



2580 Foxfield Rd, Suite 301
St. Charles, IL 60174

630-505-1991
rsandh.com

April 2, 2021

Thomas Somodji, PE
Project Manager
Lake County Division of Transportation

**RE: Wadsworth Road at Lewis Avenue, Section No. 13-00055-06-WR
Supplement No. 2 Justification Letter**

Dear Mr. Somodji,

The purpose of this letter is to summarize the efforts to date on the Wadsworth Road at Lewis Avenue project, the events that have spurred a shift in the overall goals for the project, and our approach and additional effort to bringing this project to a successful completion.

Current Project Status

Following the preliminary PS&E submittal, RS&H in partnership with the County, approached the FAA, IDOT Division of Aeronautics, and Waukegan Port District to continue coordination efforts from the approved Phase I. At this time there were shifts in staffing assignments at the forementioned agencies. While initial conversations in Phase I had indicated the process to be straightforward with the only required submittals being the Runway Protection Zone (RPZ) Analysis and the 7460 Airspace Clearance Study, new assigned FAA staff identified that the Runway Safety Area was not only an issue but that a federal order mandated that the area be clear of any hazards to aircraft. Through additional coordination efforts to appease the FAA, including redesign of the intersection and west leg, and resubmittal of the RPZ Analysis without any right-of-way or easements on airport properties, the IDOT Division of Aeronautics and FAA ultimately determined that due to the presence of the existing roadway in the Runway Safety Area, regardless of any improvement, the approvals of the overall project would be impacted.

Given the potential impacts to the airport the project goals have been redefined to include:

- Maintain the schedule for construction to begin in 2022.
- Utilize the awarded CMAP CMAQ funding to the maximum extent practicable.
- Meet Phase I project purpose and need.
- Maintain integrity of Phase I preferred alternative.

Approach to Bring the Project to Completion

Given the complexities and potential airport impacts, the following approach is recommended for your consideration. It is noted that it is the responsibility of the Waukegan Port District to address the airport's compliance with Runway Safety Area order.

To avoid impacting the airport or forcing them into an on-airport improvement to address the RSA issue, we propose a staged approach to the implementation of the improvements. By eliminating work within the RSA for the first construction package, we are able to move forward with a substantial portion of the project providing great immediate value. This first package would include the improvements on Wadsworth Road east of Lewis Avenue from the intersection to the Robert McClory Bike Path, including the installation of channelization along the corridor, all pedestrian accommodations, and the flashing beacon controlled mid-block crossing. The second construction package would complete the roadway and drainage improvements on the west leg of the intersection at a later date. The airport has indicated that there are ongoing discussions to relocate the runway and address the RSA issue, however the timeline is not yet definite.

This plan meets all the project goals listed above. The first construction revision will move forward in the development process with a planned project letting in 2022. Keeping this phase of the project on this timeline will meet the anticipated schedule for the CMAP CMAQ funding and utilize the awarded funding to the maximum

extent practicable. Overall, the 2-step project staging maintains the integrity of the Phase I preferred alternative. Through preliminary traffic investigations, the anticipated timing of the airport runway improvement will coincide with the anticipated start of the need for the right turn lane on the east leg, ensuring the purpose and need of the project is met.

To facilitate this approach, RS&H will move forward with the preparation of two construction packages. Construction Package 1 (east of Lewis Ave. will be brought to 100% completion and let for construction. Construction Package 2 (west of Lewis Ave.) will be brought to 95% completion and the PS&E documents will be provided to the County for future completion (under separate contract) when the airport's schedule is better known. In addition to modifying the design to address the new improvement limits, the drainage design will be updated to address the recent standard modifications adopted by the Lake County Stormwater Management Commission including the permitting of the improvements to meet the Bulletin 75 rainfall data update.

It is anticipated that the design work will be completed throughout 2021 while land acquisition also proceeds throughout the year. To complete these additional services, RS&H requests a total contract supplement of \$86,554 to the original Preliminary Engineering Services Agreement dated October 11, 2016. This includes \$18,687 for DLZ Illinois traffic signal design services to accommodate the changes at the intersection.

