

SCOPE OF WORK

Proposed improvements to Fabyan Parkway (CH 21) from IL 38 to the County Line, Section 08-00210-03-FP, are anticipated to include two 12-foot thru lanes in each direction separated by an 18-foot barrier median, with dual left turn lanes and a right turn lane in both directions at the intersection of Fabyan Parkway and Technology Boulevard. Additional scope includes a multi-use path on the south side of Fabyan Parkway between Technology Boulevard and McChesney Road, a combination of open and closed drainage, and the replacement of the double box culvert at Kress Creek.

The proposed limits of construction will extend from approximately eight hundred feet west of IL 38 to the DuPage/Kane County line. The limits of improvement measure approximately 8,000 feet.

During the development of the Phase II plans, after the preliminary submittal, a letter from the National Resource Review (NRR) was received. The letter dated, June 15, 2023, stated that no construction could occur “along Fabyan Parkway on both the north and south sides of Fabyan Parkway starting 200 feet west of detention pond SF-10 west boundary to 200 feet east of SF-10 east boundary from April 15th through August 31st of any construction year.” This change required conceptual redesign of the maintenance of traffic plan in order to accommodate this change. This requirement was ultimately revised (see next paragraph), however conceptual effort was made to accommodate this change.

A revised NRR letter dated July 26, 2023 was received which revised the construction limitations to “avoid all work on and along Fabyan Parkway beyond 50 feet north of the centerline of Fabyan Parkway, from Station 96+00 to Station 111+00 from April 15th through August 31st of any construction year. Staging and vehicle parking shall not occur in this area during April 15th through August 31st of any construction year.” This change required a new approach to staging the construction and plans had to be revised a second time.

During the development of the Phase II plans, the Jurisdictional Determination expired and requires resubmitting and/or engineers opinion. Knight will coordinate with the ACOE to determine how to proceed. A new JD submittal or an engineers opinion will be required to proceed.

During the development of Phase II plans, DuPage County requested the temporary easements and proposed right of way be evaluated to limit the amount of property takes at multiple locations. Knight will analyze these locations and provide revised proposed right of way and temporary easements where appropriate.

During the development of Phase II plans, DuPage County requested Knight to analyze the Fabyan Boulevard and Technology Boulevard intersection geometry to determine if modifications to the geometry could avoid impacts to the DuPage County Technology Park signage and retaining walls. Upon determining it was possible to redesign the intersection geometry, plans and quantities were updated to reflect the geometric revisions.

Knight proposes to perform the following supplemental Phase II Engineering services. These services are in addition to the services provided in the original agreement dated May 10, 2020. The attached Workhour Estimate and CECS provide additional detailed information in a similar order as provided below.

Phase II Plan Development

A detailed workhour estimate for “Phase II Plan Development and Other Phase II PS&E Tasks” is included herein that provides brief remarks for any contract documents affected by the NRR letter revisions and other tasks.

The Supplemental Phase II scope will include preparation of engineering plans, specifications and estimates for the following task related to the two NRR letters received.

- 1) Conceptual change due to first NRR letter received
 - a. Meetings with Construction staff to discuss means and methods
 - b. Initial drafting of conceptual plans
- 2) Conceptual change due to second NRR letter
 - a. Meeting with Construction staff to discuss means and methods
 - b. Initial drafting of conceptual models
 - c. General notes, typical sections, plan sheet revisions, and details for the new MOT concept

Deliverables: Revised MOT plans in conformance with the second NRR letter’s restrictions on construction.

Design, Permitting and Coordination

Jurisdictional Wetland Determination: The approved wetland jurisdictional determination (JD) for this project area, issued on March 16th, 2021, is no longer valid. Knight will coordinate with the Army Corp of Engineers (ACOE) with determining procedures going forward up to and including a new JD submittal if required. In the event that a new JD is not required, Knight environmental staff will give their professional opinion on the JD status of the wetlands which will allow the design to proceed.

Deliverables: Knight will provide its professional opinion on the jurisdictional status of the wetland sites on the project.

