

- *Utility Coordination:* Initiate utility coordination by contacting utility companies that have facilities along the project limits and requesting utility atlas maps. Plot locations and sizes of existing utilities in electronic drawings.

- *Preferred Alternative Geometric Design:* Develop the preferred improvement plan, profile, and cross sections throughout the project. Identify design constraints including clear zone, obstructions, drainage limitations, and potential design exceptions.

- *Plan and Profile:* Prepare plan and profile sheets for the horizontal and vertical alignment of the preferred alternative at 1" = 50' scale.

- *Typical Sections:* Prepare typical sections for the existing and proposed improvements, showing dimensions for roadway surfaces, bases, subbases, subgrade treatments, ditches, backslopes, and right of way. This task Includes preliminary pavement design.

- *Cross Section Design:* Design roadway cross sections at 50-foot intervals and all driveways and cross-road culverts.

- *Conceptual Barrier Warrant Investigation:* Conceptually lay out the limits of required guardrail, and other roadside barrier. The limits will be used to assist with impacts to adjacent properties, floodplain fill, structure types, and cost estimating. Final barrier warrant analysis will be completed during Phase II.

- *Estimate of Cost and Schedule:* Develop preliminary cost estimates for the preferred improvement and anticipated schedule for construction.

- *Preliminary Structure Design:* Complete preliminary structural design with reference to IDOT Bridge Manual Section 2.3, AASHTO LRFD Bridge Design Specifications, and BLRS Chapter 4 for the proposed structure. Determine the final structure type and geometry based upon a site investigation, required spans, clearances, geometrics, hydraulic analysis and surrounding impacts. The following structure will be included:

    - Oak Grove over Drainage Ditch (replacement of existing SN 056-3035)

- *Maintenance of Traffic*: Traffic is anticipated to be detoured during construction. Develop a preferred maintenance of traffic and staging plan and submit to IDOT, Chemung Township, and the County for comment and approval. Confer with County staff, emergency services, and public transportation agencies to consider local impacts and concerns.

6. DRAINAGE ANALYSIS

- *Location Drainage Technical Memorandum (LDTM):* Prepare a Location Drainage Technical Memorandum of the project site including an analysis of the existing drainage system, an analysis of existing outlets, an evaluation of the need for storm water detention and compensatory storage, and design of proposed drainage improvements. Identify sensitive outfalls and complete the drainage report in accordance with the 2014 ACEC/IDOT Drainage Seminar requirements and the requirements of the McHenry County Stormwater Management Ordinance.

- *Compensatory Storage:* Design creek cross sections within 100 feet upstream and downstream of the bridge for work within the floodway/floodplain. Compute compensatory storage calculations. Prepare a preliminary grading plan (if needed) showing compensatory storage for work within regulatory wetland and floodplain areas.

7. HYDRAULIC REPORTS

- *Preliminary Bridge Design and Hydraulic Report (PBDHR):* Prepare PBDHR for the following structure:
    - Oak Grove Road over Drainage Ditch

- *Hydraulic Report:* Compile hydraulic survey information per IDOT Drainage Manual Sec. 2-602. Assess existing upstream and downstream flooding problems. Develop independent hydrologic and hydraulic models. Analyze proposed upstream and downstream impacts with respect to IDNR Part 3700 Rules.

- Complete hydrologic modeling using a hydrograph method (if required by McHenry County Department of Planning & Development) to determine peak flow rates.
- Complete hydraulic modeling of crossed waterway.
- Prepare a recommended preliminary design for the crossing and develop the transitions into the existing stream.
- Prepare existing and proposed Waterway Information Table and define the required bridge opening per the IDOT BLRS Manual.
- Compute predicted scour depth and prepare Scour Critical Evaluation Form, based on IDOT Drainage Manual Chapter 11 and recommendations of IDOT Local Bridge Unit.
- Prepare Preliminary Bridge Design and Hydraulic Report for IDOT review and approval.

- *Compensatory Storage:* Prepare preliminary grading plans or cross sections as appropriate for compensatory storage areas for work within the floodplain. Compute compensatory storage calculations suitable for preliminary design.

8. ENVIRONMENTAL COORDINATION AND PERMITTING

- *Environmental Survey:* Prepare the Environmental Survey Request Form and related exhibits. Submit to IDOT to determine potential environmental impacts. Biological, Archeological, and Historical surveys will be performed by the State. Wetland delineation will be performed by Baxter & Woodman as described below. Special Waste screenings will be completed by Baxter & Woodman as described in Task 9.

