


DRAFT

Municipality	LOCAL AGENCY	 Illinois Department of Transportation	CONSULTANT	Name Bollinger, Lach & Associates Inc
Township				Address 333 Pierce Road Suite 200
County Lake County – Division of Transportation		City Itasca		
Section 12-00999-40-RS		State IL		

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 improvement of the above SECTION. Motor Fuel Tax Funds, allotted to the LA by the State of Illinois under the general supervision of the State Department of Transportation, hereinafter called the "DEPARTMENT", will be used entirely or in part to finance ENGINEERING services as described under AGREEMENT PROVISIONS.

Section Description

Name Darrell Road + Hart Road - Monaville Road

Route _____ Length 3.50 Mi. _____ FT (Structure No. _____)

Termini Darrell Rd(Roberts to Rte176),Hart Rd(Lake Cook to 1500' S. US14),Monaville Rd(600' E Cedar Lk to 1500'W.83)

Description:

Phase II Engineering of PS&E docs for the resurfacing projectst stated above.

Agreement Provisions

The Engineer Agrees,

1. To perform or be responsible for the performance of the following engineering services for the LA, in connection with the proposed improvements herein before described, and checked below:
 - a. ☒ Make such detailed surveys as are necessary for the preparation of detailed roadway plans (Horiz. Control)
 - b. ☐ Make stream and flood plain hydraulic surveys and gather high water data, and flood histories for the preparation of detailed bridge plans.
 - c. ☐ Make or cause to be made such soil surveys or subsurface investigations including borings and soil profiles and analyses thereof as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations are to be made in accordance with the current requirements of the DEPARTMENT.
 - d. ☐ 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.
 - e. ☐ Prepare Army Corps of Engineers Permit, **Lake County Stormwater Management Commission Permit**, Department of Natural Resources-Office of Water Resources Permit, Bridge waterway sketch, and/or Channel Change sketch, Utility plan and locations, and Railroad Crossing work agreements.
 - f. ☐ Prepare Preliminary Bridge design and Hydraulic Report, (including economic analysis of bridge or culvert types) and high water effects on roadway overflows and bridge approaches.
 - g. ☒ Make complete general and detailed plans, special provisions, proposals and estimates of cost and furnish the LA with **one (1) copy of each document in both hardcopy and electronic format**. Additional copies of any or all documents, if required, shall be furnished to the LA by the ENGINEER at the ENGINEER's actual cost for reproduction.
 - h. ☐ Furnish the LA with survey and drafts in **duplicate** of all necessary right-of-way dedications, construction easement and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.
 - i. ☐ Assist the LA in the tabulation and interpretation of the contractors' proposals.

- j. ☐ Prepare the necessary environmental documents in accordance with the procedures adopted by the DEPARTMENT's Bureau of Local Roads & Streets.
 - k. ☐ Prepare the Project Development Report when required by the DEPARTMENT.
 - l. ☒ **Services as included and/or defined in the attached Scope of Services.**
2. That all reports, plans, plats and special provisions to be furnished by the ENGINEER pursuant to the AGREEMENT, will be in accordance with current standard specifications and policies **of the LA and** of the DEPARTMENT. It is being understood that all such reports, plats, plans and drafts shall, before being finally accepted, be subject to approval by the LA and the DEPARTMENT.
 3. To attend conferences at any reasonable time when requested to do so by representatives of the LA or the Department.
 4. In the event plans or surveys are found to be in error during construction of the SECTION and revisions of the plans or survey corrections are necessary, the ENGINEER agrees that the ENGINEER will perform such work without expense to the LA, even though final payment has been received by the ENGINEER. The ENGINEER shall give immediate attention to these changes so there will be a minimum delay to the CONTRACTOR.
 5. That basic survey notes and sketches, charts, computations and other data prepared or obtained by the ENGINEER pursuant to this AGREEMENT will be made available, upon request, to the LA or the DEPARTMENT without cost and without restriction or limitations as to their use.
 6. That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will show the ENGINEER's professional seal where such is required by law.

The LA Agrees,

1. ~~To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT according to the following method indicated by a check mark:~~
 - a. ☐ ~~A sum of money equal to _____ percent of the awarded contract cost of the proposed improvement as approved by the DEPARTMENT.~~
 - b. ☐ ~~A sum of money equal to the percent of the awarded contract cost for the proposed improvement as approved by the DEPARTMENT based on the following schedule:~~

Schedule for Percentages Based on Awarded Contract Cost

Awarded Cost	Percentage Fees	(see note)
Under \$50,000	_____	%
	_____	%
	_____	%

Note: Not necessarily a percentage. Could use per diem, cost-plus or lump sum.