Please feel free to call or email if you have any questions, comments, or require additional information. We look forward to continuing our partnership on this project to bring it to a successful conclusion.

Sincerely,
[RS&H, Inc.](#)

A handwritten signature in black ink, appearing to read 'J. Shaw', is positioned above the typed name.

James Shaw, PE
Vice President, Transportation-Infrastructure

**SCOPE OF ENGINEERING SERVICES
LAKE COUNTY DIVISION OF TRANSPORTATION
WADSWORTH ROAD AT LEWIS AVENUE
Phase II – Supplement #2**

RS&H was originally contracted to prepare all documents as a single construction package. Based on the most recent coordination with the FAA and IDOT Division of Aeronautics it has been advised to no longer pursue right-of-way or easements on the airport properties. Given the sensitive nature of the current airport configuration and the issue regarding the Runway Safety Area (RSA) that is not in compliance with the FAA RSA Program (Eff. Oct 1, 1999), the project will be split into two improvements to delay the improvements on the west leg improvement until such time as the RSA issue has been mitigated by the Waukegan National Airport.

This scope includes preparing 2 separate construction packages. One for the improvements east of Lewis Avenue and one for the work west of Lewis Avenue including improvements on Lewis Avenue at the intersection. Construction Package 1, the improvements east of Lewis Avenue, will be brought to 100% completion and prepared for a letting. Construction Package 2, for improvements west of Lewis Avenue, will be brought to 95% completion to be finalized (by others) when the project letting schedule is more defined.

The scope items in this supplement include updates to plans and specifications to address the change in construction packaging and removal of right-of-way/easements on airport properties. Also included are administrative, coordination, and meetings ancillary to the additional scope.

Task 1 – Meetings & Coordination

This scope includes coordination with the Lake County Division of Transportation, Lake County Stormwater Management Commission, IDOT Local Roads/FHWA, and CMAP. Coordination activities includes the materials preparation and attendance for up to 6 meetings.

A memo will be prepared for IDOT Local Roads discussing the construction phasing, including the traffic study of the interim improvement utilizing HCS.

Due to LCSMC's adoption of the new Bulletin 75 rainfall data, the drainage design will be updated to meet the new standard. A permit will be prepared and submitted for Construction Package 1.

Task 2 – Aviation Services

To date RS&H has had extensive coordination with the FAA, IDOT Division of Aeronautics, and the Waukegan Port District including the preparation of multiple analysis, memorandums of understanding, and alternative studies, including RPZ Studies with design alternatives minimizing impacts to the runway protection zone and 7460 analyses for proposed vertical clearances to airport surfaces. RS&H will continue coordination with these agencies. The following tasks are included:

- Resubmittal of the 7460 Airspace Clearance Study for Construction Package 1 (described in Task 3)
- Coordination activities for approval of the above items

Task 3 – Construction Document Preparation

Based on discussions with the IDOT Division of Aeronautics and the FAA, it was determined that the right-of-way on the airport properties should be removed. As a result, the following designs were revised:

- Intersection grading
- Sidewalk design on southeast corner extending along Lewis Avenue to accommodate signal cabinet
- Sideslope tie downs along the west leg of Wadsworth Road and the west side of Lewis Avenue
- Ditch bottom elevations along the west leg of Wadsworth Road
- Temporary and permanent traffic signal layout

Two construction packages, Construction Package 1, comprised of the improvements east of Lewis Avenue will be brought to 100% completion and prepared for a letting in 2022, and Construction Package 2, comprised of improvements west of Lewis Avenue will be brought to 95% completion to be finalized (by others). Work will include the following changes:

- Update roadway geometrics at the intersection to accommodate the staging of the improvements. Revise geometry to remove easements from airport properties.
- Update hydraulics/drainage design for Bulletin 75 rainfall data.
- Revise drainage design for CP1 to maintain as much of the existing storm sewer network on the west leg of Wadsworth Road and tie into the proposed network on Lewis Avenue.
- Revise the roadway and drainage designs for CP2 to tie into the CP1 improvements.
- Preparation of two new maintenance of traffic schemes to accommodate the new project limits for CP1 and CP2.
- Update and separate plans, quantities, specifications, and estimates into two construction packages.