- *Permit Agency Early Coordination:* Initiate coordination with the following regulatory agencies to obtain preliminary design comments:

  - US Army Corps of Engineers (ACOE)
  - *McHenry County* Department of Planning & Development
  - *Illinois Department of Natural Resources – Office of Water Resources (IDNR-OWR)*

- *Wetlands:* Perform wetland delineation in the project corridor. Prepare a Wetland Delineation Report and Exhibits that summarize the methodology used, site description, and results of survey.

- *Wetland Mitigation:* Complete an alternatives analysis to determine if there are any feasible alternatives to minimize impacts to wetlands. Coordinate with US Army Corps of Engineers (ACOE) for development of any alternative strategies. Potential alternatives include on-site wetland mitigation, wetland mitigation bank, and a combination thereof. Payments for banking fees or detailed design of mitigation areas are not included in the scope of this work.

- *Wetland Impact Evaluation:* Prepare a wetland report detailing the work within a regulatory wetland, including a description of the wetlands being impacted, avoidance, minimization, and mitigation efforts. Submit to IDOT for review and approval.

- *Illinois Department of Natural Resources – Office of Water Resources (IDNR-OWR) Floodway Construction Permitting:* Submit hydraulic and floodplain information for a floodway construction permit with IDNR-OWR. Estimated permit fee included in contract as a reimbursable expense.

9. SPECIAL WASTE ASSESSMENT

- *Special Waste Screening:* Conduct Special Waste Screening as outlined in Section 20-12.03(b) of the IDOT Bureau of Local Roads and Streets Manual. Screening will include Environmental Regulatory Records Review and a site visit. Based on Environmental Screening results and site visit determine if further action is required and prepare a summary of the findings.

10. MEETINGS

- *Meetings:* The following meetings are anticipated for this project:
    - County (2 total): (Preliminary, Prefinal)
    - Regulatory Agencies (1 total): McHenry County P&D (1)
    - IDOT (1 total): (Kickoff)
    - IDOT/FHWA Coordination Meetings (1)
    - Individual Property Owner Meetings (1 maximum)

11. PUBLIC INVOLVEMENT

- *Notification Letters:* Prepare property owners' letters for impacted parcels. This work will be performed in accordance with County and IDOT guidelines. No public meeting is anticipated.

12. PROJECT DEVELOPMENT REPORT

- *Phase I Documentation:* Prepare a Local Project Development Report for Group II Categorical Exclusion and submit the report to IDOT-BLRS and the Federal Highway Administration for review and approval. Preliminary, Pre-final, and Final submittals are anticipated. Coordinate with County as needed to maintain an updated PPI form and funding application with CMAP and McHenry County Council of Mayors.

13. GEOTECHNICAL REPORT

- *Pavement Cores and Soil Borings:* Utilize Soil and Material Consultants, Inc. to take pavement cores of the surface and base material for determining the composition of the existing pavement material within the project limits. Collect 10-foot pavement borings and 10-foot parkway borings, obtain topsoil thicknesses within the parkway borings. Provide analysis and recommendations, including subgrade, in a soils report in accordance with IDOT guidelines. Baxter & Woodman will provide a boring and core location map prior to this work. (2 cores and 4 borings estimated).

- *Structural Borings:* Utilize Soil and Material Consultants, Inc. to take one 75-foot structural boring at each abutment (2 borings estimated). Obtain cores within the bituminous wearing surface and waterproofing membrane over the bridge and submit samples to NVLAP Lab for asbestos determination. (2 cores estimated).

14. RIGHT OF WAY AND BOUNDARY

- *Plat of Highways:* Perform legal surveys and develop plats, legal descriptions and title commitments for a maximum of five (5) adjacent parcels of land to be acquired for R.O.W., permanent easements or temporary construction easements.

15. QA/QC

- Perform in-house peer and milestone reviews by senior staff during project initiation, conceptual review, preliminary, prefinal, and final submittals. Provide ongoing reviews of permitting and utility coordination efforts. Conduct milestone reviews of subconsultants and provide feedback throughout the progress of work.

16. MANAGE PROJECT

- Plan, schedule, and control the activities that must be performed to complete the project including budget, schedule, and scope. Coordinate with County and project team to ensure the goals of the project are achieved. Prepare and submit monthly invoices, coordinate invoices from sub-consultants, and provide regular updates to the County.

