

This is **EXHIBIT K**, consisting of [] pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated [].

**AMENDMENT TO OWNER-ENGINEER AGREEMENT
Amendment No. 4**

The Effective Date of this Amendment is: _____.

Background Data

Effective Date of Owner-Engineer Agreement: June 13, 2022

Owner: Town of Killington

Engineer: Dufresne Group

Project: Water System

Nature of Amendment: [Check those that are applicable and delete those that are inapplicable.]

- Additional Services to be performed by Engineer
- Modifications to services of Engineer
- Modifications to responsibilities of Owner
- Modifications of payment to Engineer
- Modifications to time(s) for rendering services
- Modifications to other terms and conditions of the Agreement

Description of Modifications:

The detailed scope is described in the attached Scope of Services.

The attached Level of Effort Worksheet presents the \$280,000 fee, which is included in the attached DEC Certification page.

A project schedule is in the attached Project Schedule.

Agreement Summary:

Original agreement amount:	\$283,000
Net change for prior amendments:	\$507,300
This amendment amount:	<u>\$ 280,000</u>
Adjusted Agreement amount:	\$1,070,300

Change in time for services (days or date, as applicable): Refer to Schedule

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect.

OWNER:

Town of Killington

By:

Print

name: Michael Ramsey

Title: Town Manager

Date Signed:

ENGINEER:

Dufresne Group

By:

Print

name: Naomi Johnson, PE

Title: President

Date Signed:

SCOPE OF SERVICES
KILLINGTON WATER SYSTEM – CONTRACTS 5-7 WATER MAIN
KILLINGTON, VT
February 16, 2024

BASIC SERVICES LUMP SUM:

- A. Prepare detailed drawings, specifications, and contract documents suitable to obtain approval from State and Federal funding agencies as well as define the character and extent of construction activities required for public advertisement for bids for construction. Specifications and contract documents will be based on 16 Division documents as defined by the Construction Specifications Institute (CSI) with EJCDC Division 0 documents.

The project is Killington Water System – Contracts 5-7 Water Main (PROJECT).

The PROJECT is approximately 15,100 lf of 8" diameter water main and 1,250 lf of 12" diameter water main from the end of Killington Water System – Contract 4 north for approximately 16,350 ft primarily along Killington Road, with portions on Route 4/100, Miller Brook Road and Hemlock Ridge Road. One pressure reducing and three stream crossing are expected to be included in the design. Roadway improvements and culvert replacements are not included in the design.

The PROJECT description is based on the August 2022 Preliminary Engineering Report by Aldrich and Elliot. The final design contract documents may modify the project identifier to be "Contract 5", which includes the segments originally identified as Contract 5, Contract 6A and Contract 7.

- B. Provide an itemized estimate of construction costs, based on the final design documents. Prepare a Total Project Cost table including construction, engineering, contingencies and other related costs.
- C. Submit drawings, specifications, contract documents and a cost estimate for review to the OWNER and Agency of Natural Resources (ANR) at the 60% and 90% stages of completion. Provide written responses to review comments received from the OWNER and ANR.
- D. Submit 100% complete Drawings and Specifications to the Water Investment Division with a request for authorization to bid. Prepare an updated cost estimate and include with the submittal to WID and the OWNER.
- E. Provide general project management and project administration services including attending weekly or bi-weekly meetings with the OWNER and their representatives.
- F. Provide funding assistance including drafting SRF funding applications and providing ongoing assistance with the SRF funding program. Provide

assistance with estimating costs operating and maintenance costs for the water system.

- G. Prepare an Operation and Maintenance (O&M) Manual for the Killington Water System in the format required by ANR and including the individual O&M manuals for the system's wellhouse and pump station equipment as appendices.
- H. Evaluate the capacity of water main from the Ramshead Subdivision to the Roundabout and future development. Design the water main on Killington Road from the Ramshead Subdivision to the Roundabout and incorporate in the design documents for Contract 4.
- I. Create a computer model of the water system including source, pumping, storage, transmission and distribution mains. Utilize the computer model to simulate design conditions and develop the basis of design for water mains sizes and pressure reducing valves.
- J. Create individual drawings for the town portion of the water service to individual properties along the routes. Provide the drawings for the Town's distribution and attend a meeting with property owners to review the project and obtain input on service locations with the municipal right-of-way.