2. To pay for all services rendered in accordance with this AGREEMENT at the actual cost of performing such work plus 2.6 percent to cover profit, overhead and readiness to serve - "actual cost" being defined as material cost plus payrolls, insurance, social security and retirement deductions. Traveling and other out-of-pocket expenses will be reimbursed to the ENGINEER at the ENGINEER's actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided in section 1 of the ENGINEER AGREES. If the ENGINEER sublets all or part of this work, the LA will pay the cost to the ENGINEER plus an additional service charge of up to five (5) percent.

"Cost to Engineer" to be verified by furnishing the LA and the DEPARTMENT copies of invoices from the party doing the work. The classifications of the employees used in the work should be consistent with the employee classifications for the services performed. If the personnel of the firm, including the Principal Engineer, perform routine services that should normally be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the work performed.

The Total Not-to-Exceed Contract Amount shall be \$177,277.80

3. That payments due the ENGINEER for services rendered in accordance with this AGREEMENT will be made as soon as practicable after the services have been performed in accordance with the following schedule:
 - a. Upon completion of detailed plans, special provisions, proposals and estimate of cost - being the work required by section 1 of the ENGINEER AGREES - to the satisfaction of the LA and their approval by the DEPARTMENT, 90 percent of the total fee due under this AGREEMENT based on the approved estimate of cost.
 - b. Upon award of the contract for the improvement by the LA and its approval by the DEPARTMENT, 100 percent of the total fee due under the AGREEMENT based on the awarded contract cost, less any amounts paid under "a" above.

By Mutual agreement, partial payments, not to exceed 90 percent of the amount earned, may be made from time to time as the work progresses.

4. That, should the improvement be abandoned at any time after the ENGINEER has performed any part of the services provided for in sections 1 and 3 of the ENGINEER AGREES and prior to the completion of such services, the LA shall reimburse the ENGINEER for the ENGINEER's actual costs plus 2.6 percent incurred up to the time the ENGINEER is notified in writing of such abandonment - "actual cost" being defined as in paragraph 2 of the LA AGREES.
5. That, should the LA require changes in any of the detailed plans, specifications or estimates except for those required pursuant to paragraph 4 of the ENGINEER AGREES, after they have been approved by the DEPARTMENT, the LA will pay the ENGINEER for such changes on the basis of actual cost plus 2.6 percent to cover profit, overhead and readiness to serve - "actual cost" being defined as in paragraph 2 of the LA AGREES. It is understood that "changes" as used in this paragraph shall in no way relieve the ENGINEER of the ENGINEER's responsibility to prepare a complete and adequate set of plans and specifications.

It is Mutually Agreed,

1. That any difference between the ENGINEER and the LA concerning their interpretation of the provisions of this Agreement shall be referred to a committee of disinterested parties consisting of one member appointed by the ENGINEER, one member appointed by the LA and a third member appointed by the two other members for disposition and that the committee's decision shall be final.
2. 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 surveys, permits, agreements, preliminary bridge design & hydraulic report, drawings, specifications, partial and completed estimates and data, if any from traffic studies and soil survey and subsurface investigations with the understanding that all such material becomes the property of the LA. The ENGINEER shall be paid for any services completed and any services partially completed in accordance with section 4 of the LA AGREES.
3. That if the contract for construction has not been awarded one year after the acceptance of the plans by the LA and their approval by the DEPARTMENT, the LA will pay the ENGINEER the balance of the engineering fee due to make 100 percent of the total fees due under this AGREEMENT, based on the estimate of cost as prepared by the ENGINEER and approved by the LA and the DEPARTMENT.
4. That the ENGINEER warrants that the ENGINEER has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this contract, and that the ENGINEER has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For Breach or violation of this warranty the LA shall have the right to annul this contract without liability.

IN WITNESS WHEREOF, the parties have caused the AGREEMENT to be executed in quintuplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

ATTEST:

By _____

Lake County Clerk

(Seal)

County of Lake of the
(Municipality/Township/County)

State of Illinois, acting by and through its

County Board

By _____

Title Chairman of the County Board

RECOMMENDED FOR EXECUTION

Paula Trigg, P.E.
Director of Transportation/County Engineer
Lake County

Executed by the ENGINEER:

ATTEST:

By  _____

Title Chief Executive Officer

Bollinger, Lach and Associates, Inc.