MCHENRY COUNTY
OAK GROVE ROAD BRIDGE OVER DRAINAGE DITCH
EXHIBIT D

PROJECT SCHEDULE*

ROUTE: Oak Grove Road
SECTION: 14-00433-00-BR
COUNTY: McHenry
STRUCTURE NO.. 056-3035

	2015									2016		
TASK	April	May	June	July	August	September	October	November	December	January	February	March
Kick-off Meeting with County & IDOT												
Perform Topographic Survey												
Project Initiation and Data Collection												
Complete Geotechnical Analysis and Report												
Bridge Condition Report												
Preliminary Roadway Design & Alternatives Analysis												
Prepare Preliminary Bridge Design and Hydraulic Report (includes TSL)												
Wetland Assessment and Submit WIE												
Environmental Coordination and Permitting												
Attend FHWA Coordination Meeting with County												
Submit Draft Phase I Report												
IDOT Review of Draft Report												
Incorporate IDOT Review Comments												
Submit Final Project Development Report and Obtain Design Approval												
Manage Project, Meetings and Agency Coordination												

Schedule contingent upon agency review

MCHENRY COUNTY DIVISION OF TRANSPORTATION
OAK GROVE ROAD BRIDGE OVER DRAINAGE DITCH PHASE I ENGINEERING
SERVICES SECTION NO.: 14-00433-00-BR

EXHIBIT E

BAXTER & WOODMAN, INC.
2014 SCHEDULE OF HOURLY WAGE RATES
AND OVERHEAD COSTS FOR PROFESSIONAL SERVICES
ILLINOIS DEPARTMENT OF TRANSPORTATION

EMPLOYEE CLASSIFICATION	HOURLY WAGE RATES
Principal	$63 to $70
Sr. Engineer IV	$55 to $68
Sr. Engineer III	$49 to $59
Sr. Engineer II	$45 to $48
Sr. Engineer I	$38 to $45
Engineer III	$36 to $41
Engineer II	$32 to $34
Engineer I	$23 to $27
Engineer Tech V	$54
Engineer Tech IV	$41 to $45
Engineer Tech III	$36 to $40
Engineer Tech II	$25 to $36
Engineer Tech I	$16 to $17
CAD / GIS / Survey IV	$38 to $44
CAD / GIS / Survey III	$34 to $37
CAD / GIS / Survey II	$29 to $33
CAD / GIS / Survey I	$24 to $25
Clerical	$24 to $28

General and employee overhead is 159% of employee compensation.
Personal-owned vehicle Mileage Charges will be reimbursed at the rate set by the U.S. Internal Revenue Service.
Company-owned/leased vehicle usage will be reimbursed at a rate of $65.00 per diem or $32.50 per half diem.
Traffic Counters $50/day.
Postage - At cost.

MCHENRY COUNTY DIVISION OF TRANSPORTATION
OAK GROVE ROAD BRIDGE OVER DRAINAGE DITCH PHASE I ENGINEERING SERVICES
SECTION NO.: 14-00433-00-BR

EXHIBIT F

BAXTER & WOODMAN, INC.

OVERHEAD* RATE AS
PERCENTAGE RATE OF EMPLOYEE COMPENSATION

	Total Percent
Salaries with Retirement Plan	125.00%
Repairs	2.00%
Rents	4.00%
Taxes	1.00%
Depreciation	3.00%
Dues & Subscriptions	1.00%
Utilities (Electric, etc.)	1.00%
Insurance	4.00%
Professional Services	3.00%
Office Supplies & Services	2.00%
Computer Service	4.00%
Recruitment & Training	2.00%
Telephone	4.00%
Reproduction	1.00%
Automotive Expense	2.00%
Misc. Services & Expenses	0.00%
IDOT Approved Rate	**159.00%**

*Payroll Burden and Indirect Cost

EXHIBIT G

OAK GROVE ROAD BRIDGE OVER DRAINAGE DITCH
MCHENRY COUNTY DIVISION OF TRANSPORTATION
PHASE 1 ENGINEERING SERVICES - EXPENSE SUMMARY