NWP 14 Pre-construction Notification: Knight will prepare a pre-construction notification (PCN) to submit to the ACOE as require under Nationwide Permit 14 for impacts to jurisdictional waters of the U.S. The PCN will include wetlands and waterbodies assumed to be jurisdictional based on Knight environmental staff’s professional opinion and coordination with the ACOE. The PCN will quantify jurisdictional wetland impacts and request authorization for those impacts under NWP 14.

Deliverables: Knight will submit a PCN for the Project to the ACOE requesting authorization under NWP 14.

Proposed R.O.W. and Easements: Knight was asked to investigate the proposed right of way and temporary easements at the following locations for the potential of reducing the take areas of the following parcels:

Parcel 0004

Station 55+00 to 57+00, south proposed right of way

Station 57+00 to 63+75, south proposed right of way and temporary easement

Parcel 0005

Revise proposed right of way to not cover the existing sign and walls

Parcels 0013 and 0014

Station 108+00 to 109+50 field entrance location change

Knight will investigate the need for the right of way and easements and make adjustments to the plans for areas taken to reduce the total take where appropriate. Updated plats and legals will be provided by American Surveying and Engineering utilizing existing budget.

Deliverable: Revised plans showing the new right of way and easements. Updated signed plat and legal (by ASE).

Revisions to Fabyan/Technology Boulevard Intersection Geometry: Knight will investigate the potential to revise the intersection geometry to allow for 5 feet of clear space between the existing signs and retaining walls and still allow for all design vehicle turning movements. Work will include revising the curblines geometry, preparing auto-turn exhibits, revising roadway, drainage, traffic signal, MOT, pavement marking, erosion control, seeding, and cross section plans and the associated quantities. Specifications will be reviewed and updated to reflect any changes as necessary. This work will be incorporated into an updated Pre-Final submittal to be reviewed by DuPage County.

Deliverables: Updated plans, specifications, and quantities reflecting the changes made to the intersection as described above.

As-Needed

As-Needed work is provided for future out of scope work. This work shall require prior authorization by DuPage County before being used.

Assumptions

All assumptions from the original agreement are still in effect. There are no new general assumptions, other than what is outlined in the proposed items above.

QC/QA

All work shall be completed to meet current IDOT and DuPage County policies, procedures and standards and reviewed according to Knight quality control and quality assurance procedures.

Payroll Escalation Table
Fixed Raises
DLM 2.80

FIRM NAME: Knigh E/A, Inc.
 PRIME/SUPPL: Prime
 ROUTE: Fabyan Pkwy (CH 21)
 SECTION: 08-00210-03-FP
 COUNTY: DuPage

DATE: 06/27/24
 PTB NO. N/A

CONTRACT TERM 24 MONTHS
 START DATE 6/1/2024
 RAISE DATE 1/1/2025

OVERHEAD RATE 141.08%
 COMPLEXITY FACTOR 0
 % OF RAISE 3.00%

6/1/2024	-	1/1/2025
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1/2/2025	1/1/2026
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1/2/2026	6/1/2026
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7	12
24	24