Engineering Firm

333 Pierce Road, Suite 200

Street Address

Itasca, IL

City, State

By  _____

Title Vice President

Approved

Date

Department of Transportation

Regional Engineer

County Engineer
On behalf of IDOT pursuant to Agreement
of Understanding dated January 22, 2003

Note: Five (5) Original Executed Contracts – (2) LCDOT; (2) IDOT District 1, Local Roads; (1) Consultant

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME
PRIME/SUPPLEMENT

Bollinger, Lach & Associates, Inc.

DATE 09/24/12
PTB NO.

CONTRACT TERM
START DATE
RAISE DATE

6 MONTHS
11/5/2012
1/1/2013

OVERHEAD RATE
COMPLEXITY FACTOR
% OF RAISE

126.61%
0
3.00%

ESCALATION PER YEAR

11/5/2012 - 1/1/2013
2 6

= 33.33%
= 1.0200

1/2/2013 - 5/1/2013
4 6

68.67%

The total escalation for this project would be:

2.00%

PAYROLL RATES

FIRM NAME
PRIME/SUPPLEMENT
PSB NO.

Bollinger, Lach & Assoc DATE

09/24/12

ESCALATION FACTOR

2.00%

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Director	\$70.00	\$70.00
Resident Engineer II	\$42.65	\$43.50
Project Manager	\$41.62	\$42.45
Design Engineer	\$26.12	\$26.64
CADD Technician II	\$31.75	\$32.39
Survey Project Manager	\$39.18	\$39.96
Party Chief	\$25.00	\$25.50
Instrument Man	\$16.25	\$16.58
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00

Subconsultants

FIRM NAME Bollinger, Lach & Associates, Inc.

DATE 09/24/12

PRIME/SUPPLEMENT _____

PSB NO. _____

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

COST PLUS FIXED FEE

FIRM

Bollinger, Lach & Associates, Inc.

DATE _____

09/24/12

PSB

OVERHEAD RATE

1.2661

PRIME/SUPPLEMENT

COMPLEXITY FACTOR

0
100%

D-Darrell Road Resurfacing, H-Hart Road Resurfacing, M-Monaville Road Resurfacing

[illegible]

W
B
D

DBE 0.00%

PREPARED BY THE AGREEMENTS UNIT

AVERAGE HOURLY PROJECT RATES

Bollinger, Lach & Associates, Inc.

FIRM

SSA

PRIME/SUPPLEMENT

DATE _____

09/24/12

LEADS

4

FO

5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	M-Pre-Final Engineering			M-Finial Engineering			M-Meetings			M-QA/QC			M-Phase III Coordination			M-Administrative		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Director	70.00	4	1.69%	1.19	3	1.73%	1.21	12	23.08%	16.15	16	33.33%	23.33	4	9.09%	6.36			
Resident Engineer II	43.50																		
Project Manager	42.45	60	25.42%	10.79	50	28.90%	12.27	20	38.46%	16.33	32	66.67%	28.30	40	90.91%	38.59	18	52.94%	22.47
Design Engineer	26.64	86	36.44%	9.71	60	34.68%	9.24	20	38.46%	10.25							16	47.06%	12.54
CADD Technician II	32.39	86	36.44%	11.80	60	34.68%	11.23												
Survey Project Manage	39.96																		
Party Chief	25.50																		
Instrument Man	16.58																		
TOTALS		236	100%	\$33.49	173	100%	\$33.96	52	100%	\$42.73	48	100%	\$51.63	44	100%	\$44.96	34	100%	\$35.01

PREPARED BY THE AGREEMENTS UNIT

Section No. 12-00999-40-RS
Darrell Road Resurfacing
(Roberts Road to IL Route 176)
BLA Project No.: 877-012

Section No. 12-00999-40-RS
Hart Road Resurfacing
(Lake Cook Road to 1500' South of US14)
BLA Project No.: 877-012

Section No. 12-00999-40-RS
Monaville Road Resurfacing
(Cedar Lake Road to 1500' West of IL Route 83)
BLA Project No.: 877-012

PROJECT SCOPE DESCRIPTION

Darrell Road Resurfacing (Roberts Road to IL Route 176)-(Combined in Hart Rd. Plan set)

