


Municipality	<b>L O C A L  A G E N C Y</b>	 <b>Illinois Department of Transportation</b>	<b>C O N S U L T A N T</b>	Name Alfred Benesch
Township				Address 205 No. Michigan Suite 2400
County Lake County – Division of Transportation		Preliminary Engineering Services Agreement For Non-Motor Fuel Tax Funds		City Chicago
Section 08-00080-56-BR				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. Non-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 Proposed Grade Separation Rollins Road and the Canadian National Railway

Route Rollins Length \_\_\_\_\_ Mi. 2986.00 FT (Structure No. \_\_\_\_\_ )

Termini Rollins - Mallard Creek Drive to Round Lake Commons; IL 83 - Hook to Brighton; Hainesville - Rollins to Clarendo

Description:  
 Gade separation of the Canadian National Railway over Rollins Road. This also includes the realignment of Hainesville Road and the relocation of the Round Lake Commons signalized intersection.

### 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
  - 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 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	
Under \$50,000		(see note)
		%
		%
		%

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 \_\_\_\_\_ 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 \$2974565.00**

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 \_\_\_ 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 \_\_\_ 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.

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**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's 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 triplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

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

ATTEST:

State of Illinois, acting by and through its

By \_\_\_\_\_

County Board

Lake County Clerk

By \_\_\_\_\_

(Seal)

Title Chairman of the County Board

RECOMMENDED FOR EXECUTION

Martin G. Buehler, P.E.  
Director of Transportation/County Engineer  
Lake County

Executed by the ENGINEER:

Alfred Benesch & Co.

Engineering Firm

205 N. Michigan Suite 2400

Street Address

Chicago, IL 60601

City, State

ATTEST:

By [Signature]

By [Signature]

Title Vice President

Title President

Note: Three (3) Original Executed Contracts -- (2) LCDOT; (1) Consultant

ID	WBS	Task Name	Duration	Start	Finish	2012	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2013	Jan	Feb	Mar	Apr	May	
1	1	Value Engineering	60 days	Fr 4/11	Thu 6/23/12																				
2	2	Project Coordination	522 days	Fr 4/11	Thu 6/23/12																				
3	3	Cost Management	522 days	Fr 4/11	Thu 6/23/12																				
4	4	Construction Management	522 days	Fr 4/11	Thu 6/23/12																				
5	5	ROADWAY PLANS	300 days	Fr 4/11	Thu 6/23/12																				
6	6	Pre-Final	62 days	Fr 4/11	Thu 6/23/12																				
7	7	Final	160 days	Fr 4/11	Thu 6/23/12																				
8	8	Final	62 days	Fr 4/11	Thu 6/23/12																				
9	9	Final	300 days	Fr 4/11	Thu 6/23/12																				
10	10	Final	60 days	Fr 4/11	Thu 6/23/12																				
11	11	Final	160 days	Fr 4/11	Thu 6/23/12																				
12	12	Final	60 days	Fr 4/11	Thu 6/23/12																				
13	13	Final	300 days	Fr 4/11	Thu 6/23/12																				
14	14	Final	160 days	Fr 4/11	Thu 6/23/12																				
15	15	Final	60 days	Fr 4/11	Thu 6/23/12																				
16	16	Final	300 days	Fr 4/11	Thu 6/23/12																				
17	17	Final	60 days	Fr 4/11	Thu 6/23/12																				
18	18	Final	160 days	Fr 4/11	Thu 6/23/12																				
19	19	Final	60 days	Fr 4/11	Thu 6/23/12																				
20	20	Final	300 days	Fr 4/11	Thu 6/23/12																				
21	21	Final	60 days	Fr 4/11	Thu 6/23/12																				
22	22	Final	160 days	Fr 4/11	Thu 6/23/12																				
23	23	Final	60 days	Fr 4/11	Thu 6/23/12																				
24	24	Final	300 days	Fr 4/11	Thu 6/23/12																				
25	25	Final	60 days	Fr 4/11	Thu 6/23/12																				
26	26	Final	160 days	Fr 4/11	Thu 6/23/12																				
27	27	Final	60 days	Fr 4/11	Thu 6/23/12																				
28	28	Final	300 days	Fr 4/11	Thu 6/23/12																				
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38	38	Final	160 days	Fr 4/11	Thu 6/23/12																				
39	39	Final	60 days	Fr 4/11	Thu 6/23/12																				
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65	65	Final	60 days	Fr 4/11	Thu 6/23/12																				
66	66	Final	160 days	Fr 4/11	Thu 6/23/12																				
67	67	Final	60 days	Fr 4/11	Thu 6/23/12																				
68	68	Final	300 days	Fr 4/11	Thu 6/23/12																				
69	69	Final	60 days	Fr 4/11	Thu 6/23/12																				
70	70	Final	160 days	Fr 4/11	Thu 6/23/12																				
71	71	Final	60 days	Fr 4/11	Thu 6/23/12																				

Project Name Task Split Progress Milestone Summary Project Summary External Tasks External Milestone Deadline

2012 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2013 Jan Feb Mar Apr May

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# Phase II Engineering Cost Proposal for Proposed Grade Separation Rollins Road and the Canadian National Railway LCDOT Section 08-00080-56-BR

*February 22, 2011*



Prepared for:  
Lake County Division of Transportation

**benesch**

Prepared by:  
Alfred Benesch & Company

**Phase II Engineering Cost Proposal for  
Proposed Grade Separation  
Rollins Road and the Canadian National Railway  
LCDOT Section 08-00080-56-BR**

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- II. Estimated Hours and Costs  
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Mathewson Right-of-Way Company

## DETAILED SCOPE OF WORK

### Phase II Engineering for Grade Separation of the Canadian National Railway over Rollins Road

Lake County  
Section: 08-00080-56-BR

The scope of work for this project includes Phase II engineering services for the design of the grade separation of the Canadian National Railway over Rollins Road. This also includes the realignment of Hainesville Road and the relocation of the Round Lake Commons signalized intersection according to the details found in the approved Design Report. The following tasks are included to complete this work.

#### 1.0 Value Engineering

This task involves a project level Value Engineering Study of the approved Phase I plan design. The study will identify the costs of the project by element and will look for value mismatches and opportunities. Due to the complexity of the staged implementation for the project, particular attention will be given to the costs associated with the staging of the project. The product of this study will be a value engineering report.

#### 2.0 Project Coordination

This task includes coordination with various entities to complete the project. This includes coordination with Lake County DOT, IDOT, CN Railroad, Greater Round Lake Beach Park District, Village of Round Lake Beach, Lake County SMC, Com Ed and the Illinois Commerce Commission (ICC) for the temporary at grade rail crossing modification.

#### 3.0 Cost Management

This task will include the preparation of cost estimates for the improvements at the preliminary, pre-final and final phases of the project. These will be developed utilizing a compilation of recent bid prices for typical items of similar quantities, and customized estimates for unique items prepared by analyzing the labor and materials required to complete the work and then applying appropriate industry costs.

#### 4.0 Civil Plans

All plans for the subject project will be prepared using English units. Plans will be prepared in accordance with chapters 63-66 of the Bureau of Design and Environment Manual. The decision with regards to if the project will be let by IDOT (Federal Funds) or by LCDOT (Local Funds) has not been determined. A line item has been added to switch from federal to local format if necessary. The tasks comprising the scope of work are detailed below

##### 4.1 Roadway Plans

This portion of the Phase II task will include the extensive task of preparation of roadway plans. The following process will be utilized to complete this task:

##### 1. Cover Sheet

The standard IDOT Title Sheet will be utilized.

##### 2. Notes/Index/Standards



- A list of commitments from Phase I will be included.
- IDOT and LCDOT general notes will be utilized as applicable.
- An index of sheets will be included
- A list of current IDOT and LCDOT standards pertinent to the subject project will be included in the plans.

### **3. Summary of Quantities**

- Hours for preparing the Summary of Quantity sheets will consist of formatting the summary of quantity tables and inputting the required information. Appropriate funding columns shall be shown on the Summary of Quantity sheets and quantities shall be calculated accordingly.
- Hours for calculating the quantities will be included in the hours for the preparation of the respective plan sheets on which the items appear.
- Benesch will coordinate with IDOT to obtain the proper construction type fund coding.

### **4. Schedules of Quantities**

- Items which are repeated on multiple pages will be shown in a tabular format in the Schedule of Quantities.
- Hours for preparing Schedule of Quantity sheets will consist of formatting the schedules and inputting the required information.
- Hours for calculating the quantities will be included in the hours for the preparation of the respective plan sheets on which the items appear.
- A bituminous mixture chart and QC/QA schedule for bituminous materials will be included with the Schedules of Quantities.

