

PAYROLL RATES

FIRM NAME	HLR Engineering	DATE	12/19/16
PRIME/SUPPLEMENT	Prime		
PSB NO.	n/a		

ESCALATION FACTOR **0.00%**

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
PRINCIPAL	\$72.00	\$72.00
ENGINEER 6	\$53.33	\$53.33
ENGINEER 5	\$50.00	\$50.00
ENGINEER 4	\$43.24	\$43.24
ENGINEER 3	\$39.50	\$39.50
ENGINEER 2	\$35.90	\$35.90
ENGINEER 1	\$28.50	\$28.50
STRUCTURAL 2	\$57.33	\$57.33
STRUCTURAL 1	\$43.00	\$43.00
TECHNICIAN 3	\$36.25	\$36.25
TECHNICIAN 2	\$29.28	\$29.28
TECHNICIAN 1	\$22.88	\$22.88
INTERN/TEMPORARY	\$17.00	\$17.00
LAND ACQUISITION	\$39.00	\$39.00
SURVEY 2	\$39.67	\$39.67
SURVEY 1	\$30.67	\$30.67
ENVIRONMENTAL 2	\$40.00	\$40.00
ENVIRONMENTAL 1	\$18.27	\$18.27
ADMINISTRATION 2	\$37.15	\$37.15
ADMINISTRATION 1	\$20.00	\$20.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00



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Lake County Division of Transportation ITS and Traffic Signal Design Phase II Engineering

Scope of Work

I. INTRODUCTION

The Lake County Division of Transportation intends to integrate existing IDOT and LCDOT signals into the Lake County PASSAGE system. The work will include preparing PS&E for the entire project scope, which is envisioned to include installing new underground conduit, fiber optic cable, tracer cable, Layer II switches, PTZ cameras, traffic signal controllers, and other ITS and communications related equipment and hardware at various locations throughout Lake County. In addition, the consultant will be responsible for following the IDOT District One Bureau of Traffic Permit process.

II. SCOPE OF SERVICES

Phase II engineering for design of traffic signals modifications and upgrades for incorporation into the LCDOT PASSAGE system. The base project includes fiber optic interconnect along US Route 45 from Jewel Entrance to Courtland Street in Mundelein, Alternate A includes installing fiber interconnect along Hawley Street from Midlothian Road to IL Route 60, Alternate B includes wireless communications between the Mundelein Water Tower and IL Route 176 & Midlothian Road and Alternate C includes wireless communications between the same watertower and IL 60/83 from IL Route 176 to the Home Depot entrance. Minor survey of the existing roadway will be necessary to verify field conditions with the majority of the work being done on existing plans and aerials. There are no CCDD services included in the scope; it is assumed we can keep all material on site. The plans will be submitted to IDOT Traffic Permits for approval.

Task 1 – Start-up, Data Collection, Survey

HLR will conduct a field inspection of the project sites to verify existing conditions match the plans and aerials obtained from IDOT and LCDOT. A photo log will be compiled for any inconsistencies to document the need for additional topographic survey. It is assumed that only minor survey will be required to spot check the existing plans and aerials and to pick-up locations where current plans don't match the field conditions.

We will prepare for, attend and write meeting minutes for a project kick-off meeting with County staff that will cover project schedule and submittal milestones. HLR will review and analyze the project-related data and records provided by IDOT and Lake County, including utility plans. A design-level JULIE locate will be done to determine the utilities in the area; these utility companies will be contacted for more information. We will prepare a letter for Lake County to send to IDOT requesting any plans they have available. Staff from HLR will scan through the plans at IDOT and



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make copies as necessary (sometimes IDOT requires someone to come and go through the microfilm to find the necessary sheets).

Task 2 – Traffic Signal Plans

HLR will prepare the preliminary and prefinal plans and specifications for the subject improvements. The contract plans will be signed and certified by a Licensed Professional Engineer in Illinois. It is assumed that one set of plans will be prepared for the Base project and all Alternates, with separate quantity calculations and engineer's estimate of probable construction cost for each part. Traffic signal modification plans and cable plans will be completed for the 10 main intersections (4 in the Base project, 2 in Alternate A, 1 in Alternate B and 3 in Alternate C). An additional line item has been included to prepare the traffic signal modification plans and cable plans for 3 optional intersections in the Base project (US Route 45 from IL Route 60 to Jewel, from Diamond Lake to Allanson and from Courtland to Hawley) if new SM fiber is needed.

Interconnect plans will be completed for the Base project and Alternate A only; with interconnect schematic drawings for all 4 alternates. Fiber diagrams for all alternates will be prepared by Parsons; LCDOT will coordinate with Parsons Engineering. The plan sets will include construction details and standard drawings. Quantity calculations with engineer's opinion of probable construction cost for each alternate will be broken out separately. Two meetings with the County to discuss project status and plan reviews are included.