Task 4 – Quality Management

This task includes quality management reviews for the additional scope, changed scope items, and deliverables as noted above. RS&H will follow procedures outlined in the Quality Management Plan. All major submittals will follow internal technical reviews, and the project manager will review progress with respect to budget and schedule at least monthly to ensure that the project remains on track.

Task 5 – Administration

The RS&H team will undertake all other administrative duties necessary to support the successful completion of the above tasks. This work will include:

- General Project Management duties including Project Officer over site
- Writing and filing project correspondence including phone memos, meeting minutes, etc.
- Monitoring project schedule and budget, and preparing monthly invoices and progress reports for submission to the Lake County Division of Transportation Project Manager

ASSUMPTIONS

1. LCDOT/IDOT will prepare bidding documents.
2. LCDOT is responsible for fees associated with any permit applications.
3. LCDOT will coordinate with CMAP regarding scope/schedule revisions and any required preparation of forms for transmittal. RS&H to support this effort by providing exhibits and/or estimates.
4. This scope does not include the preparation of 100% PS&E documents for Construction Package 2.



2580 Foxfield Rd
Suite 301
St. Charles, IL 60174

630-505-1991
rsandh.com

**WORKHOURS AND DIRECT COSTS
LAKE COUNTY DIVISION OF TRANSPORTATION
WADSWORTH ROAD AT LEWIS AVENUE
Phase II – Supplement #2**

1. Meetings & Coordination	
a. Virtual Meetings with LCDOT – Up to 4 (2 staff, 2 hrs + 4 hrs prep)	32
b. Virtual Meeting with LCSMC – Up to 2 (3 staff, 2 hrs + 4 hrs prep)	20
c. Coordination with IDOT/FHWA – Phase I Memo Preparation	16
d. Coordination with LCDOT – Traffic Signals & Project Staging Limits	8
e. Coordination with LCSMC – Permit preparation and submittal	16
f. Coordination with CMAP – CMAQ Funding	16
TOTAL WORKHOURS	108
2. Aviation Services	
a. 7460 Resubmittal	16
b. FAA/IDOT/Airport Coordination	32
TOTAL WORKHOURS	40
3. Construction Documents	
a. Construction Package 1 – complete & let project for construction	
a. Update geometrics and hydraulics for new project limits	32
b. Update MOT staging design	24
c. Plan updates	
- Removals (2 sheets)	4
- Roadway plan (2 sheets)	4
- Drainage plan (3 sheets)	6
- MOT (2 stages, 2 sheets)	8
- Cross sections (5 Lewis, 5 Wadsworth)	10
d. Quantity and Schedule updates	20
e. Specification updates	8
f. Cost Estimate	4
b. Construction Package 2 – complete to 95%	
a. Update geometrics and hydraulics for coordination with CP1	32
b. Update MOT staging design	24
c. Plan updates	
- Make CP1 new “existing” topo linework	16
- Removals	4
- Roadway plan	4
- Drainage	8
- Erosion Control	4
- MOT (2 stages, 2 sheets)	8
- Cross Sections (14 Wadsworth)	14
d. Quantity and Schedule updates	20
e. Specification updates	8
f. Cost Estimate	4
TOTAL WORKHOURS	266
SUCONSULTANT WORKHOURS (DLZ – traffic signal updates)	134

4. Quality Management
TOTAL WORKHOURS (4%)

17

5. Administration
TOTAL WORKHOURS (4%)

17

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME RS&H, Inc.
 PRIME/SUPPLEMENT Supplement
 Prepared By Arielle Malinowski

DATE 04/02/21
 PTB-ITEM# 0

CONTRACT TERM 9 MONTHS
 START DATE 4/12/2021
 RAISE DATE 4/30/2021
 END DATE 1/11/2022

OVERHEAD RATE 178.83%
 COMPLEXITY FACTOR 0
 % OF RAISE 3%

ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	4/12/2021	4/30/2021	1	11.11%
1	5/1/2021	12/31/2021	8	91.56%