### **5. Typical Sections**

- A legend will be provided on all sheets. Pay items will be called out exactly as they appear on the Summary of Quantity sheets.
- The typical sections will be proportioned in such a manner that all information will be adequately conveyed.
- Pavement design information will be provided on all sheets.
- Pavement design will be prepared and submitted to the appropriate agency for approval
- Separate existing and proposed typical sections will be prepared to satisfy IDOT requirements in the event federal funding is utilized.
- Existing Typical Sections will cover the entire length of the proposed improvement and will be determined based on the various pavement structures.
- Removal items will be cross hatched on the existing typical sections.
- Proposed Typical Sections (as presented in plan sheets) will cover the entire length of the proposed improvement for the construction and will be provided based on the following conditions: superelevation, where the roadway transitions from a curbed section to a non-curbed section and vice versa, changes to the pavement structure, changes to pavement width, cross section changes and side slope variations.
- Notes will be utilized where feasible to describe special cases and therefore limit the amount of typical sections required.

## 6. Alignment and Ties

- A scale of 1"=250 will be utilized in order to fit the entire project on one sheet.
- Schematic drawings for all of the reference ties will be shown together on a separate sheet.
- Curve data and the survey marker schedule will be shown together on a separate sheet.

## 7. Plan and Profile Sheets

The plans will be assembled under the following general assumptions:

- Two window view: existing plan/proposed plan, existing profile/proposed profile.
- Vertical and horizontal curve data, including superelevation rates and transitions, will be shown on the plans.
- Horizontal scale: 1"=20', Vertical scale: 1"=10' (with 1/10 grid)
- Utility lines will not be shown.
- Benchmarks will be depicted and detailed on the plan sheets.
- Items which are repeated on multiple pages will be shown in a tabular format in the Schedule of Quantities.
- Roadway removal items (including tree removal) will be shown on the Removal sheets.

Hours to prepare the plan and profile sheets will also include the following:

- Quantity take offs.
- Clear zone and barrier warrant analyses.

## 8. Intersection Details/Elevations/Geometrics

- 1"=20' Scale

## 9. Removal Plans

- These will be prepared as separate sheets at 1"=20' Scale

## 10. Cross Sections

- Horizontal scale: 1"=10', Vertical scale: 1"=5' (with 1/10 grid)
- Cross Sections will be provided at 50' along the length of the project, including all driveways and side roads as necessary.
- Cross Sections will be provided at every culvert crossing.
- Existing and proposed right of way will be shown.
- Profile grade line, edge of pavement and ditch elevations will be depicted.
- Cut and fill areas will be labeled on each cross section per stage of construction.
- Locations of unsuitable materials to be removed will be indicated.
- Temporary widening and temporary cut and fill areas will be shown.
- The proposed drainage system and existing utility lines will be shown and labeled.
- Cross Sections will show the grading required for the multi use path.

- Earth excavation and embankment must be calculated and paid for in accordance with the new methods outlined in the IDOT Standard Specifications. A 15% shrinkage factor is utilized in District One.

Hours to prepare Cross Sections will also include earthwork quantity take offs.

#### 11. Special Provisions

- The Standard Specifications for Road and Bridge Construction in Illinois, IDOT Recurring Special Provisions and IDOT District Ones Special Provisions will form the basis of the Special Provisions to be prepared for the project.
- The County will supply Benesch with any special provisions related to landscaping, erosion control, traffic signals, etc. Specific to Lake County items as required.
- Benesch will prepare additional special provisions as necessary.

#### 4.2 Drainage and Utility Plans

This portion of the Phase II task will include the task of preparation of drainage and utility plans. The following process will be utilized to complete this task:

##### General Assumptions:

- The Plan and Profile base sheets will be utilized as the basis of the drainage sheets.
- Drainage and Utility sheets will depict and annotate drainage removal/adjustment items and the proposed drainage system in the existing and proposed plan views respectively. In profile, the proposed drainage system will be depicted and annotated.
- Utility lines and structures will be shown.
- Drainage structure and storm sewer information will be shown on the same sheet.

Hours to prepare the Drainage and Utility sheets will also include quantity take-offs.

##### Drainage Calculations

The IDOT Drainage Manual and Lake County Watershed Development Ordinance will be consulted to determine approved drainage software packages and methods for hydraulic calculations.

The following drainage calculations will be required to design and analyze the proposed drainage system:

- Inlet Spacing
- Storm Sewer Design
- Ditch Analysis
- Culvert Analysis
- Detention Calculations

##### Water Main Relocation:

The relocation of the water main on the north side of Rollins Road, relocation of the water main on the east side of IL Rte. 83 and the elimination of the water main on the west side of Hainesville Road are required due to the lowering of Rollins Road.

This scope of work includes the engineering plans required to maintain the existing services during construction and the proposed water main modifications required as a result of lowering the Rollins Road profile. Also included with this task is the effort needed to coordinate and obtain the necessary IEPA water main permit for the project.

#### **4.3 Erosion Control and Sediment Plans**

Erosion control and sediment plans will be prepared in accordance with the following:

- 1"=50' Scale
- The Maintenance of Traffic base sheets will be utilized as the basis of the Erosion Control plans since erosion control must be shown for each major construction stage.
- Text describing the erosion control measures to be implemented at each stage of construction will also be included.
- During the development of the staging for the project, consideration will be given to IEPA requirements regarding disturbed area and discharge testing requirements during construction. Options will be presented to the county for review and decisions will be documented.
- Hours to prepare the erosion control plans will also include quantity take offs.

This task will also include the preparation of a Stormwater Pollution and Prevention Plan (SWPP).

#### **4.4 Staging and Traffic Control**

- Measures that are required to maintain drainage during construction will be evaluated.
- Access to active properties will be maintained during construction.
- MOT will be demonstrated at a 1"=20' scale
- A separate sheet for staging notes, general notes and the legend will be included and placed on all sheets as applicable.
- Temporary roadway plan and profile sheets will be detailed within the Maintenance of Traffic plans.
- Construction guide signing will be depicted on the Maintenance of Traffic plans in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).
- Temporary lighting is not included in this scope of work.
- Benesch will develop special provisions for MOT as required.
- Benesch will be responsible for obtaining District One standard details pertaining to Maintenance of Traffic and incorporating the standards into the plan set.

#### **Estimate of Time**

BD 220 will be utilized to prepare the estimate of construction time.

#### **4.5 Pavement Marking and Signing Plans**

- Scale 1" = 50'

- Pavement marking shall be detailed and called out on the plans.
- Signage will also be detailed.

The quantities for the items under this task will be tallied and added to the Schedule of Quantities.

#### **4.6 Traffic Signal, Intersection Lighting and ITS Plans**

Benesch will develop temporary and permanent traffic signal plans for the following intersections:

- Mallard Creek and Rollins Road
- Hainesville Road and Rollins Road
- IL Rte 83 and Rollins Road (Including preemption plan for temporary intersection)
- Round Lake Commons Entrance and Rollins Road
- Hook Drive and IL Rte. 83

Benesch will also develop temporary and permanent interconnect plans to maintain and reestablish interconnect along Rollins Road and IL Rte. 83. Benesch will also add an interconnect between the intersection of Hainesville and Rollins Road to the intersection of Hainesville and Shorewood.

Benesch will provide plans for intersection lighting at the following locations:

- Intersection of Hainesville and Rollins Road
- Intersection of Round Lake Commons Entrance and Rollins Road
- Mallard Creek Parking Lot Modifications
- Round Lake Commons North Parking Lot Modifications
- Round Lake Commons South Parking Lot Modifications
- CN Underpass Lighting

This work will include calculations of lighting levels to determine the number and type of fixtures to be utilized.

Benesch will provide plans for the relocation of the HARS tower and associated communication cabinets and fiber optic connections.

#### **4.7 Railroad Track Plans**

This scope of work includes the preparation of railroad track plans for approximately 2200 feet of track on a new alignment. Railroad Coordination covered under task 2.0 Project Coordination.

Details of this work include the following:

- Schedules
- Alignment and Ties
- Typical Sections
- Track Plan and Profiles
- Track Staging Plans
- Earthwork Cross Sections

- Temporary Crossing Detail
- Railroad Standard Details
- Special Provisions

This scope of work does not include the following items:

- Hook Drive existing at grade crossing modifications.
- Railroad communication modifications.
- Railroad signal modifications.

## **5.0 Landscaping Plans**

- 1"=50' Scale.
- Landscaping slated for removal during construction will be shown for restoration in these sheets.

## **6.0 Structural Plans**

The scope for Structural Design is divided into general tasks. Quantity calculation, task specific value engineering is included in each element. Specific sheets for each task are detailed in Exhibit A. Below is a list of the following general tasks for Structural Design:

### **6.1 CN Bridge Over Rollins Road**

This scope of work includes the preparation of railroad bridge plans and specifications, as well as shop drawing reviews, for a single track 150' span over Rollins Road that meets CN Standards and AREMA Standards. The bridge will be a steel thru-girder with a ballast deck. The bridge will be stage constructed. The plans and specifications will include substructure for a double track bridge and superstructure for only one track. It is assumed that the bridge substructure will be supported on piles. Details of this work include the following:

- Value Engineering
- Bridge Plans (Abutments, Girders, Deck & Staging Elements)
- Specifications

This scope of work does not include the following items:

- Superstructure for a second track.

### **6.2 CN Retaining Walls**

This scope of work includes the plans, specifications and shop drawing reviews for four retaining walls extending from the abutments. During the Value Engineering Session for the bridge, the most cost effective wall designs will be evaluated. The results will be presented to LCDOT and CN for their review and comment prior to proceeding with the development of the plans and specifications. For estimating purposes, it is assumed that these walls will be cast-in-place cantilevered "L" or "T" type supported on piles.