Task 3 – Permit Coordination

HLR will coordinate the review of the plans through the IDOT permit process. The plan set will be submitted to IDOT for review and updated per their comments. Two review cycles through IDOT are assumed. We will prepare the transmittal letter to Lake County, forward the partially signed permit with instructions for processing and respond to questions once the plans have been accepted by IDOT. We will obtain the signed permit and performance bond from the selected contractor and prepare the transmittal letter to IDOT with the permit documents.

Task 4 – Project Administration & Management and Quality Assurance / Quality Control

HLR will complete in-house management of manpower and coordinate the design and plan development. A kick-off meeting will be conducted with Lake County and HLR staff to determine milestone schedule, submittal requirements and project scope. The work includes the time for project-related progress reports, invoicing and filing.

HLR will conduct independent QA/QC reviews to ensure that the final design and contract plans meet the approval of LCDOT and the policy guidelines of IDOT. QA/QC will be completed by Al Stott for the final contract plans.



EXHIBIT A
Lake County Division of Transportation
ITS and Traffic Signal Design
Phase II Engineering Services
Anticipated Scope of Services

Phase II engineering for design of traffic signals modifications and upgrades for incorporation into the LCDOT PASSAGE system. The base project includes fiber optic interconnect along US Route 45 from Jewel Entrance to Courtland Street in Mundelein, Alternate A includes installing fiber interconnect along Hawley Street from Midlothian Road to IL Route 60, Alternate B includes wireless communications between the Mundelein Water Tower and IL Route 176 & Midlothian Road and Alternate C includes wireless communications between the same watertower and IL 60/83 from IL Route 176 to the Home Depot entrance. Minor survey of the existing roadway will be necessary to verify field conditions with the majority of the work being done on existing plans and aerials. There are no CCDD services included in the scope; it is assumed we can keep all material on site. The plans will be submitted to IDOT Traffic Permits for approval.

Description	<u>E5</u>	<u>E4</u>	<u>E3</u>	<u>E1</u>	<u>T1</u>	<u>S2</u>	<u>A1</u>	<u>Hours</u>
I. Start-up, Data Collection, Survey								
a. Field inspection of the project sites.		16	16					32
b. Project kick-off meeting with LCDOT	3		3					6
c. Conduct pick-up topographic survey of the project, download data and plot.					6	24		30
d. Obtain and review existing plans provided by IDOT and the County.			8	6				14
e. Utility coordination.		8			8			16
Task I Sub-Total =	3	24	27	6	14	24	0	98
II. Traffic Signal Plans								
a. Project Setup & Initiation			2					2
b. Plot existing plans (as necessary)					16			16
c. Prepare Cover Sheet, General Notes, SOQ		2			4			6
d. Traffic signal modification plans and cable plans (assumes 10 intersections)		20	20		20			60
e. Additional traffic signal modification plans and cable plans for US Route 45 from IL Route 60 to Jewel, from Diamond Lake to Allanson and from Courtland to Hawley if new SM fiber is needed (3 intersections)		6	6		12			24
f. Standard District 1 details (project wide)					2			2
g. Interconnect plan (Base project and Alternate A)		22	40		40			102
h. Interconnect schematic (all 4 alternates)		8	8					16
i. Construction Details and Standard Drawings		2			8			10
j. Coordination for County reviews, plan updates and preparation of submittal packages.		12	12					24
k. Quantity Calculation with EOPCC		4	12					16
l. Specifications			4				2	6
m. Printing, Plotting & Typing		1					4	5
n. Meetings with County		8	8					16
Task II Sub-Total =	0	85	112	0	102	0	6	305
III. Permit Coordination (IDOT)								
a. Forward Plans to IDOT for review.		2						2
b. Update plans per IDOT review comments. Submit updated plans to IDOT with supporting documentation and disposition of comments (assume 2		8	24		24			56
c. Conduct follow-up coordination with IDOT.		4						4
d. Prepare transmittal letter to Lake County, forward partially signed permit with instructions for processing, and respond to questions.		1						1
e. Obtain the signed permit and performance bond from selected contractor.		1						1
f. Prepare transmittal letter to IDOT with permit documents, performance bond, plans, specifications and CD with dgn and pdf files.		1		3				4
Task III Sub-Total =	0	17	24	3	24	0	0	68
III. Project Administration and QC/QA								
a. Project Administration		20						20
b. Quality Control/Quality Assurance		16						16
Task III Sub-Total =	36	0	0	0	0	0	0	36
Subtotals Engineering Hours & Fee =	3	126	163	9	140	24	6	507

Direct Costs:

Mileage for 3 trips to LCDOT	Cost
Mileage for site visit	\$ 129.60
Vehicle day for survey vehicle (3 day)	\$ 54.00
	\$ 195.00