The project scope will consist of the preparation of plans, specifications and quantities for the resurfacing of Darrell Road from Roberts Road to IL Route 176 (Just short of Thorntons Gas Station) in Lake County, Illinois. Plans, specifications and cost estimates will be prepared per LCDOT standards. BLA will verify the height and condition of 3 sections of guardrail to see if they meet current design guidelines. If found not to meet current guidelines they will be replaced with the Midwest Guardrail system. Consultant will review if there are any other areas that require guardrail be installed along the route (no topographic survey is included). Particular attention will be given to the steep slope on the east side, south of Main Street for possible guardrail / partial replacement. Pavement will be placed under guardrails (currently only aggregate). Consultant will verify limits per previous 2011 resurfacing projects and upcoming project on IL 176. Existing storm sewer inspection will be made to determine if repair or jetting / cleaning is required with particular attention to Culverts 135 and 136 to determine if they need replacement or push together. BLA will review existing RPM locations, detector loops (replacement of those not done on Roberts Road resurfacing), Route 176 signal control during construction and inclusion of bike friendly shoulders where applicable. BLA will also look at soft shoulder by the bypass lane at Westria Way and check the function of the existing underdrain as possible and document findings. BLA will collect traffic data on Darrell at Main Street 4-Way stop to determine if 4-Way stop is compliant.

Surveys: BLA Survey Staff will establish State Plane Illinois East Zone Coordinates for the 3 miles of roadway resurfacing. The following items will be completed along the route:

- Horizontal Control: BLA will perform the horizontal alignment check for the entire project length (Roberts Road to IL Route 176). No vertical control is included in this scope.
- Alignment Ties: Provide Field and Office Survey Staff support to establish alignment ties for the entire project length.

Roadway Evaluation: BLA will inspect the 1.7 miles of roadway for pavement width/ condition, shoulder vs. curb and gutter locations, approximate culvert locations and conditions, and locations of pavement markings, guardrails, driveways, manholes/utilities in the pavement only and loop detectors. This time will include field inspections as well as office time to delineate the items found.

Title Sheet: BLA will prepare the title sheet according to the BDE manual chapter 63, state job numbering form, along with the mixture requirement chart, Index of Sheets and as directed by the Lake County Division of Transportation (LCDOT). Mylar will be submitted to the Lake County District Engineer.

Notes and Standards: The sheet will include a list of applicable highway standards; general notes (IDOT and LCDOT). The Mylar sheet will be submitted to LCDOT.

Summary of Quantities: BLA will prepare the sheets including construction and funding code breakdowns, the quantity calculations/take off for each pay item and preparation of quantity book for delivery to LCDOT. The Mylar sheets will be submitted to LCDOT.

Schedule of Quantities: The sheets will have items difficult to locate in the plans.

Typical Sections: The typical section sheets will be prepared which will include five existing and five proposed typical sections and notes and the applicable legend items.

Alignment Ties: The sheet will include complete alignment with curve data and ties for the roadway per the alignment plats provided to BLA from LCDOT.

Base Sheet: The base sheet will be prepared for the geometry for the length of the project along Darrell Road from Roberts Road to IL Route 176. Plans will consist of aerials with the alignment overlaid.

Traffic Control Plans: The traffic control plans will be prepared in compliance with the LCDOT and IDOT standard MOT details. Special care will be taken regarding the intersection work areas.

Removal and Adjustment Item Sheets: The roadway plans will have both top and bottom plan views showing the existing aerial, the existing limited verified topography and items to be adjusted, removed, replaced, butt joints, milling etc. It will have two panel views.

Plan Sheets: The roadway plans will have both top and bottom plan views showing the existing aerial, the existing limited verified topography and proposed roadway improvements including loop detector replacements, erosion control measures and pavement markings. It will have two panel views. No drainage or utility improvements beyond this are included in this scope. BLA will include temporary erosion control plans for the area disturbed by the improvements as needed

Special Provisions: Detailed special provisions will be prepared for the roadway items and the

contract documents will include them for the Pre-final and Final submittals.

Estimate of Time: The form will be prepared and updated for the Final plan submittal.

Estimate of Cost: The forms will be prepared and updated per each submittal (Pre-final and Final) for all the items.

Consultant Details: BLA will prepare Butt Joint Details and guardrail details as required.

District Details: BLA will utilize IDOT district details as needed and include them in the plans. We are estimating at 2 details per sheet - 7 district one roadway detail sheets and 12 LCDOT detail sheets.

Cross Sections: No cross sectioning work is included in this scope.

Meeting/Field Checks/Coordination: See attached sheet for the detail break down of the items.