### **6.3 Com Ed Tower Walls**

This scope of work includes the plans, specifications and shop drawing reviews for two walls to protect existing Com Ed Towers on the west side of Rt. 83, including temporary measures required during construction. It is assumed that Com Ed will supply Benesch with dynamic and static loadings at each tower. Benesch will then

perform a dynamic analysis of the Com Ed towers and evaluate their reaction with proposed retaining wall. The results will be evaluated in a Value Engineering format and recommendations presented for LCDOT and Com Ed's concurrence.

#### **6.4 IL Rte 83 Walls**

This scope of work includes the plans, specifications and shop drawing reviews for Wall G at the southwest corner of Rt. 83 and Hook Road, including the temporary excavation support systems which may be required during construction. It also includes plans, specifications and shop drawing reviews for Wall H at the southeast corner of Rt. 83 and Rollins Road, including the temporary excavation support systems which may be required during construction.

#### **6.5 Temporary Structures**

This scope includes the plans, specifications and shop drawing reviews for the following items:

- Temporary roadway bridge over Rollins Road as shown in Exhibit A
- Temporary sheeting walls for CN Railroad Bridge Construction as shown in Exhibit A
- Temporary sheeting walls for roadway construction as shown in Exhibit A (Rollins Rd. & Rt. 83)

This scope of work does not include the following items:

- The temporary bridge superstructure will not be designed. A performance specification for the bridge superstructure design will be used.

#### **7.0 Public Involvement:**

This scope of work involves continuing to communicate with the stakeholders who have supported the project through the use of the project website and newsletters(2).

In addition this task involves the continued involvement of the Area Business Task Force throughout the Phase II design process. The following meetings are anticipated:

Aesthetic Coordination Meeting No. 1 – A working session to investigate the range of possible aesthetic and landscaping treatments. The session will be used to evaluate the groups preferences and willingness to support/maintain various elements which may be incorporated into the project.

Aesthetic Coordination Meeting No. 2 – Presentation of alternatives including cost and maintenance cost participation considerations. The goal of this meeting will be to establish the landscaping and aesthetics to be incorporated into the project.

Plan Review Meetings – It is anticipated that the project team will meet with the Area Business Task Force at each of the key project milestones (Preliminary, Pre-Final and Final) to communicate the development of the plan details. Particular points of interest to be discussed at these meetings include impacts to signage, parking lot modifications, access during construction.

Construction Marketing Plan – A plan template identifying marketing opportunities for local businesses will be developed. The plan will identify opportunities for advertising – Locations along the construction fencing and walls can be made available to allow for temporary signage/advertising to provide customer contact and messages adjacent to the travelling public, serving as reminder advertising that businesses are open during this community upgrade

#### **8.0 Submittals (plans, specifications and estimates):**

The scope of work consists of efforts to assemble and package the plans, specifications and estimate of costs for the defined submittals to the County, utility companies, railroads and to IDOT. The following submittals are anticipated:

- Preliminary (60%)
- Pre-Final (90%)
- Final (100%)

This scope of work covers the final submittal requirements for either an IDOT (Federal Fund) letting or Lake County (Local Fund Letting) in both hard and electronic formats. The electronic bid package will be prepared in accordance with the LCDOT guideline.

#### **9.0 Quality Assurance/Quality Control**

The development of a Quality Management Plan (QMP) is included with the proposed administration scope. Also included is the effort to implement the plan during the Phase II schedule. Quality Assurance at Benesch involves a commitment to provide the County with a project that satisfies your needs. Included in this broad goal of satisfaction are:

- timely coordination with LCDOT;
- development of cost-effective solutions;
- documentation of key decisions; and
- adherence to schedule.

Benesch's Quality Management Plan (QMP) procedures are compatible with the County's QA/QC program. This process is initiated with the development of the work plan that is used as the basis for the QMP. The QMP will define the procedures used to control and insure the quality of the preliminary engineering. The draft QMP will be submitted after notice to proceed and the Final QMP incorporating comments by the County; will be submitted within two weeks of receipt of comments. The QMP will address the following:

- management responsibility;
- design standards and documents;
- document control;
- process control;
- review of preliminary engineering; and quality records; and
- audit procedures.

A key element to the successful implementation of the QMP is the active preparation of the Quality Management Team (QMT). The QMT is composed of senior members of the project team's staff who are not directly responsible for production of the project. The QMT will meet with the project manager and the project design team at an initial start-up meeting,



during which the key technical issues are discussed and the production schedule is established.

Throughout the duration of this project, the lead member of the QMT will meet with the project manager monthly to review:

- the key decisions made since the last meeting;
- project staffing issues;
- the schedule of the work; and
- any changes in the scope of work that impact on previous technical decisions.

Through this active participation, the QMT will assure that the QMP is followed.

The third major function of the QMT is to perform an independent review of all plans prior to submittal. The purpose of this review is to look for inconsistencies in the information presented and to spot check design details for constructability problems.

#### **10.0 Project Administration**

Administration consists of the following project management responsibilities to ensure a quality product on schedule and within budget:

- MS Project Plan including baseline and critical path shown,
- invoicing (Progress Report BDE 430)
- staffing resource management
- internal project team meetings
- preparation of the Project Management Plan which includes the Quality Management Plan
- preparation and distribution of correspondence, meeting minutes, records of conversation and all other project documentation necessary to track and document the project decisions
- coordination with the Challenge Bond Program Manager including monthly status meetings.

Project Management will be performed within the communication channels established by the Challenge Bond Program Organization Chart.

Benesch will prepare progress reports and invoices on a four-week cycle. These progress reports and invoices will be issued using IDOT BDE 430 form. The percent complete shown on the form shall be in agreement with MS Project percent complete reported on a monthly basis.

Benesch will prepare the design project schedule in MS Project format, including a breakdown of the major tasks depicting the project's key milestones and deliverables for Phase II. The schedule will be updated monthly and at a minimum, will include:

- milestones of key decisions
- submittals of project documents for County review and IDOT review
- receipt of review comments
- submittals of documents for permit review
- progress meetings

- agency review meetings

## **11.0 Survey**

This work will be performed in accordance with LCDOT survey procedures. The scope of this work specifically includes the following.

- Pick-Up additional topography for interconnect to the Hainesville/Shorewood Signal. Scope of work includes pick up of topographic feature from Centerline of Roadway to East Right-of-Way line.
- Survey of Com Ed Transmission Lines to determine dynamic envelope of lines. This survey will locate the transmission lines in 3 dimensions. The survey will be utilized to evaluate construction constraints associated with “piling/sheeting” work under the transmission lines. This work will also be incorporated into the construction documents for the contractors use during the bidding process.

## **12.0 Land Acquisition Support Services**

Cost of Land Acquisition Support Services will be included as a direct cost to the project.

**Estimated Hours and Costs  
(Alfred Benesch and Company)**

## EXHIBIT A

### Lake County Division of Transportation - Rollins Road Gateway Project Phase II Scope of Work & Estimate of Staff-hours

ITEM			TOTALS
1.0 VALUE ENGINEERING			324
2.0 PROJECT COORDINATION			1360
3.0 COST MANAGEMENT			168
4.0 CIVIL PLANS			11800
	4.1 ROADWAY PLANS	2768	
	4.2 DRAINAGE AND UTILITY PLANS	1952	
	4.3 EROSION CONTROL AND SEDIMENT PLANS	648	
	4.4 STAGING AND TRAFFIC CONTROL	3032	
	4.5 PAVEMENT MARKING AND SIGNING PLANS	412	
	4.6 TRAFFIC SIGNALS, LIGHTING AND ITS PLANS	1956	
	4.7 RAILROAD TRACK PLANS	1032	
5.0 LANDSCAPING PLANS			376
6.0 STRUCTURAL PLANS			7412
	6.1 CN BRIDGE OVER ROLLINS ROAD	2496	
	6.2 CN RETAINING WALLS	936	
	6.3 COM ED TOWER WALLS	990	
	6.4 IL RTE 83 WALLS	658	
	6.5 TEMPORARY STRUCTURES	2332	
7.0 PUBLIC INVOLVEMENT			436
8.0 SUBMITTALS			360
9.0 QUALITY ASSURANCE			540
10.0 ADMINISTRATION			716
11.0 SURVEY			120
			23612

# 1.0 VALUE ENGINEERING

Item	Engr	CAD	TOTAL
Value Engineering Workshop	200		200
Value Engineering Exhibits		40	40
Value Engineering Report	30	10	40
VE Review Meeting	8		8
Finalize Value Engineering Report	24	12	36

324

## 2.0 PROJECT COORDINATION

Item	No. of Meetings	Hours per meeting	TOTAL
<b>Coordination with LCDOT (2 hours per week)</b>			208
<b>Meetings with IDOT</b>	6	8	48
<b>Meetings with LCDOT/Program Manager</b>	36	8	288
<b>Meetings with Round Lake Beach</b>	4	8	32
<b>Meetings with Greater Round Lake Beach Park Dist.</b>	2	8	16
<b>Meetings with Lake County SMC</b>	4	8	32
<b>Meetings with Com Ed</b>	8	16	128
<b>Miscellaneous exhibits</b>			60
<b>ICC coordination - Temp at grade crossing</b>			
Coordination			120
Exhibits			80
<b>Coordination with RR</b>			
Meetings	18	16	288
Exhibits for CN			60