	Travel					
	Miles @$0.56	Days @$65	Mileage Cost	Postage	Copies (Outside)	Additional Expense
1- PROJECT INITIATION AND DATA COLLECTION						
Vehicle Expense (262 miles @ $0.56/mi)	262		$146.72			
2- TOPOGRAPHIC SURVEY						
Vehicle Expense (50 miles @ $0.56/mi)	50		$28.00			
Vehicle Expense ($65/day @ 6 days)		6	$390.00			
3- TRAFFIC ANALYSIS						
Postage (2 packages @ $10/ea)				$ 20.00		
Copies (3 @ $20/ea)					$60.00	
4- ALTERNATIVE ANALYSIS						
Postage (2 packages @ $10/ea)				$ 20.00		
Copies (3 @ $20/ea)					$60.00	
5- PRELIMINARY DESIGN						
6- DRAINAGE ANALYSIS						
Postage (2 packages @ $10/ea)				$ 20.00		
Copies (3 @ $20/ea)					$60.00	
7- HYDRAULIC REPORT						
Postage (2 packages @ $10/ea)				$ 20.00		
Copies (4 @ $20/ea)					$80.00	
IDNR Permit Review Fee						$5,000.00
8- ENVIRONMENTAL COORDINATION AND PERMITTING						
Vehicle Expense (70 miles @ $0.56/mi)	70		$39.20			
Postage (5 packages @ $10/ea)				$ 50.00		
Copies (6 @ $20/ea)					$120.00	
9- SPECIAL WASTE ASSESSMENT						
Vehicle Expense (50 miles @ $0.56/mi)	50		$28.00			
Environmental Data Resources						$800.00
10- MEETINGS						
Vehicle Expense (946 miles @ $0.56/mi)	946		$529.76			
Postage (2 packages @ $10/ea)				$ 20.00		
Copies (3 @ $20/ea)					$60.00	
11- PUBLIC INVOLVEMENT						
Postage (5 packages @ $10/ea)				$ 50.00		
Printing, Exhibits (5 @ $20/ea)					$100.00	
12- PROJECT DEVELOPMENT REPORT						
Postage (4 packages @ $10/ea)				$ 40.00		
Copies (6 @ $20/ea)					$120.00	
13- GEOTECHNICAL REPORT						
14- RIGHT OF WAY AND BOUNDARY						
Vehicle Expense (20 miles @ $0.56/mi)	20		$11.20			
Copies from Recorder (5 @ $20/ea)					$100.00	
Title Commitments (5 @ $500/ea)						$2,500.00
15- QA/QC						
16- MANAGE PROJECT						
Subtotals	**1,398**	**miles**	**$1,172.88**	**$240.00**	**$760.00**	**$8,300.00**

Total Expenses **$10,472.88**

EXHIBIT H

OAK GROVE ROAD BRIDGE OVER DRAINAGE DITCH
MCHENRY COUNTY DIVISION OF TRANSPORTATION
PHASE I ENGINEERING SERVICES - MANHOUR SUMMARY

	Task Manhours	Total Manhours
1- PROJECT INITIATION AND DATA COLLECTION		
Data Collection:		
Existing Roadway and Structure Plans with Inspection Reports	4	
GIS Shape Files	4	
Aerial Photography	2	
Maintenance and Flooding Records	2	
Drainage/Field Tile Studies	6	
Crash Data	2	
ROW/Property Ownership	4	
Available Traffic Counts	2	
Field Evaluation	12	
Agency Coordination	8	
Utility Coordination and adding linework to model file	12	
Total task manhours		**58**
2- TOPOGRAPHIC SURVEY		
Topographic Survey:		
Establish Datum	2	
ROW Research and Locate Area Iron Pipes	16	
Set Station and Control	20	
Level Circuit	2	
Roadway topography and cross sections-Oak Grove Road	40	
Stream Surveys (forked creek upstream requires additional x-secs)	40	
Plot data and Establish Digital Terrain Model	40	
Total task manhours		**160**
3- TRAFFIC ANALYSIS		
Traffic Forecasting	2	
Accident Analysis	6	
Total task manhours		**8**
4- ALTERNATIVE ANALYSIS		
Structure Type Study	66	
Abbreviated Bridge Condition Report	40	
Total task manhours		**106**

EXHIBIT H

OAK GROVE ROAD BRIDGE OVER DRAINAGE DITCH
MCHENRY COUNTY DIVISION OF TRANSPORTATION
PHASE I ENGINEERING SERVICES - MANHOUR SUMMARY