12	5
24	24

5	
24	

29.17%

51.50%

22.10%

The total escalation for this project would be: **2.77%**

AVERAGE HOURLY PROJECT RATES

FIRM: Knight E/A, Inc.
JOB NO.: N/A

ROUTE: Fabyan Pkwy (CH 21)
SECTION: 08-00210-03-FP
COUNTY: DuPage

DATE: 06/27/24

SHEET 1 of 1

Payroll Classification	Avg Hourly Rates	Total Project Rates			Phase II Plan Development			Design, Permitting & Coord			As-Needed			Admin/ Management			QC/QA		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal (Vice President)	78.00	18	3.91%	3.05													18	100.00%	78.00
Project Manager (Prinicpal Engineer)	78.00	22	4.78%	3.73							4	2.60%	2.03	18	100.00%	78.00			
Senior Engineer II, Planner II	73.62	15	3.26%	2.40				5	5.26%	3.87	10	6.49%	4.78						
Senior Engineer I, Planner I	70.36	46	10.00%	7.04	7	4.00%	2.81	15	15.79%	11.11	24	15.58%	10.97						
Project Engineer II, Planner II	62.89	109	23.70%	14.90	55	31.43%	19.77	30	31.58%	19.86	24	15.58%	9.80						
Project Engineer I, Planner I	57.40	104	22.61%	12.98	55	31.43%	18.04	25	26.32%	15.11	24	15.58%	8.95						
Engineer IV, Planner IV	50.75	57	12.39%	6.29	23	13.14%	6.67	10	10.53%	5.34	24	15.58%	7.91						
Engineer III, Planner III	45.80	69	15.00%	6.87	35	20.00%	9.16	10	10.53%	4.82	24	15.58%	7.14						
Engineer II, Planner II, Designer III	42.06	20	4.35%	1.83							20	12.99%	5.46						
Engineer I, Planner I, Designer II	33.09	0																	
Senior Administration	73.37	0																	
Office Administration	28.16	0																	
0	0.00	0																	
0	0.00	0																	
0	0.00	0																	
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TOTALS		460	100%	\$59.09	175	100.00%	\$56.45	95	100%	\$60.11	154	100%	\$57.03	18	100%	\$78.00	18	100%	\$78.00



Direct Costs Check Sheet

Prime Consultant Name Knight E/A, Inc.	PTB Number N/A	State Job Number(s) N/A
<input checked="" type="checkbox"/> Prime <input type="checkbox"/> Supplement Date <u>06/27/24</u>		

Consultant
n/a

Item	Allowable	Utilize	Quantity	Contract Rate	Total
		W.O. Only	J.S. Only		
Per Diem (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum	<input type="checkbox"/>			
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost (Up to state rate maximum)	<input type="checkbox"/>			
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost	<input type="checkbox"/>			
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval	<input type="checkbox"/>			
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum	<input type="checkbox"/>			
Vehicle Owned or Leased	\$32.50/half day (4 hours or less) or \$65/full day	<input type="checkbox"/>			
Vehicle Rental	Actual cost (Up to \$55/day)	<input type="checkbox"/>			
Rental Vehicle Fuel	Actual cost (Submit supporting documentation)	<input type="checkbox"/>			
Tolls	Actual cost	<input type="checkbox"/>			
Parking	Actual cost	<input type="checkbox"/>			
Overtime	Premium portion (Submit supporting documentation)	<input type="checkbox"/>			
Shift Differential	Actual cost (Based on firm's policy)	<input type="checkbox"/>			
Overnight Delivery/Postage/Courier Service	Actual cost (Submit supporting documentation)	<input type="checkbox"/>			
Copies of Deliverables/Mylars (In-house)	Actual cost (Submit supporting documentation)	<input type="checkbox"/>			
Copies of Deliverables/Mylars (Outside)	Actual cost (Submit supporting documentation)	<input type="checkbox"/>			
Project Specific Insurance	Actual cost	<input type="checkbox"/>			
Monuments (Permanent)	Actual cost	<input type="checkbox"/>			
Photo Processing	Actual cost	<input type="checkbox"/>			
2-Way Radio (Survey or Phase III Only)	Actual cost	<input type="checkbox"/>			
Telephone Usage (Traffic System Monitoring Only)	Actual cost	<input type="checkbox"/>			