1360

### 3.0 COST MANAGEMENT

Item	TOTAL
Develop cost estimate for preliminary submittal	80
Update cost estimate for prefinal submittal	24
Update cost estimate for final submittal	24
Railroad Cost Participation Estimates	40

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## 4.1 ROADWAY PLANS

ITEMS AND TASKS	No. of Sheets	Hrs. per Sheet	Task or Sheet Hours Extended	ITEM TOTALS
<b>GENERAL PLAN SHEETS</b>				<b>52</b>
Cover Sheet	1	12	12	
Index of Sheets	1	16	16	
Standard Sheets	1	12	12	
General Notes & Commitments	1	12	12	
<b>SUMMARY AND SCHEDULE OF QUANTITIES (not quantity take-offs)</b>				<b>264</b>
Summary of Quantities	2	24	48	
Schedules	6	36	216	
<b>TYPICAL SECTIONS (Ex. and Proposed)*</b>				<b>148</b>
Rollins Road (4 sections)	2	24	48	
IL Rte 83 (4 Sections)	2	24	48	
Hainesville Road (2 Sections)	1	24	24	
Round Lake Commons	1	16	16	
Hook Drive	1	12	12	
* Hours include proposed pavement design				
<b>ALIGNMENT, TIES AND BENCHMARKS</b>	4	16	64	<b>64</b>
<b>PLAN &amp; PROFILE SHEETS</b>				<b>800</b>
Rollins Road	6	24	144	
IL Rte 83	7	24	168	
Hainesville Road	3	24	72	
Round Lake Commons	2	24	48	
Hook Drive	2	24	48	
Quantity Calculations			240	
Special Provisions			80	
<b>INTERSECTION DETAILS</b>				<b>128</b>
Claredon & Hainesville	1	16	16	
Rollins & Hainesville	1	24	24	
Rollins & IL Rte 83	1	40	40	
Rollins & Round Lake Commons	1	24	24	
IL Rte 83 & Hook Drive	1	24	24	
<b>REMOVAL PLANS</b>				<b>384</b>
Rollins Road	6	16	96	
IL Rte 83	7	16	112	
Hainesville Road	3	16	48	
Round Lake Commons	2	16	32	
Hook Drive	2	16	32	
Hainesville Residences	1	16	16	
Rollins & IL Rte 83 NE Quad	1	16	16	
Rollins & IL Rte 83 NW Quad	1	16	16	
Rollins & IL Rte 83 SE Quad	1	16	16	
<b>DETAILS - ROADWAY</b>				<b>48</b>
Various	3	16	48	
<b>CROSS SECTIONS</b>				<b>800</b>
Rollins Road	30	8	240	
IL Rte 83	40	8	320	
Hainesville Road	14	8	112	
Round Lake Commons	8	4	32	
Hook Drive	4	4	16	
Staged Earth Quantity Calculations & Earthwork	1		80	
<b>SPECIAL PROVISIONS</b>				<b>80</b>

2768

## 4.2 DRAINAGE AND UTILITY PLANS

ITEMS AND TASKS	No. of Sheets	Hrs per Sheet	Task or Sheet Hours Extended	ITEM TOTALS
<b>SCHEDULES</b>				<b>144</b>
(not quantity take-offs)				
Drainage Schedules	4	24	96	
Water Main Schedules	2	24	48	
<b>DRAINAGE PLAN &amp; PROFILE SHEETS</b>				<b>768</b>
Rollins Road	6	40	240	
IL Rte 83	7	40	280	
Hainesville Road	3	40	120	
Round Lake Commons	2	24	48	
Quantity Calculations			80	
<b>DRAINAGE REMOVAL PLANS</b>				<b>464</b>
Rollins Road	6	24	144	
IL Rte 83	7	24	168	
Hainesville Road	3	24	72	
Round Lake Commons	2	24	48	
Hook Drive	2	16	32	
<b>DETAILS - DRAINAGE</b>				<b>192</b>
Detention Basin Grading	1	40	40	
Rollins North Ditch Basins	2	20	40	
Gateway Park Grading	1	40	40	
Outlet Structures	1	40	40	
Miscellaneous	2	16	32	
<b>WATERMAIN PLAN &amp; PROFILE SHEETS</b>				<b>352</b>
Rollins Road	4	40	160	
IL Rte 83	2	40	80	
Hainesville Road	2	40	80	
<b>WATERMAIN DETAILS</b>				<b>32</b>
Miscellaneous	2	16	32	

1952

### 4.3 EROSION CONTROL AND SEDIMENT PLANS

ITEMS AND TASKS	No. of Sheets	Hrs per Sheet	Task or Sheet Hours Extended	ITEM TOTALS
<b>EROSION CONTROL</b>				<b>648</b>
Schedule & Notes	2	16	32	
Plan	67	8	536	
Details	5	8	40	
Quantity calculations			24	
Special Provisions			16	

648

## 4.4 STAGING AND TRAFFIC CONTROL

ITEMS AND TASKS	No. of Sheets	Hrs per Sheet	Task or Sheet Hours Extended	ITEM TOTALS
<b>Overall Sequencing Plans</b>	6	80	480	<b>480</b>
<b>M.O.T. Typical Sections</b>	12	16	192	<b>192</b>
<b>Stage 1 Plan Sheets</b>				<b>584</b>
Rollins Road	6	24	144	
IL Rte 83	2	24	48	
Temp Rollins Road P&P	3	24	72	
Temp Rollins Road Cross Sections	20	16	320	
<b>Stage 2A Plan Sheets</b>				<b>692</b>
Rollins Road	8	12	96	
IL Rte 83	9	12	108	
Hainesville Road	4	24	96	
Temp IL Rte 83 P&P	3	24	72	
Temp IL Rte 83 Cross Sections	20	16	320	
<b>Stage 2B Plan Sheets</b>				<b>108</b>
IL Rte 83	9	12	108	
<b>Stage 3 Plan Sheets</b>				<b>96</b>
Rollins Road	4	24	96	
<b>Stage 4 Plan Sheets</b>				<b>192</b>
Rollins Road	4	24	96	
Hainesville Road	4	24	96	
<b>Stage 5 Plan Sheets</b>				<b>408</b>
Rollins Road	8	24	192	
IL Rte 83	9	24	216	
<b>Detour plan</b>	2	40	80	<b>80</b>
<b>Estimate of Time Construciton Duration</b>				<b>80</b>
<b>M.O.T. Quantity Calculations</b>				<b>40</b>
<b>M.O.T. Specifications</b>				<b>80</b>

3032

## 4.5 PAVEMENT MARKING AND SIGNING PLANS

ITEMS AND TASKS	No. of Sheets	Hrs per Sheet	Task or Sheet Hours Extended	ITEM TOTALS
<b>PLAN</b>				<b>372</b>
Rollins Road	3	36	108	
IL Rte 83	3	36	108	
Hainesville Road	1	36	36	
Round Lake Commons	1	24	24	
Hook Drive	1	16	16	
RLC North Parking Lot	1	40	40	
RLC South Parking Lot	1	40	40	
Quantity Calculations				<b>40</b>

412

## 4.6 TRAFFIC SIGNAL, LIGHTING AND ITS PLANS

ITEMS AND TASKS	No. of Sheets	Hrs per Sheet	Task or Sheet Hours Extended	ITEM TOTALS
<b>Index of Sheets, General Electrical and Construction Notes</b>	1	24	24	24
<b>Proposed Signal Plan Sheets</b>				220
Mallard Creek & Rollins Road	1	40	40	
Hainesville Road & Rollins Road	1	40	40	
IL Rte 83 & Rollins Road	1	60	60	
Round Lake Commons & Rollins Road	1	40	40	
Hook Drive & Rollins Road	1	40	40	
<b>Proposed Wiring Diagrams</b>	5	24	120	120
<b>Existing and Removal</b>				80
Mallard Creek & Rollins Road	1	16	16	
Hainesville Road & Rollins Road	1	16	16	
IL Rte 83 & Rollins Road	1	16	16	
Round Lake Commons & Rollins Road	1	16	16	
Hook Drive & Rollins Road	1	16	16	
<b>Electrical Details</b>	4	12	48	48
<b>Temporary Signal Plan</b>				144
Mallard Creek & Rollins Road	1	24	24	
Hainesville Road & Rollins Road	1	24	24	
IL Rte 83 & Rollins Road	1	24	24	
Round Lake Commons & Rollins Road	1	24	24	
Hook Drive & Rollins Road	1	24	24	
Preemption Sequence of Operations	1	24	24	
<b>Temporary Wiring Plan</b>	5	24	120	120
<b>Temp Interconnect Plan</b>				160
Rollins Road (Mallard Creek to Round Lake Commons)	3	16	48	
IL Rte 83 (Hook to IL Rte 83)	3	16	48	
Hainesville Road (Rollins to Shorewood)	4	16	64	
<b>Permanent Interconnect Plan</b>				160
Rollins Road (Mallard Creek to Round Lake Commons)	3	16	48	
IL Rte 83 (Hook to IL Rte 83)	3	16	48	
Hainesville Road (Rollins to Shorewood)	4	16	64	
<b>Proposed Intersection Lighting Plan</b>				160
Hainesville Road & Rollins Road			80	
Round Lake Commons & Rollins Road			80	
<b>Proposed Parking Lot Lighting Modificaitons</b>				400
Mallard Creek	2	40	80	
Round Lake Commons North	4	40	160	
Round Lake Commons South	4	40	160	
<b>Proposed Lighting at CN Bridge</b>				120
Bridge Lighting	3	40	120	
<b>HARS Tower Relocation</b>	2	40	80	80
<b>Quantity Calculations and Electrical SOQ</b>				120