	Task Manhours	Total Manhours
5- PRELIMINARY DESIGN		
Right of Way Impacts	24	
Geometric Design:	40	
Plan and Profiles (1 sheet total)	32	
Typical Sections	12	
Cross sections (32 cross sections)	64	
Conceptual Barrier Warrant Investigation	6	
Estimate of Cost and Schedule	14	
Preliminary Structure Design	16	
Maintenance of Traffic	8	
Total task manhours		**216**
6- DRAINAGE ANALYSIS		
Location Drainage Technical Memorandum (LDTM):		
Narrative	16	
General Location Drainage Map	2	
FIRM Exhibit	2	
Existing Drainage Plan	10	
Proposed Drainage Plan	12	
Study Assembly	4	
Total task manhours		**46**
7- HYDRAULIC REPORT		
Hydraulic Report (HR):		
Survey Note Conversion and Plotting	12	
WIT and Define Required Opening	18	
Hydraulic Report Data Sheet	8	
Hydrologic Model	24	
Calibration of Hydrologic Model	8	
Hydraulic Model (indepen. analysis) Based on Survey	54	
Hydraulic Model (regulatory analysis) Based on FIS	0	
Compen. Stor. Determination	20	
Scour Analysis	24	
Narrative	36	
Report Assembly	6	
Prepare PBDHR Form	6	
Scour Critical Evaluation Coding Report	2	
Total task manhours		**218**

EXHIBIT H

OAK GROVE ROAD BRIDGE OVER DRAINAGE DITCH
MCHENRY COUNTY DIVISION OF TRANSPORTATION
PHASE I ENGINEERING SERVICES - MANHOUR SUMMARY

	Task Manhours	Total Manhours
8- ENVIRONMENTAL COORDINATION AND PERMITTING		
Environmental Survey Request	24	
USACOE Early Coordination	4	
McHenry County P&D Early Coordination	12	
Wetland Delineation	32	
Wetland Mitigation (Banking)	0	
Wetland Impact Evaluation	10	
IDNR-OWR Floodway Construction Permit	20	
Total task manhours		**102**
9- SPECIAL WASTE ASSESSMENT		
Environmental Regulatory Records Review	4	
Site Visit and Summary of Findings	12	
Total task manhours		**16**
10- MEETINGS		
Meetings:		
County (2 total): (Preliminary, Prefinal)	16	
Regulatory Agencies (1 total): County P&D (1)	8	
IDOT (1 total): (Kickoff)	8	
IDOT/FHWA Coordination Meetings (1)	8	
Individual Property Meetings (1 total)	4	
Total task manhours		**44**
11- PUBLIC INVOLVEMENT		
Notification letters and supporting exhibits	20	
Total task manhours		**20**
12- PROJECT DEVELOPMENT REPORT		
Phase I Documentation for CE II	88	
Exhibits for PDR	32	
Total task manhours		**120**

EXHIBIT H

OAK GROVE ROAD BRIDGE OVER DRAINAGE DITCH
MCHENRY COUNTY DIVISION OF TRANSPORTATION
PHASE I ENGINEERING SERVICES - MANHOUR SUMMARY

		Task Manhours	Total Manhours
13- GEOTECHNICAL REPORT			
Pavement Cores and Soil Borings		4	
Structural Borings		4	
Total task manhours			**8**
14- RIGHT OF WAY AND BOUNDARY			
Plat of Highways		90	
Total task manhours			**90**
15- QA/QC			
QA/QC by Senior Staff		26	
Total task manhours			**26**
16- MANAGE PROJECT			
Resource planning/internal meetings		36	
Budget control & Schedule		8	
Contract administration/invoicing		18	
Electronic Deliverables		4	
Total task manhours			**66**
	TOTALS	**1304**	**1304**

SOIL AND MATERIAL CONSULTANTS, INC.

office: 1-847-870-0544
fax: 1-847-870-0661
www.soilandmaterialconsultants.com
us@soilandmaterialconsultants.com

September 23, 2014
Proposal No. 13,896

Mr. Brandon Buzzell, P.E., S.E.
Baxter & Woodman, Inc.
8678 Ridgefield Road
Crystal Lake, IL 60012

Re: Geotechnical Investigation
Oak Grove Road Bridge Replacement
McHenry County, Illinois

Dear Mr. Buzzell:

We are submitting for your consideration our proposal to provide the requested pavement section investigation and subsurface soil condition analysis for the proposed Oak Grove Road Bridge replacement in McHenry County, Illinois.