QA/QC: BLA will perform the QA/QC throughout the project however; the detailed QA/QC will be emphasized at the time of the two-milestone submittals.

Phase III Coordination: The coordination during Phase III will be made as needed as per the instruction from LCDOT.

Utility Coordination: BLA will coordinate with the utility companies if structures are found within the pavement that will need to be adjusted. Given LCDOT's standards regarding no utilities in the pavement, we are anticipating minimal adjustments and have included time for coordinating with one utility company only.

Coordination with the local agencies will go through LCDOT.

Hart Road Resurfacing (Lake Cook Road to 1500' South of US14)-(Combined in Darrell Plan Set)

The project scope will consist of the preparation of plans, specifications and quantities for the resurfacing of Hart Road from Lake Cook Road to 1500' South of US14 in Lake County, Illinois. Limits of north end of the project compared to the Hart Road/Route 14 Railroad project will be verified and the limits of project on the south per the limit of work performed by IDOT on Lake Cook road. Plans, specifications and cost estimates will be prepared per LCDOT standards. Contract documents will constrain the resurfacing to the summer months when the standard school year is out of session. Verification of guardrail heights along the entire corridor of the project limit to see if they meet current design guidelines will be completed and if found not to they will be replaced with the Midwest Guardrail system. Consultant will review if there are any other areas that require guardrail be installed along the route (no topographic survey is included). Consultant will verify limits per previous 2011 resurfacing projects. Existing storm sewer inspection will be made to determine if jetting / cleaning is required. Ditch lines will be evaluated and noted to be cleaned if necessary. Driveway culverts and cross road culverts will be inspected and noted to be replaced as required. BLA will review existing RPM locations,

detector loops and coordinate with Cook County DOT for signal control during construction. The traffic counter box on north end of project will be specified for removal. The inclusion of bike friendly shoulders where applicable will be followed. BLA will verify any manholes (and ownership) in pavement and coordinate with utility company as they may want to raise their own facilities.

Surveys: BLA Survey Staff will establish State Plane Illinois East Zone Coordinates for the 0.6 miles of roadway resurfacing. The following items will be completed along the route:

- Horizontal Control: BLA will perform the horizontal alignment check for the entire project length (Lake Cook Road to 1500' South of US14). No vertical control is included in this scope.
- Alignment Ties: Provide Field and Office Survey Staff support to establish alignment ties for the entire project length.

Roadway Evaluation: BLA will inspect the 0.6 miles of roadway for pavement width/ condition, shoulder vs. curb and gutter locations, approximate culvert locations and conditions, and locations of pavement markings, guardrails, driveways, manholes/utilities in the pavement only and loop detectors. This time will include field inspections and well as office time to delineate the items found.

Summary of Quantities: BLA will prepare the sheets including construction and funding code breakdowns, the quantity calculations/take off for each pay item and preparation of quantity book for delivery to LCDOT. The Mylar sheets will be submitted to LCDOT.

Schedule of Quantities: The sheets will have items difficult to locate in the plans.

Typical Sections: The typical section sheets will be prepared which will include five existing and five proposed typical sections and notes and the applicable legend items.

Alignment Ties: The sheet will include complete alignment with curve data and ties for the roadway per the alignment plats provided to BLA from LCDOT.

Base Sheet: The base sheet will be prepared for the geometry for the length of the project along Hart Road from Lake Cook Road to 1500' south of US14. Plans will consist of aerials with the alignment overlaid.

Traffic Control Plans: The traffic control plans will be prepared in compliance with the LCDOT and IDOT standard MOT details. Special care will be taken regarding the intersection work areas.

Removal and Adjustment Item Sheets: The roadway plans will have both top and bottom plan views showing the existing aerial, the existing limited verified topography and items to be adjusted, removed, replaced, butt joints, milling etc. It will have two panel views.

Plan Sheets: The roadway plans will have both top and bottom plan views showing the existing aerial, the existing limited verified topography and proposed roadway improvements including

loop detector replacements, erosion control measures and pavement markings. It will have two panel views. No drainage or utility improvements beyond this are included in this scope. BLA will include temporary erosion control plans for the area disturbed by the improvements as needed. It is anticipated that the impacts for the shoulder removal operations may disturb up to an acre of soil and that the NPDES permit may be required. Therefore we have included time to prepare the permit within this scope.

Special Provisions: Any additional detailed special provisions will be prepared for the roadway items that are in addition to the Darrell Road special provisions and the contract documents will include them for the Pre-final and Final submittals.