1956

## 4.7 RAILROAD TRACK PLANS

Items	No. of Drawings	Hours/Drawing	Total Hours
<b>Plan production</b>			
Schedules	2	24	48
Alignment and Ties	1	24	24
Typical Sections	2	24	48
Track Plan and Profile	4	40	160
Staging Plans	8	40	120
Cross Sections	22	24	528
Temporary Crossing Detail	1	40	40
Std. Details	2	12	24
Special Provisions			40

1032

## 5.0 LANDSCAPING PLANS

ITEMS AND TASKS	No. of Sheets	Hrs per Sheet	Task or Sheet Hours Extended	ITEM TOTALS
<b>LANDSCAPING PLANS</b>				<b>376</b>
Plan Sheets	11	24	264	
Detail Sheets	2	16	32	
Specs			40	
Quantity Calculations			40	

376



## 6.1 CN BRIDGE OVER ROLLINS ROAD

GENERAL				Item Total
ELEMENT SPECIFIC VE SESSION				60
QUANTITIES				60
SPECIAL PROVISIONS				40
COST ESTIMATE				24
<b>GENERAL TOTAL =</b>				<b>184</b>

PLAN DEVELOPMENT	No. of Sheets	Hrs per Sheet	Task or Sheet Hours Extended	Item Total
GENERAL PLAN AND ELEVATION	1	60	60	60
GENERAL NOTES & QUANTITIES	1	52	52	52
PROFILES	1	34	34	34
LOG OF BORINGS	8	4	32	32
SOUTH ABUTMENT PILE LAYOUT	1	52	52	52
SOUTH ABUTMENT FOOTING	1	52	52	52
SOUTH ABUTMENT STEM	1	52	52	52
SOUTH ABUTMENT BACKWALL	1	52	52	52
SOUTH ABUTMENT SECTIONS	1	52	52	52
SOUTH ABUTMENT DETAILS	1	52	52	52
NORTH ABUTMENT PILE LAYOUT	1	44	44	44
NORTH ABUTMENT FOOTING	1	44	44	44
NORTH ABUTMENT STEM	1	44	44	44
NORTH ABUTMENT BACKWALL	1	44	44	44
NORTH ABUTMENT SECTIONS	1	44	44	44
NORTH ABUTMENT DETAILS	1	44	44	44
DECK CROSS SECTION	1	50	50	50
FRAMING PLAN	1	65	65	65
INTERIOR GIRDER G1 DETAILS 1	1	56	56	56
EXTERIOR GIRDER G2 DETAILS 1	1	56	56	56
DESIGN DATA	1	65	65	65
INTERIOR GIRDER G1 DETAILS 2	1	56	56	56
EXTERIOR GIRDER G2 DETAILS 2	1	56	56	56
END FLOORBEAM	1	50	50	50
END FLOORBEAM JACKING DETAILS	1	50	50	50
UPPER FLOOR PLATE AT EXT. GIRDERS	1	50	50	50
UPPER FLOOR PLATE DETAILS	1	50	50	50
FLOOR PLATES	1	50	50	50
BALLAST STOP PLATE DETAILS	1	50	50	50
FLOOR PLATE DETAILS	1	50	50	50
DECK DETAILS	1	46	46	46
TRACTION BRACING DETAILS	1	46	46	46
WALKWAY DETAILS	2	48	96	96
HANDRAIL DETAILS	2	44	88	88
DRAINAGE DETAILS	1	44	44	44
DRAINAGE PLAN	1	44	44	44
ABUTMENT "DOUBLE" BEARING	1	54	54	54
ABUTMENT "SINGLE" BEARING	1	54	54	54
END FLOORBEAM BEARING	1	48	48	48
<b>SHEET TOTAL =</b>	<b>48</b>		<b>PLAN TOTAL =</b>	<b>2028</b>

SHOP DRAWING REVIEW				Item Total
RESPONSE TO RFI'S				40
REVIEW DESIGN CHANGES				40
BEARINGS				16
STRUCTURAL STEEL				60
DECK WATERPROOFING				8
DECK DRAINS				8
WALKWAYS				8
RAILINGS				8
CONCRETE REINFORCEMENT				24
CONCRETE MIXTURES				24
FOUNDATION SYSTEM				32
SUBSTRUCTURE DRAINAGE				16
<b>SHOP DRAWING REVIEW TOTAL =</b>				<b>284</b>

**TASK TOTAL = 2496**

## 6.2 CN RETAINING WALLS

PLAN DEVELOPMENT	No. of Sheets	Hrs per Sheet	Task or Sheet Hours Extended	Item Total
RETAINING WALLS GENERAL PLAN	1	48	48	48
RETAINING WALLS - GENERAL NOTES AND QUANTITIES	1	42	42	42
WALL A - GP&E	1	40	40	40
WALL A - FOOTING AND ELEVATIONS	1	40	40	40
WALL A - SECTIONS AND DETAILS	1	42	42	42
WALL B - GP&E	1	40	40	40
WALL B - FOOTING AND ELEVATIONS	3	40	120	120
WALL B - SECTIONS AND DETAILS	1	42	42	42
WALL C - GP&E	1	40	40	40
WALL C - FOOTING AND ELEVATIONS	1	40	40	40
WALL C - SECTIONS AND DETAILS	1	42	42	42
WALL D - GP&E	1	40	40	40
WALL D - FOOTING AND ELEVATIONS	1	40	40	40
WALL D - SECTIONS AND DETAILS	2	42	84	84
STANDARD RETAINING WALL DETAILS	1	34	34	34
RUSTICATION DETAILS	1	34	34	34
<b>SHEET TOTAL =</b>	<b>19</b>		<b>PLAN TOTAL =</b>	<b>768</b>

SHOP DRAWING REVIEW				Item Total
RESPONSE TO RFI'S				32
REVIEW DESIGN CHANGES				32
RAILINGS				8
CONCRETE REINFORCEMENT				24
CONCRETE MIXTURES				24
FOUNDATION SYSTEM				32
WALL DRAINAGE				16
<b>SHOP DRAWING REVIEW TOTAL =</b>				<b>168</b>

**TASK TOTAL = 936**

### 6.3 COM ED TOWER WALLS

GENERAL				Item Total
ELEMENT SPECIFIC VE SESSION				60
QUANTITIES				24
SPECIAL PROVISIONS				30
COST ESTIMATE				16
TOWER DYNAMIC ANALYSIS				240
<b>GENERAL TOTAL =</b>				<b>370</b>

PLAN DEVELOPMENT	No. of Sheets	Hrs per Sheet	Task or Sheet Hours Extended	Item Total
BORING LOGS	3	4	12	12
TEMPORARY EARTH RETENTION DETAILS	4	50	200	200
WALL E - GP&E	1	40	40	40
WALL E - FOOTING AND ELEVATIONS	2	36	72	72
WALL E - SECTIONS AND DETAILS	1	48	48	48
WALL F - GP&E	1	40	40	40
WALL F - FOOTING AND ELEVATIONS	2	36	72	72
WALL F - SECTIONS AND DETAILS	1	48	48	48
<b>SHEET TOTAL =</b>		<b>15</b>	<b>PLAN TOTAL =</b>	<b>532</b>

SHOP DRAWING REVIEW				Item Total
RESPONSE TO RFI'S				24
REVIEW DESIGN CHANGES				24
CONCRETE REINFORCEMENT				8
CONCRETE MIXTURES				8
FOUNDATION SYSTEM				16
WALL DRAINAGE				8
<b>SHOP DRAWING REVIEW TOTAL =</b>				<b>88</b>

**TASK TOTAL = 990**

## 6.4 IL-83 ROADWAY RETAINING WALL

GENERAL				Item Total
ELEMENT SPECIFIC VE SESSION				12
QUANTITIES				8
SPECIFICATIONS / SPECIAL PROVISIONS				12
COST ESTIMATE				8
<b>GENERAL TOTAL =</b>				<b>40</b>