The total escalation = 2.67%

PAYROLL RATES

FIRM NAME RS&H, Inc. DATE 04/02/21
 PRIME/SUPPLEMENT Supplement
 PTB-ITEM # 0

ESCALATION FACTOR 2.67%

Note: Rates should be capped on the AVG 1 tab as necessary

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal	\$98.80	\$101.43
Engineer V	\$82.99	\$85.20
Engineer IV	\$65.45	\$67.20
Engineer III	\$47.80	\$49.07
Engineer II	\$34.61	\$35.53
Engineer I	\$29.03	\$29.80
Technician/Designer IV	\$41.88	\$43.00
Admin Assistant IV	\$29.73	\$30.52

Subconsultants

FIRM NAME RS&H, Inc.
PRIME/SUPPLEMENT Supplement
PTB-ITEM # 0

DATE 04/02/21

NAME	Direct Labor Total	Contribution to Prime Consultant
DLZ Illinois	6,253.60	625.36
Total	6,253.60	625.36

AVERAGE HOURLY PROJECT RATES

FIRM RS&H, Inc.
 PTB-ITEM# 0
 PRIME/SUPPLEMENT Supplement

DATE 04/02/21

SHEET 1 OF 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Meetings			Aviation Services			Construction Documents			Quality Management			Administration		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	70.00	38.0	8.68%	6.07	16	14.81%	10.37	2	5.00%	3.50				9	52.94%	37.06	11	64.71%	45.29
Engineer V	70.00	0.0																	
Engineer IV	60.00	136.0	31.05%	18.63	52	48.15%	28.89	30	75.00%	45.00	46	17.97%	10.78	8	47.06%	28.24			
Engineer III	49.07	80.0	18.26%	8.96	32	29.63%	14.54				48	18.75%	9.20						
Engineer II	35.53	60.0	13.70%	4.87				8	20.00%	7.11	52	20.31%	7.22						
Engineer I	29.80	64.0	14.61%	4.35							64	25.00%	7.45						
Technician/Designer IV	43.00	54.0	12.33%	5.30	8	7.41%	3.18				46	17.97%	7.73						
Admin Assistant IV	30.52	6.0	1.37%	0.42													6	35.29%	10.77
		0.0																	
TOTALS		438.0	100%	\$48.61	108.0	100.00%	\$56.98	40.0	100%	\$55.61	256.0	100%	\$42.38	17.0	100%	\$65.29	17.0	100%	\$56.07

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME DLZ Illinois
PRIME/SUPPLEMENT Supplement#1

DATE 03/30/21
PTB NO. Wadsworth @ Lewis

CONTRACT TERM 12 MONTHS
START DATE 4/1/2021
RAISE DATE 1/1/2022

OVERHEAD RATE 160.99%
COMPLEXITY FACTOR 0
% OF RAISE 3.00%

ESCALATION PER YEAR

4/1/2021 - 1/1/2022
9
12

1/2/2022 - 4/1/2022
3
12

= 75.00%
= 1.0075

25.75%

The total escalation for this project would be:

0.75%

AVERAGE HOURLY PROJECT RATES

FIRM DLZ Illinois
PSB Wadsworth @ Lewis
PRIME/SUPPLEMENT Supplement#1

DATE 03/30/21

SHEET 1 OF 3

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			Temp & Prop TS Signal			Exhibits			QA/QC			Project Management					
		Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg
Principal	70.00	0																	
Senior Engr/Civil Eng	56.60	68	50.75%	28.72	40	50.00%	28.30	20	50.00%	28.30	4	57.14%	32.34	4	57.14%	32.34			
Engineer II	48.00	30	22.39%	10.75	20	25.00%	12.00	10	25.00%	12.00									
CAD Designer/Tech	26.60	33	24.63%	6.55	20	25.00%	6.65	10	25.00%	6.65	3	42.86%	11.40						
Administrative	29.00	3	2.24%	0.65										3	42.86%	12.43			
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
TOTALS		134	100%	\$46.67	80	100.00%	\$46.95	40	100%	\$46.95	7	100%	\$43.74	7	100%	\$44.77	0	0%	\$0.00