Estimate of Time: The form will be prepared and updated for the Final plan submittal.

Estimate of Cost: The forms will be prepared and updated per each submittal (Pre-final and Final) for all the items.

Consultant Details: BLA will prepare Butt Joint Details.

Cross Sections: No cross sectioning work is included in this scope.

Meeting/Field Checks/Coordination: See attached sheet for the detail break down of the items.

QA/QC: BLA will perform the QA/QC throughout the project however; the detailed QA/QC will be emphasized at the time of the two-milestone submittals.

Phase III Coordination: The coordination during Phase III will be made as needed as per the instruction from LCDOT.

Utility Coordination: BLA will coordinate with the utility companies if structures are found within the pavement that will need to be adjusted. Given LCDOT's standards regarding no utilities in the pavement, we are anticipating minimal adjustments and have included time for coordinating with one utility company only. BLA will coordinate with LCDOT on the existing fiber optic signal connection location.

Coordination with the local agencies will go through LCDOT.

Monaville Road Resurfacing (600' East of Cedar Lake Road to 1500' West of IL Route 83)

The project scope will consist of the preparation of plans, specifications and quantities for the resurfacing of Monaville Road from 600 feet east of Cedar Lake Road to 1500' West of IL Route 83 (West of CN railroad tracks) in Lake County, Illinois. Plans, specifications and cost estimates will be prepared per LCDOT standards. Existing storm sewer inspection will be made to determine if jetting / cleaning is required. BLA will inspect existing driveway and cross culverts and note if needed to be replaced or repaired. Existing ditch lines will also be noted for cleaning if necessary. The contract documents will specify that the resurfacing shall take place at the same time as the Cedar Lake at Monaville Roundabout construction during the summer school months when there is the road closure. Inclusion of bicycle friending shoulders when curb and gutter is not present will be evaluated.

Surveys: BLA Survey Staff will establish State Plane Illinois East Zone Coordinates for the 1.2 miles of roadway resurfacing. The following items will be completed along the route:

- Horizontal Control: BLA will perform the horizontal alignment check for the entire project length (Cedar Lake Road to 1500' West of IL Route 83). No vertical control is included in this scope.
- Alignment Ties: Provide Field and Office Survey Staff support to establish alignment ties for the entire project length.

Roadway Evaluation: BLA will inspect the 1.2 miles of roadway for pavement width/ condition, shoulder vs. curb and gutter locations, approximate culvert locations and conditions, and locations of pavement markings, guardrails, driveways and manholes/utilities in the pavement only. This time will include field inspections and well as office time to delineate the items found.

Title Sheet: BLA will prepare the title sheet according to the BDE manual chapter 63, state job numbering form, along with the mixture requirement chart, Index of Sheets and as directed by the Lake County Division of Transportation (LCDOT). Mylar will be submitted to the Lake County District Engineer.

Notes and Standards: The sheet will include a list of applicable highway standards; general notes (IDOT and LCDOT). The Mylar sheet will be submitted to LCDOT.

Summary of Quantities: BLA will prepare the sheets including construction and funding code breakdowns, the quantity calculations/take off for each pay item and preparation of quantity book for delivery to LCDOT. The Mylar sheets will be submitted to LCDOT.

Schedule of Quantities: The sheets will have items difficult to locate in the plans.

Typical Sections: The typical section sheets will be prepared which will include five existing and five proposed typical sections and notes and the applicable legend items.

Alignment Ties: The sheet will include complete alignment with curve data and ties for the roadway per the alignment plats provided to BLA from LCDOT.

Base Sheet: The base sheet will be prepared for the geometry for the length of the project along Monaville Road from Cedar Lake Road to 1500' West of IL Route 83. Plans will consist of arials with the alignment overlaid.

Traffic Control Plans: The traffic control plans will be prepared in compliance with the LCDOT and IDOT standard MOT details. Special care will be taken regarding the intersection work areas.

Removal and Adjustment Item Sheets: The roadway plans will have both top and bottom plan views showing the existing aerial, the existing limited verified topography and items to be adjusted, removed, replaced, butt joints, milling etc. It will have two panel views.

Plan Sheets: The roadway plans will have both top and bottom plan views showing the existing aerial, the existing limited verified topography and proposed roadway improvements including erosion control measures and pavement markings. It will have two panel views. No drainage or utility improvements beyond this are included in this scope. BLA will include temporary erosion control plans for the area disturbed by the improvements as needed. It is anticipated that the impacts for the shoulder removal operations may disturb up to an acre of soil and that the NPDES permit may be required. Therefore we have included time to prepare the permit within this scope.