PLAN DEVELOPMENT	No. of Sheets	Hrs per Sheet	Task or Sheet Hours Extended	Item Total
BORING LOGS	4	4	16	16
WALL G - GP&E	1	40	40	40
WALL G - FOOTING AND ELEVATIONS	3	34	102	102
WALL G - SECTIONS AND DETAILS	2	40	80	80
TEMPORARY EARTH RETENTION DETAILS	1	40	40	40
EXISTING WALL REMOVAL DETAILS	1	30	30	30
WALL H - GP&E	1	40	40	40
WALL H - FOOTING AND ELEVATIONS	3	34	102	102
WALL H - SECTIONS AND DETAILS	1	40	40	40
TEMPORARY EARTH RETENTION DETAILS	1	40	40	40
<b>SHEET TOTAL =</b>		<b>18</b>	<b>PLAN TOTAL = 530</b>	

SHOP DRAWING REVIEW				Item Total
RESPONSE TO RFI'S				24
REVIEW DESIGN CHANGES				24
CONCRETE REINFORCEMENT				8
CONCRETE MIXTURES				8
FOUNDATION SYSTEM				16
WALL DRAINAGE				8
<b>SHOP DRAWING REVIEW TOTAL =</b>				<b>88</b>

**TASK TOTAL = 658**

## 6.5 TEMPORARY STRUCTURES

GENERAL				Item Total
ELEMENT SPECIFIC VE SESSION				24
QUANTITIES				24
SPECIFICATIONS / SPECIAL PROVISIONS				30
COST ESTIMATE				24
<b>GENERAL TOTAL =</b>				<b>102</b>

PLAN DEVELOPMENT	No. of Sheets	Hrs per Sheet	Task or Sheet Hours Extended	Item Total
TEMP. BRIDGE GP&E	1	45	45	45
PILE LAYOUT PLAN	1	40	40	40
ABUTMENT PLAN	1	40	40	40
SUPERSTRUCTURE	2	14	28	28
NE WINGWALL	1	40	40	40
SE WINGWALL	1	40	40	40
WINGWALL DETAILS	1	45	45	45
BORING LOGS	4	4	16	16
TEMP. RR EARTH RET. SYSTEM - STAGE 1	4	65	260	260
TEMP. RR EARTH RET. SYSTEM - STAGE 2A	4	65	260	260
TEMP. RR EARTH RET. SYSTEM - STAGE 2B	4	40	160	160
TEMP. RR EARTH RET. SYSTEM - STAGE 3	4	65	260	260
TEMP. RR EARTH RET. SYSTEM - STAGE 4	1	40	40	40
CONSTRUCTION STAGING - SHEET PILING DETAILS	1	30	30	30
CONSTRUCTION STAGING - TIE ROD DETAILS	1	30	30	30
CONSTRUCTION STAGING - GROUND ANCHOR NOTES	1	30	30	30
TEMP. RDWY EARTH RET. SYSTEM - STAGE 2A	3	40	120	120
TEMP. RDWY EARTH RET. SYSTEM - STAGE 2B	7	44	308	308
TEMP. RDWY EARTH RET. SYSTEM - STAGE 3	2	40	80	80
TEMP. RDWY EARTH RET. SYSTEM - STAGE 5	2	40	80	80
CONSTRUCTION STAGING - SHEET PILING DETAILS	1	30	30	30
CONSTRUCTION STAGING - TIE ROD DETAILS	1	30	30	30
CONSTRUCTION STAGING - GROUND ANCHOR NOTES	1	30	30	30
<b>SHEET TOTAL =</b>	<b>49</b>		<b>PLAN TOTAL =</b>	<b>2042</b>

SHOP DRAWING REVIEW				Item Total
RESPONSE TO RFI'S				40
REVIEW DESIGN CHANGES				60
STEEL SHEET PILING				32
ANCHORS / TIE RODS				32
ANCHORAGE SYSTEMS				24
<b>SHOP DRAWING REVIEW TOTAL =</b>				<b>188</b>

**TASK TOTAL = 2332**

## 7.0 PUBLIC INVOLVEMENT

ITEMS	Images Totals	Benesch Totals
Project Website Maintenance and Updates (8 hrs/month x 24 months)		192
Area Business Task Force		
Aesthetic Coordination Meetings (2)	80	40
Preliminary Review Meeting	40	16
Pre-Final Review Meeting	40	16
Final Reveiw Meeting	40	16
Newsletters (2)	80	16
Construction Marketing Plan	20	20
Visualization Techniques		
5 - 3D Renderings @ 16 hrs each		80
10 - 2D Exhibits @ 4 hrs each		40
<b>TOTAL</b>	<b>300</b>	<b>436</b>

# 8.0 SUBMITTALS

	60% Submittal	Pre-Final Submittal	Final Submittal	Bid Submittal	Total
Lake County	16	24	24	24	88
IDOT	16	24	24	24	88
CN	16	24	24	24	88
Lake Stormwater		24	24		48
Lake Soil		24	24		48
<b>Total</b>	<b>48</b>	<b>120</b>	<b>120</b>	<b>72</b>	<b>360</b>

## 9.0 QUALITY ASSURANCE

	Hours -Civil			Total	Hours -Structural			Total
	Preliminary Submittal	Pre-Final Submittal	Final Submittal		Preliminary Submittal	Pre-Final Submittal	Final Submittal	
Quality Management Plan				24				16
QA - CN Submittals	12	16	8	36	16	40	40	96
QA - Roadway	78	130	52	260	12	36	36	84
Field Checks		16		16		8		8
<b>SubTotal</b>				<b>336</b>				<b>204</b>
							<b>Total</b>	<b>540</b>



## 10.0 ADMINISTRATION

	Staff	Hours/ week	# of Weeks	Hours/ month	# of Months	Total
Project Start-up	1	24	1			24
Progress Reports (invoicing)	1			4	24	96
PMP (includes QMP)	1	24	1			24
Schedules/monitoring	1	0.5	104			52
internal project meetings (weekly)	4	1	104			416
Preparation and distribution of correspondence	1	1	104			104

716

## 11.0 SURVEY

Item	TOTAL
Hainesville Survey Extension to Shorewood	40
Com Ed Transmission Line Survey	80

**120**

# COST ESTIMATE OF CONSULTANT SERVICES

Sheet: 1 of 1

Project: Phase II Grade Separation of Rollins Road & CN Railroad

Section: 08-00080-56-BR Firm: ALFRED BENESCH & COMPANY

Date: February 22, 2011

County: Lake

Overhead Rate: 151.68

Complexity Factor: 0

Estimate Prepared By: State Firm X

Item	Number of Staff hours (A)	Estimated Cost In Dollars										Percent Of Grand Total (I)
		Adjusted Hourly Rate (A1)	Payroll (B)	Overhead Fringe Benefits (C)	Eligible Direct Costs (D)	Subtotal (E)	Profit (F)	Ineligible Direct Costs (D1)	Services By Others* (G)	Total (H)		
<b>PROJECT TASKS</b>												
1.0 Value Engineering	324	42.81	13,871	21,039	0	34,910	5,062	0		39,972		1.3
2.0 Project Coordination	1,360	38.03	51,718	78,446	0	130,164	18,874	2,988		152,026		5.1
3.0 Cost Management	168	37.64	6,324	9,592	0	15,916	2,308	0		18,223		0.6
4.0 Civil Plans	11,800	36.07	425,581	645,521	30,186	1,101,289	159,687	17,563		1,278,538		43.0
5.0 Landscaping Plans	376	36.31	13,682	20,708	0	34,360	4,982	0		39,343		1.3
6.0 Structural Plans	7,412	37.70	279,449	423,868	7,722	711,038	103,101	4,581		818,719		27.5
7.0 Public Involvement	436	37.42	16,316	24,748	0	41,064	5,954	135		47,153	45,242	3.1
8.0 Submittals	360	36.04	12,975	19,681	0	32,656	4,735	0		37,391		1.3
9.0 Quality Assurance	540	40.77	22,015	33,393	0	55,408	8,034	0		63,442		2.1
10.0 Administration	716	41.78	29,914	45,374	0	75,288	10,917	0		86,204		2.9
11.0 Survey	120	36.64	4,397	6,669	0	11,066	1,605	0		12,671		0.4
12.0 Land Acquisition Assistance								335,640		335,640		11.3
<b>Sub-totals</b>	<b>23,612</b>		<b>876,212</b>	<b>1,329,038</b>	<b>37,908</b>	<b>2,243,158</b>	<b>325,258</b>	<b>360,907</b>		<b>2,974,565</b>	<b>45,242</b>	<b>100.0</b>