Structure Borings

A total of 2 structure borings will be provided at the requested locations in areas accessible to our truck mounted drilling equipment. The investigation will be completed in accordance with current IDOT requirements. Soil samples will be obtained every 2.5 feet using a split spoon sampler to depths of 30.0 feet and every 5.0 feet thereafter to depths of 75.0 feet. Cohesive soils will be tested in the field to determine unconfined compressive strength.

Pavement Investigation

Existing pavement materials will be cored at the structure boring locations as well as at two locations approximately 50 feet from each abutment to determine material types and thicknesses. At two locations in the exiting roadway and at 4 locations off the shoulder the soils will be auger drilled to establish the soil profile within 10.0 feet of existing surface elevations. A soil sample will be obtained immediately below the base using a split barrel sampler and at 2.5 foot intervals for the remaining depth of the boring. A pocket penetrometer reading will be performed on testable samples of cohesive soil.

Laboratory testing of all soils will include determination of moisture content. Cohesive soils will be tested further for determination of dry unit weight. In addition grain-size analysis and Atterberg Limits testing will be performed on soils located at the creek elevation for foundation design and at the proposed subgrade elevation for pavement design.

Two additional cores will be performed on the bridge to obtain samples of the bituminous bridge deck wearing surface and waterproofing membrane. The samples will be submitted to a laboratory that has the National Voluntary Laboratory Accreditation Program (NVLAP)

accreditation and is equipped for performing analysis of nonfriable organically bound asbestos using gravimetric reduction and PLM.

Engineering Evaluation, Report

The field investigation and laboratory testing will be completed under the direction of a Registered Professional Engineer. Preliminary information will be available upon request. Upon completion of the investigation an engineering evaluation will be completed and a report prepared. The report will present our findings and appropriate recommendations.

Charges

Our unit charges and the estimated total cost for the investigation are indicated on the attached Schedule of Fees. This schedule also indicates the anticipated frequency as well as type of field and laboratory testing proposed for this investigation. Final billing will be based on actual services rendered at the indicated rates.

Your consideration of this proposal is appreciated. The attached General Conditions are understood to be part of this proposal. If this proposal is acceptable, please execute and return one copy to our office. Should you have any questions concerning the scope of the investigation, please let us know.

Very truly yours,

SOIL AND MATERIAL CONSULTANTS, INC.

Thomas P. Johnson, P.E.
President

TPJ:dd

Proposal Accepted By: Client _____

Street _____

Town _____ State _____ Zip Code _____

Phone ( ) _____ Fax ( ) _____

Signature _____ Position _____

Printed Name _____ Date _____

SCHEDULE OF FEES -- PAVEMENT AND SUBSURFACE SOIL INVESTIGATION

Item	Units		Fee		Estimated Cost
FIELD					
Boring Layout	2	hr.	$ 85.00	/hr.	$ 170.00
Utility Location	2	hr.	$ 85.00	/hr.	$ 170.00
Mobilization	1		$ Lump	Sum	$ 900.00
Drilling – Structure (2 at 75')	150	ft.	$ 16.00	/ft.	$ 2,400.00
Drilling – Roadway (6 at 10')	60	ft.	$ 14.00	/ft.	$ 840.00
Split Barrel Sampling	66	ea.	$ 10.00	ea.	$ 660.00
Pavement Coring	6	ea.	$ 110.00	ea.	$ 660.00
LABORATORY					
Soil					
Moisture Content	70	ea.	$ 4.00	ea.	$ 280.00
Unit Weight	55	ea.	$ 4.00	ea.	$ 220.00
Unconfined Compressive Strength	55	ea.	$ 7.00	ea.	$ 385.00
Hydrometer Analysis	3	ea.	$ 80.00	ea.	$ 240.00
Atterberg Limits	3	ea.	$ 55.00	ea.	$ 165.00
Asbestos					
Bituminous Bridge Deck Wearing Surface	2	ea.	$ 130.00	ea.	$ 260.00
Asbestos					
Waterproofing Membrane	2	ea.	$ 30.00	ea.	$ 60.00
REPORT					
Senior Engineer (P.E.)	16	hr.	$ 130.00	/hr.	$ 2,080.00
			Estimated Total Cost:		$ 9,490.00

ADDITIONAL ENGINEERING SERVICES					
Senior Engineer (P.E.) -Includes additional pile length calculations and review of pavement design if requested	5	hr.	$ 130.00	/hr.	$ 650.00