Special Provisions: Detailed special provisions will be prepared for the roadway items and the contract documents will include them for the Pre-final and Final submittals.

Estimate of Time: The form will be prepared and updated for the Final plan submittal.

Estimate of Cost: The forms will be prepared and updated per each submittal (Pre-final and Final) for all the items.

Consultant Details: BLA will prepare Butt Joint Details.

District Details: BLA will utilize IDOT district details as needed and include them in the plans. We are estimating at 2 details per sheet - 7 district one roadway detail sheets and 12 LCDOT detail sheets.

Cross Sections: No cross sectioning work is included in this scope.

Meeting/Field Checks/Coordination: See attached sheet for the detail break down of the items.

QA/QC: BLA will perform the QA/QC throughout the project however; the detailed QA/QC will be emphasized at the time of the two-milestone submittals.

Phase III Coordination: The coordination during Phase III will be made as needed as per the instruction from LCDOT.

Utility Coordination: BLA will coordinate with the utility companies if structures are found within the pavement that will need to be adjusted. Given LCDOT's standards regarding no utilities in the pavement, we are anticipating minimal adjustments and have included time for coordinating with one utility company only.

Coordination with the local agencies will go through LCDOT.

BLA Manhours
PROJECT: Darrell Road -Section No. 12-00999--40-RS
BLA Project No. 877-012

<u>ITEM</u>	<u># OF SHEETS</u>	<u>MH PER SHEET</u>	<u>TOTAL MH'S</u>
Survey			
Horizontal Control Check (1.7 miles)			54
Roadway Evaluation			80
Title Sheet	1	6	6
Typical Section (5 Existing, 5 Proposed)	6	6	36
Notes/ Standards	1	8	8
Summary of Quantities	2	8	16
Schedule of Quantities	6	6	36
Base Sheets	8	8	64
Maintenance of Traffic	4	4	16
Removal and Adjustment Sheets	8	6	48
Plan/Pavement Marking/Erosion Control Sheets	8	8	64
Special Provisions (Hart Rd Time Incl)			32
Estimate of Time (Hart Rd Time Incl)			8
Estimate of Cost (PreFinal and Final)			32
Consultant Details	1	8	8
IDOT and LCDOT Details (2 details/sheet) (Hart Rd Incl)	19	1	19

Meeting/Field Checks/ Coordination		
LCDOT Office (1 kickoff, 1 Prefinal, 1 Final, 1 Precon) (2 staff/meeting) (Hart Road Combined Meetings)		24
Plan in Hand Field Review (Hart Rd. Incl)		24
Utility/ (mh adjustments, etc.) (Hart Rd. Incl)		32
Traffic Count Data and 4-way stop analysis Darrell Road at Main Street		32
QA/QC		28
Phase III Coordination		<u>26</u>
Sub-Total	64	693
Administration/ Management		<u>28</u>
Total	64	721

BLA Manhours
PROJECT: Hart Road - Section No. 12-00999-40-RS
BLA Project No. 877-012

<u>ITEM</u>	<u># OF SHEETS</u>	<u>MH PER SHEET</u>	<u>TOTAL MH'S</u>
Survey			
Horizontal Control Check (0.6 miles)			54
Roadway Evaluation			48
Typical Section (5 Existing, 5 Proposed)	5	6	30
Summary of Quantities	2	8	16
Schedule of Quantities	6	6	36
Base Sheets	3	8	24
Maintenance of Traffic	3	4	12
Removal and Adjustment Sheets	3	6	18
Plan/Pavement Marking/Erosion Control Sheets	3	8	24
Estimate of Cost (PreFinal and Final)			32
Consultant Details	1	8	8
QA/QC			26
Phase III Coordination			<u>32</u>
Sub-Total	26		360
Administration/ Management			<u>20</u>
Total	26		380