\* See attached sheets for Cost Estimate of Sub-consultant Services

# AVERAGE HOURLY PROJECT RATES

Project: Phase II Grade Separation of Rollins Road & CN Railroad

Section: 08-00080-56-BR

County: Lake

Job No.: \_\_\_\_\_

Firm: ALFRED BENESCH & COMPANY

Date: February 22, 2011

Sheet: 1 of 3

PAYROLL CLASSIFICATION	AVERAGE HOURLY RATES* (2011)	1.0 Value Engineering			2.0 Project Coordination			3.0 Cost Management			4.0 Civil Plans		
		HOURS	% PART	WGTD RATE	HOURS	% PART	WGTD RATE	HOURS	% PART	WGTD RATE	HOURS	% PART	WGTD RATE
SR. PROJECT MANAGER	\$64.75	65	20.00	\$12.95	2	5.00	\$3.24	0	0.00	\$0.00	236	2.00	1.30
PROJECT MANAGER I	\$47.19	32	10.00	\$4.72	340	25.00	\$11.80	34	20.00	9.44	944	8.00	3.78
SR. PROJECT ENGINEER	\$43.90	32	10.00	\$4.39	136	10.00	\$4.39	17	10.00	4.39	1,180	10.00	4.39
PROJECT ENGINEER II	\$38.62	36	11.00	\$4.25	136	10.00	\$3.86	17	10.00	3.86	1,180	10.00	3.86
PROJECT ENGINEER I	\$33.87	0	0.00	\$0.00	136	10.00	\$3.39	84	50.00	16.94	1,180	10.00	3.39
SR. DESIGNER	\$34.95	65	20.00	\$6.99		0.00	\$0.00	0	0.00	0.00	1,770	15.00	5.24
DESIGNER II	\$30.67	0	0.00	\$0.00		10.00	\$3.07	0	0.00	0.00	2,360	20.00	6.13
SR. TECHNICAL SPECIALIST	\$35.85	62	19.00	\$6.81		0.00	\$0.00	0	0.00	0.00	0	0.00	0.00
SR. TECHNOLOGIST	\$35.85	0	0.00	\$0.00		10.00	\$3.59	0	0.00	0.00	1,770	15.00	5.38
TECHNOLOGIST SPECIALIST I	\$24.60	0		\$0.00		0.00	\$0.00	17	10.00	2.46	0	0.00	0.00
PROJECT ASSISTANT I	\$20.70	32	10.00	\$2.07	272	20.00	\$4.14	0	0.00	0.00	1,180	10.00	2.07
Sub-Totals		324	100.00	42.18	1,360	100.00	37.47	168	100.00	37.09	11,800	100.00	35.53
WGTD RATE WITH ESCALATION*	1.50%			\$42.81			\$38.03			\$37.64			\$36.07

# AVERAGE HOURLY PROJECT RATES

Project: Phase II Grade Separation of Rollins Road & CN Railroad

Section: 08-00080-56-BR

Firm: ALFRED BENESCH & COMPANY

County: Lake

Date: February 22, 2011

Job No.: \_\_\_\_\_

Sheet: 2 of 3

PAYROLL CLASSIFICATION	AVERAGE HOURLY RATES* (2011)	5.0 Landscaping Plans			6.0 Structural Plans			7.0 Public Involvement			8.0 Submittals		
		HOURS	% PART	WGTD RATE	HOURS	% PART	WGTD RATE	HOURS	% PART	WGTD RATE	HOURS	% PART	WGTD RATE
SR. PROJECT MANAGER	\$64.75	19	5.00	\$3.24	371	5.00	3,237.5	44	10.00	\$6.48	7	2.00	1.30
PROJECT MANAGER I	\$47.19	19	5.00	\$2.36	741	10.00	\$4.72	44	10.00	4.72	47	13.00	6.13
SR. PROJECT ENGINEER	\$43.90	0	0.00	\$0.00	741	10.00	\$4.39	44	10.00	4.39	0	0.00	0.00
PROJECT ENGINEER II	\$38.62	38	10.00	\$3.86	741	10.00	\$3.86	0	0.00	0.00	0	0.00	0.00
PROJECT ENGINEER I	\$33.87	38	10.00	\$3.39	741	10.00	\$3.39	0	0.00	0.00	0	0.00	0.00
SR. DESIGNER	\$34.95	56	15.00	\$5.24	1,112	15.00	\$5.24	44	10.00	3.50	144	40.00	13.98
DESIGNER II	\$30.67	38	10.00	\$3.07	741	10.00	\$3.07	44	10.00	3.07	36	10.00	3.07
SR. TECHNICAL SPECIALIST	\$35.85	38	10.00	\$3.59	741	10.00	\$3.59	44	10.00	3.59	0	0.00	0.00
SR. TECHNOLOGIST	\$35.85	94	25.00	\$8.96	741	10.00	\$3.59	65	15.00	5.38	90	25.00	8.96
TECHNOLOGIST SPECIALIST I	\$24.60	0	0.00	\$0.00	0	0.00	\$0.00	65	15.00	3.69	0	0.00	0.00
PROJECT ASSISTANT I	\$20.70	38	10.00	\$2.07	741	10.00	\$2.07	44	10.00	2.07	36	10.00	2.07
Sub-Totals		376	100.00	35.77	7,412	100.00	37.15	436	100.00	36.87	360	100.00	35.51
WGTD RATE WITH ESCALATION*	1.50%			\$36.31			\$37.70			\$37.42			\$36.04

# AVERAGE HOURLY PROJECT RATES

Project: Phase II Grade Separation of Rollins Road & CN Railroad

Section: 08-00080-56-BR

Firm: ALFRED BENESCH & COMPANY

County: Lake

Date: February 22, 2011

Job No.: \_\_\_\_\_

Sheet: 3 of 3

PAYROLL CLASSIFICATION	AVERAGE HOURLY RATES* (2011)	9.0 Quality Assurance			10.0 Administration			11.0 Survey			WGTD RATE	% PART	HOURS	WGTD RATE	% PART	HOURS	WGTD RATE	% PART	HOURS	WGTD RATE
		HOURS	% PART	WGTD RATE	HOURS	% PART	WGTD RATE	HOURS	% PART	WGTD RATE										
SR. PROJECT MANAGER	\$64.75	54	10.00	\$6.48	72	10.00	6.475	0	0.00	\$0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	
PROJECT MANAGER I	\$47.19	54	10.00	\$4.72	215	30.00	14.157	0	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	
SR. PROJECT ENGINEER	\$43.90	108	20.00	\$8.78	72	10.00	\$4.39	0	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	
PROJECT ENGINEER II	\$38.62	135	25.00	\$9.66	0	0.00	\$0.00	0	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	
PROJECT ENGINEER I	\$33.87	135	25.00	\$8.47	0	0.00	\$0.00	0	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	
SR. DESIGNER	\$34.95	0	0.00	\$0.00	215	30.00	\$10.49	0	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	
DESIGNER II	\$30.67	0	0.00	\$0.00	0	0.00	\$0.00	0	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	
SR. TECHNICAL SPECIALIST	\$35.85	0	0.00	\$0.00	0	0.00	\$0.00	0	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	
SR. TECHNOLOGIST	\$35.85	0	0.00	\$0.00	72	10.00	\$3.59	0	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	
TECHNOLOGIST SPECIALIST I	\$24.60	0	0.00	\$0.00	0	0.00	\$0.00	0	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	
PROJECT ASSISTANT I	\$20.70	54	10.00	\$2.07	72	10.00	\$2.07	0	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	
SURVEYOR	\$38.40							60	50.00	19.20										
SR. PARTY CHIEF	\$33.80							60	50.00	16.90										
Sub-Totals		540	100.00	40.17	716	100.00	41.16	120	100.00	36.10										
WGTD RATE WITH ESCALATION*	1.50%			\$40.77			\$41.78			\$36.64										

**ROLLINS ROAD GRADE SEPARATION  
PHASE II DIRECT COSTS**

Item	Unit	Unit Cost	2.0 PROJECT COORDINATION		4.0 CIVIL PLANS		6.0 STRUCTURAL PLANS		7.0 PUBLIC INVOLVEMENT	
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
<b>I. VEHICLES</b>										
DAILY RATE (owned or leased)	DAY	\$45.00	29	\$1,305.00	0	\$0.00	0	\$0.00	3	\$135.00
PERSONAL VEHICLE MILEAGE	MILE	\$0.51	3300	\$1,683.00	0	\$0.00	0	\$0.00	345	\$175.95
<b>SUBTOTAL</b>				<b>\$2,988.00</b>		<b>\$0.00</b>		<b>\$0.00</b>		<b>\$310.95</b>
<b>II. CADD &amp; REPRODUCTION</b>										
<b>A. COPIES OF DELEVERABLES/MYLARS (IN-HOUSE)</b>										
CADD PLOTTING MEDIUM; MYLAR (6 sq. ft.x 1. \$6/sq.ft.)=\$36.00/plct. (FINAL PSE SUBMITTAL)	PLOT	\$36.00	0	\$0.00	559	\$20,124.00	143	\$5,148.00	0	\$0.00
2. CADD PLOTTING MEDIUM; BOND (6 sq. ft.x 2. \$1/sq.ft.)=\$6.00/plct. (2 SUBMITTALS, 1 set each)	PLOT	\$6.00	0	\$0.00	1677	\$10,062.00	429	\$2,574.00	0	\$0.00
<b>B. COPIES OF DELEVERABLES/MYLARS (OUTSIDE)</b>										
1. FULL SIZE; BOND (22 SETS)	SHEET	\$0.60	0	\$0.00	12298	\$7,378.80	3146	\$1,887.60	0	\$0.00
2. 11" X 17"; BOND (75 SETS-CIVIL, 62 SETS-STR)	SHEET	\$0.20	0	\$0.00	41925	\$8,385.00	8866	\$1,773.20	0	\$0.00
3. 8.5" X 11" (75 SETS @ 200 SHTS/SET-CIVIL, 62 SETS @ 100 SHTS/SET-STR)	SHEET	\$0.10	0	\$0.00	15000	\$1,500.00	6200	\$620.00	0	\$0.00
<b>C. REPORTS (Quantities-3, Design Calculations-3, Includes Civil &amp; Str.)</b>	RPT	\$50.00	0	\$0.00	6	\$300.00	6	\$300.00	0	\$0.00
<b>SUBTOTAL</b>				<b>\$0.00</b>		<b>\$47,749.80</b>		<b>\$12,302.80</b>		<b>\$0.00</b>
<b>III. OVERNIGHT DELIVERY/POSTAGE/COURIER SERVICE</b>	PACKAGES	\$50.00	25	\$1,250.00	10	\$500.00	10	\$500.00	10	\$500.00
<b>SUBTOTAL</b>				<b>\$1,250.00</b>		<b>\$500.00</b>		<b>\$500.00</b>		<b>\$500.00</b>
<b>IV. MISCELLANEOUS</b>										
<b>A. WEBSITE HOSTING</b>	MONTH	\$100.00	0	\$0.00	0	\$0.00	0	\$0.00	24	\$2,400.00
<b>B. MEETING SUPPLIES</b>	MEETING	\$200.00	0	\$0.00	0	\$0.00	0	\$0.00	5	\$1,000.00
<b>B. EXHIBIT MOUNTING</b>	EACH	\$20.00	0	\$0.00	0	\$0.00	0	\$0.00	50	\$1,000.00
<b>SUBTOTAL</b>				<b>\$0.00</b>		<b>\$0.00</b>		<b>\$0.00</b>		<b>\$4,400.00</b>
<b>TOTAL</b>				<b>\$4,238.00</b>		<b>\$48,249.80</b>		<b>\$12,802.80</b>		<b>\$5,035.00</b>