Item	Allowable	Utilize W.O. Only	Quantity J.S. Only	Contract Rate	Total
CADD	Actual cost (Max \$15/hour)	<input type="checkbox"/>			
Website	Actual cost (Submit supporting documentation)	<input type="checkbox"/>			
Advertisements	Actual cost (Submit supporting documentation)	<input type="checkbox"/>			
Public Meeting Facility Rental	Actual cost (Submit supporting documentation)	<input type="checkbox"/>			
Public Meeting Exhibits/Renderings & Equipment	Actual cost (Submit supporting documentation)	<input type="checkbox"/>			
Recording Fees	Actual cost	<input type="checkbox"/>			
Transcriptions (specific to project)	Actual cost	<input type="checkbox"/>			
Courthouse Fees	Actual cost	<input type="checkbox"/>			
Storm Sewer Cleaning and Televising	Actual cost (Requires 2-3 quotes with IDOT approval)	<input type="checkbox"/>			
Traffic Control and Protection	Actual cost (Requires 2-3 quotes with IDOT approval)	<input type="checkbox"/>			
Aerial Photography and Mapping	Actual cost (Requires 2-3 quotes with IDOT approval)	<input type="checkbox"/>			
Utility Exploratory Trenching	Actual cost (Requires 2-3 quotes with IDOT approval)	<input type="checkbox"/>			
Testing of Soil Samples*	Actual cost (Provide breakdown of costs to the Department for approval)	<input type="checkbox"/>			
Lab Services*	Actual cost (Provide breakdown of cost for each lab service to the Department's PM for approval)	<input type="checkbox"/>			
Equipment and/or Specialized Equipment Rental*	Actual cost (Rental - 2-3 quotes needed / Owned - provide depreciated value for IDOT approval)	<input checked="" type="checkbox"/>	1	\$302.86	\$302.86
		<input type="checkbox"/>			
		<input type="checkbox"/>			
		<input type="checkbox"/>			
		<input type="checkbox"/>			
		<input type="checkbox"/>			
		<input type="checkbox"/>			
		<input type="checkbox"/>			
		<input type="checkbox"/>			
		<input type="checkbox"/>			
				Total Direct Cost	\$302.86

*If other allowable costs are needed and not listed, please add in the above spaces provided.

LEGEND

W.O. = Work Order

J.S. = Job Specific

Direct Costs Sheet

Knight E/A, Inc
Fabyan Parkway
6/27/2024

Mileage and Tolls					
Task	No. of Trips	Miles (Round Trip)	Total Miles	Tolls/trip	Total Tolls
Vehicle Rental					
Site Vists			0		0
Total			0		\$ -

Printing and Reproduction									
Submittals	24" x 36"			11x17			8-1/2" x 11"		
	#	Sets	Total	#	Sets	Total	#	Sets	Total
Utility Coord Plan Sets									
Final Plans									
Dist 1 Review Plan Sets									
Preliminary Plan Set									
Pre-Final Plan Set									
Final Plan Set									
Special Provisions									
Preliminary Submittal									
Pre-Final Submittal									
Final Plan Submittal									
Total			0			0			0
Cost/Sheet						\$ 0.20			\$ 0.10
Total Cost						\$ -			\$ -
Total									\$ -

Equipment Rental	Number of Visits	Cost/Visit	Total
GPS Locators for Wetland Delineations	1	\$302.86	\$302.86

Workhour Estimate

Fabyan Parkway (CH 21)

Type of Work: Phase II Engineering
 Route: Fabyan Parkway (CH 21)

Location: IL 38 to DuPage/Kane County Line Interchange
 Section: 08-00210-03-FP

Task Item	Shts	Hours	Workhour Calculations/ Remarks
A) Phase II Plan Development			
1) Cover Sheet, Index, Standards			
2) General Notes, Legend, Mix Req's, Commitments			
3) Summary of Quantities			
4) Typical Sections			
5) Schedule of Quantities			
6) Survey Layout Information (Alignments, Ties, BM's)			
7) Removal Plans			
8) Plan and Profile Sheets (Roadway)			
9) Traffic Control (Staging) Plans	15	75	1 Narrative, 2 typical cross sections, 12 plan sheets = 15 x 5 hrs/sheet
9a) MOT staging Coordination for NRR Letters	n/a	100	Two concept developments 4 ppl (1 junior engineer, 1 mid level engineer, 2 senior engineers) x 10hr for 1st concept = 40hrs and x 5 hours for second concept = 20 hours, Construction Engineer for method of construction of culvert = 4hr/concept x 2 concepts = 8 hrs, Culvert installation design and coordination with Structural Engineer 8 hrs/concept x 2 concepts = 16 hrs, Coordination with DuPage County 8 hr/concept x 2 concepts = 16 hrs
10) Detour Plans			
11) Soil Erosion and Sediment Control Plans			
12) Drainage and Utilities Plans (Roadway)			
13) Plan Details for Compensatory Storage Areas			
14) Right-of-Way Plans			
15) Intersection and ADA Ramp Details			
16) Superelevation Details			
17) Pavement Marking and Signing Plans			
18) Landscaping Plans			
19) Traffic Signal Plans			
20) Temporary Traffic Signal Plans			
21) Traffic Signal Interconnect Plans			
a) Scenario #1: Cellular Install			
b) Scenario #2: Fiber West to Kautz Road			
c) Scenario #3: Fiber East to Private Drive			
22) Lighting Plans			
a) Lighting Design			
b) Cable/Conduit Layout and Design			
c) Plans Sheets			
d) Wiring and Diagram Details			
e) Controller and Panel Equipment Details			
f) Light Foundation and Anchor Bolt Details			
g) Misc Electrical Details			
23) Temporary Lighting Plans			
24) Bridge Plans			
25) Wetland Details			
26) Culvert Plans			
27) Misc Details			
28) Cross Sections			
29) Highway Standards			
Sub-total A)	15	175	