BLA Direct Costs
PROJECT: Darrell Road and Hart Road
BLA Project: 877-012

	<u># of Sets</u>	<u>Size</u>	<u># of Sheets</u>	<u>Rate per Sheet</u>	<u>Total</u>
<u>SURVEY DOCUMENTS</u>					
Vehicles	4			\$48.00	<u>\$192.00</u>
				Survey Total	\$192.00
<u>PRE-FINAL PLANS (90%)</u>					
Plan Sets (2 LCDOT, 2 Utilities, 2 Local Agencies)	6	Quarter	50	\$0.25	\$75.00
Special Provisions (unbound) (2 LCDOT)	6	8.5"x11"	40	\$0.10	\$24.00
Cost Estimate	2	8.5"x11"	4	\$0.10	\$0.80
Estimate of Time	6	8.5"x11"	2	\$0.10	\$1.20
Roadway Evaluation Vehicles	6			\$48.00	<u>\$288.00</u>
				Pre-Final Total	\$389.00
<u>FINAL PLANS (100%)</u>					
Plan Sets (LCDOT)	1	Full Mylar	50	\$3.00	\$150.00
Plan Sets (2-LCDOT, 2 Utilities, 2 Local Agencies)	6	Quarter	50	\$0.25	\$75.00
Special Provisions (unbound)	6	8.5"x11"	40	\$0.10	\$24.00
Cost Estimate	6	8.5"x11"	3	\$0.10	\$1.80
Estimate of Time	6	8.5"x11"	2	\$0.10	<u>\$1.20</u>
				Final Total	\$252.00
<u>MEETINGS</u>					
Vehicles	8			\$48.00	<u>\$384.00</u>
				Meetings Total	\$384.00

Grand Total \$1,217.00

BLA Manhours
PROJECT: Monaville Road - Section No. 12-00999-40-RS
BLA Project No. 877-012

<u>ITEM</u>	<u># OF SHEETS</u>	<u>MH PER SHEET</u>	<u>TOTAL MH'S</u>
Survey			
Horizontal Control Check (1.2 miles)			54
Roadway Evaluation			78
Title Sheet	1	6	6
Typical Section (5 Existing, 5 Proposed)	6	6	36
Notes/ Standards	1	8	8
Summary of Quantities	2	8	16
Schedule of Quantities	10	6	60
Base Sheets	6	8	48
Maintenance of Traffic	5	4	20
Removal and Adjustment Sheets	6	6	36
Plan/Pavement Marking/Erosion Control Sheets	6	8	48
Special Provisions			16
Estimate of Time			8
Estimate of Cost (PreFinal and Final)			64
Consultant Details	3	8	24
IDOT and LCDOT Details (2 details/sheet)	19	1	19
Meeting/Field Checks/ Coordination			
LCDOT Office (1 kickoff, 1 Prefinal, 1 Final, 1 Precon) (2 staff/meeting)			24

Plan in Hand Field Review		12
Utility/ (manhole adjustments, etc.)		16
QA/QC		48
Phase III Coordination		<u>44</u>
Sub-Total	65	685
Administration/ Management		<u>34</u>
Total	65	719

BLA Direct Costs
PROJECT: Monaville Road
BLA Project: 877-012

	<u># of Sets</u>	<u>Size</u>	<u># of Sheets</u>	<u>Rate per Sheet</u>	<u>Total</u>
<u>SURVEY DOCUMENTS</u>					
Vehicles	2			\$48.00	<u>\$96.00</u>
				Survey Total	\$96.00
<u>PRE-FINAL PLANS (90%)</u>					
Plan Sets (2 LCDOT, 2 Utilities, 2 Local Agencies)	6	Quarter	45	\$0.25	\$67.50
Special Provisions (unbound) (2 LCDOT)	6	8.5"x11"	40	\$0.10	\$24.00
Cost Estimate	2	8.5"x11"	4	\$0.10	\$0.80
Estimate of Time	6	8.5"x11"	2	\$0.10	\$1.20
Roadway Evaluation Vehicles	6			\$48.00	<u>\$288.00</u>
				Pre-Final Total	\$381.50
<u>FINAL PLANS (100%)</u>					
Plan Sets (LCDOT)	1	Full Mylar	45	\$3.00	\$135.00
Plan Sets (2-LCDOT, 2 Utilities, 2 Local Agencies)	6	Quarter	45	\$0.25	\$67.50
Special Provisions (unbound)	6	8.5"x11"	40	\$0.10	\$24.00
Cost Estimate	6	8.5"x11"	3	\$0.10	\$1.80
Estimate of Time	6	8.5"x11"	2	\$0.10	<u>\$1.20</u>
				Final Total	\$229.50
<u>MEETINGS</u>					
Vehicles	5			\$48.00	<u>\$240.00</u>
				Meetings Total	\$240.00
				Grand Total	\$947.00