**Rollins Road  
Phase II - Civil  
Estimate of Prints**

Size (in)	Unit Area (sq ft)
24x36	6
11x17	1.299

Plan Submittals	# of Sheets	Full Size Sets	Half Size Set	Area (sq ft) (full size)	Area (sq ft) (half size)	TOTAL AREA (SQ FT)
Preliminary Plans	559	6	25	20,124	18,148	38,272
Pre-Final Plans	559	6	25	20,124	18,148	38,272
Final Plans	559	10	25	33,540	18,148	51,688
Special Provisions	15,000					
<b>Totals</b>		<b>22</b>	<b>75</b>	<b>73,788</b>	<b>54,444</b>	<b>128,232</b>

Full Size

Preliminary Plans 6 sets for Utility Co. Reviews  
 Pre-Final Plans 6 sets for Utility Co. Reviews  
 Final Plans 10 sets (Utility Co's. - 6, LCDOT - 2 & IDOT - 2)

Half Size

Preliminary Plans 25 Sets (LCDOT, IDOT, Railroads & Others)  
 Pre-Final Plans 25 Sets (LCDOT, IDOT, Railroads & Others)  
 Final Plans 25 Sets (LCDOT, IDOT, Railroads & Others)



**Rollins Road  
Phase II - Structural  
Estimate of Prints**

Size (in)	Unit Area (sq ft)
24x36	6
11x17	1,299

Plan Submittals	# of Sheets	Full Size Sets	Half Size Set	Area (sq ft) (full size)	Area (sq ft) (half size)	TOTAL AREA (SQ FT)
Preliminary Plans	143	6	6	5,148	1,114	6,262
Pre-Final Plans	143	6	28	5,148	5,200	10,348
Final Plans	143	10	28	8,580	5,200	13,780
Special Provisions	6,200					
<b>Totals</b>		<b>22</b>	<b>62</b>	<b>18,876</b>	<b>11,513</b>	<b>30,389</b>

Full Size

Preliminary Plans 6 sets for Utility Co. Reviews  
 Pre-Final Plans 6 sets for Utility Co. Reviews  
 Final Plans 10 sets (Utility Co's. - 6, LCDOT - 2 & IDOT - 2)

Half Size

Preliminary Plans 6 sets for In-Progress reviews by LCDOT, IDOT or Railroads  
 Pre-Final Plans 3 sets for BBS + 25 Sets (LCDOT, IDOT, Railroads & Others)  
 Final Plans 3 sets for BBS + 25 Sets (LCDOT, IDOT, Railroads & Others)

**Estimated Hours and Costs  
(Images Inc.)**

**PAYROLL ESCALATION TABLE  
FIXED RAISES**

FIRM NAME  
PRIME/SUPPLEMENT

Images, Inc.  
PRIME- Rollins Road Phase 2

DATE 02/19/11  
PTB NO. \_\_\_\_\_

CONTRACT TERM  
START DATE  
RAISE DATE

24 MONTHS  
6/1/2011  
10/1/2011

OVERHEAD RATE  
COMPLEXITY FACTOR  
% OF RAISE

151.00%  
3.00%

**ESCALATION PER YEAR**

6/1/2011 - 10/1/2011  
4  
24

= 16.67%  
= 1.0353

10/2/2011 - 10/1/2012  
12  
24

51.50%

10/2/2012 - 6/1/2013  
8  
24

35.36%

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

3.53%







**Estimated Hours and Costs  
(Mathewson Right-of-Way Company)**

## Lake County Rollins Road at Illinois Route 83

Parcel Number	Appraisal Review			Total
	Appraisal Fee	Fee	Negotiation Fee	
001 & TE	\$3,500.00	\$1,400.00	\$3,000.00	\$7,900.00
002-A & B & TE	\$4,800.00	\$1,920.00	\$3,000.00	\$9,720.00
003	\$2,000.00	\$800.00	\$3,000.00	\$5,800.00
004 & TE	\$2,000.00	\$800.00	\$3,000.00	\$5,800.00
006 & TE	\$3,750.00	\$1,500.00	\$3,000.00	\$8,250.00
007 & TE	\$3,000.00	\$1,200.00	\$3,000.00	\$7,200.00
008TE	\$1,500.00	\$600.00	\$3,000.00	\$5,100.00
009	\$2,000.00	\$800.00	\$3,000.00	\$5,800.00
011 & TE	\$1,500.00	\$600.00	\$3,000.00	\$5,100.00
012	\$2,000.00	\$800.00	\$3,000.00	\$5,800.00
013	\$2,000.00	\$800.00	\$3,000.00	\$5,800.00
014	\$2,000.00	\$800.00	\$3,000.00	\$5,800.00
015	\$2,000.00	\$800.00	\$3,000.00	\$5,800.00
016 & TE	\$1,500.00	\$600.00	\$3,000.00	\$5,100.00
017PE-A & B, TE-A & B & C	\$2,000.00	\$800.00	\$3,000.00	\$5,800.00
018 & TE	\$3,000.00	\$1,200.00	\$3,000.00	\$7,200.00
019TE-A & B & C & D	\$3,000.00	\$1,200.00	\$3,000.00	\$7,200.00
021TE	\$2,500.00	\$1,000.00	\$3,000.00	\$6,500.00
022TE	\$3,000.00	\$1,200.00	\$3,000.00	\$7,200.00
023TE-A & B	\$3,000.00	\$1,200.00	\$3,000.00	\$7,200.00
024 & TE	\$3,500.00	\$1,400.00	\$3,000.00	\$7,900.00
025 & TE	\$3,500.00	\$1,400.00	\$3,000.00	\$7,900.00
026 & TE	\$3,500.00	\$1,400.00	\$3,000.00	\$7,900.00
027 & TE	\$3,500.00	\$1,400.00	\$3,000.00	\$7,900.00
028 & TE	\$1,500.00	\$600.00	\$3,000.00	\$5,100.00
029	\$1,500.00	\$600.00	\$3,000.00	\$5,100.00
031 & TE.	\$1,500.00	\$600.00	\$3,000.00	\$5,100.00
032TE	\$1,500.00	\$600.00	\$3,000.00	\$5,100.00
033PE & TE	\$3,000.00	\$1,200.00	\$3,000.00	\$7,200.00
	<b>\$73,050.00</b>	<b>\$29,220.00</b>	<b>\$87,000.00</b>	<b>\$189,270.00</b>

Total for Appraisal Appraisal Review and Negotiation:				<b>\$189,270.00</b>
Title Commitments and Later Dates:				<b>\$14,500.00</b>
Residential Relocation:	4 units	60 hours estimated	\$130 per hour	<b>\$31,200.00</b>
Commercial Relocation:	8 units	60 hours estimated	\$130 per hour	<b>\$62,400.00</b>
Relocation Contingency:	20% of Relocation Estimate (if not to exceed option)			<b>\$18,270.00</b>
Project Management, Client Meetings,				
Relocation Services Coordination:		80 hours estimated	\$250 per hour	<b>\$20,000.00</b>

**Grand Total:** **\$335,640.00**

The number above is a not to exceed total based on the parcel count above. If the relocation expenses are treated as estimates they can be billed as actual cost otherwise they will be invoiced as \$9,360 per relocation unit.

There will be additional title and closing costs associated with each settled file. These charges cannot be accurately predicted and are added to the purchase price at the time of closing.