Workhour Estimate

Fabyan Parkway (CH 21)

Type of Work: Phase II Engineering
 Route: Fabyan Parkway (CH 21)

Location: IL 38 to DuPage/Kane County Line Interchange
 Section: 08-00210-03-FP

Task Item	Shts	Hours	Workhour Calculations/ Remarks
B) Other Phase II PS&E Tasks			
1) Quantity Calculations			
2) Special Provisions			
3) Estimate of Cost			
4) Estimate of Time			
5) Site Visits			
6) Phase III Consultation			
Sub-total B)		0	
C) Plats and Legal Descriptions			
1) Refine/Finalize Pr ROW and Easement Limits			
2) Land Boundary/Owner Research, Field Monument Verif			
3) Title Commitments			
4) Prepare ROW and Easement Plats			
5) Prepare ROW and Easement Legal Descriptions			
6) Monument all Permanent Parcels and Permanent Easements			
7) Coordination of Land Acquisition Services			
Sub-total C)		0	
D) Appraisal, Appraisal Review and Negotiation			
1) Appraisal Services			
2) Review Appraisal Services			
3) Negotiation Services			
4) Parcel Acquisitions & Close-out Services			
5) Coordination of Land Acquisition Services			
Sub-total D)		0	
E) Design, Permitting and Coordination			
1) Coordinate Intersection and Traffic Signal Impacts at IL 38			
2) Pre-Construction Informational Meeting			
3) Utility Coordination			
4) Pavement Design			
5) Guardrail LON Assessment/Calculations			
6) US Army Corps Regional Permit Application			
7) Storm Water and Floodway Permitting			
8) IEPA Notice of Intent (NOI) and SWPPP			
9) DuPage County Coordination Meetings (assume 3 mtg)			
10) IDOT Local Roads Coordination Meeting			
11) CCDD Evaluation/Coordination			
12) Jurisdiction Wetland Determination Updates		30	JD Wetland determination meetings/discussions/coorespondence, and professional opinion memo: 30 hours
13) Proposed R.O.W. and Easements		25	Design changes, meeting to discuss, revisions, updates to the plans/callouts
14) Fabyan/Technology Boulevard Intersection		40	Coordination, revised geometry, autoturn exhibits, plan and quantitty updates
Sub-total E)		95	
F) As-needed			
15) As needed hours (to be authorized by DuPage County)		154	Hours to be authorized for use by DuPage County for out of scope items

Workhour Estimate**Fabyan Parkway (CH 21)**Type of Work: Phase II Engineering
Route: Fabyan Parkway (CH 21)Location: IL 38 to DuPage/Kane County Line Interchange
Section: 08-00210-03-FP

Task Item	Shts	Hours	Workhour Calculations/ Remarks
Totals			
1) Sub-total (A) thru (E)	15	424	
2) Admin/ Management	----	18	Figure 4% of Sub-total (A) thru (F)
3) QC/QA	----	18	Figure 4% of Sub-total (A) thru (F)
Grand Total	15	460	