BASIC SERVICES HOURLY:

- A. Conduct and attend two design review meetings with the OWNER and Drinking Water Groundwater Protection Division officials during the final design phase. Prepare meeting minutes and distribute to attendees.
- B. Complete topographic survey and prepare a basemap showing existing features for the PROJECT, which encompasses a length 16,500 ft and a width of 100 ft. Coordinate with municipal officials and Dig Safe for marking subsurface utilities and obtain the location of the marks during the survey.
- C. Provide the services of a drilling subcontractor to complete subsurface soils explorations along the water main route, consisting of auger borings to a depth of 8 ft or refusal every 200 ft or a total of about 80 borings.
- D. Assist the OWNER in making application for the following permits and related tasks:
 - 1. Stormwater Construction Permit (as an amendment to the Town's pending INDC permit that includes Contract 4).
 - 2. Drinking Water and Groundwater Protection Division Permit to Construct
 - 3. Wetlands Individual Permit, if required
 - 4. Army Corps General Permit, if required
 - 5. Stream Alteration Permit
 - 6. Act 250, if required

Payment of permit fees is not included. The fees will be paid directly by the OWNER to the permitting agencies.

- E. Complete the Environmental Information Document and Environmental Report Form. Coordinate with ANR and provide project design information to obtain Vermont Division of Historic Preservation review. Provide services of a specialty firm for an Archaeological Resource Assessment, if required. Coordinate with and provide project information to ANR for the FNSI process including attending one public hearing.
- F. Prepare exhibits for the PROJECT for the Town attorney's use in preparing easement documents, if required. Property boundary information on the exhibits will be provided by the Town or surveyors retained by the town.

**PROJECT SCHEDULE
KILLINGTON WATER SYSTEM – CONTRACTS 5-7 WATER MAIN
KILLINGTON, VT**

I. General:

- A. The OWNER and DG recognize the project schedule is based on the initiation of services date shown below. Delays in the initiation of the start date or due to OWNER and regulatory review time may delay other interim dates as shown herein.
- B. Engineering services as provided under this AGREEMENT begin with the execution of this AGREEMENT.

II. Schedule:

- A. Services are expected to commence upon receipt of a signed agreement and proceed along the following general schedule:

ITEM DESCRIPTION	ESTIMATED DATE
Topographic Survey	July 1, 2024
60% Submittal	September 1, 2024
90% Submittal	October 31, 2024
100% Submittal	January 10, 2025

TABLE 2 LEVEL OF EFFORT BUDGET WORKSHEET

Date: February 16, 2024

Project Name: Killington Contract 5-7

Task Number	Task Description	President NRJ, PE (Hrs)	VP RM CNH, PE (Hrs)	VP RM AJD, PE (Hrs)	VP RM SHW, PE (Hrs)	PM TPK, PE (Hrs)	PE1 (Hrs)	CM RNG (Hrs)	Proj Eng EAE (Hrs)	Proj Eng CWF (Hrs)	Eng Tech2 MCB (Hrs)	Eng Tech3 JLG (Hrs)	Eng Tech3 MJO (Hrs)	Eng Tech3 AMG (Hrs)	OM MAV (Hrs)	OA BL (Hrs)	Sub Consult (Dollars)	Expenses (Dollars)	Cost Per Task
A	Basic Lump Sum																		
	Design drawings:																		
	Cover						2						4					\$500	\$500
	General, Notes and Legend						4						8					\$1,180	\$1,180
	Water Main Plan and Profiles (14 sheets)	24					120					240						\$35,720	\$35,720
	Stream crossing with details (3)	2					24					36						\$6,420	\$6,420
	Erosion control plan and details	4					6					8						\$2,150	\$2,150
	Water general details	4					8					8						\$1,180	\$1,180
	Process drawing for 1 PRV	2					4					12						\$2,380	\$2,380
	Electrical drawing for RTU and power at PRV vault	8					6					4					\$21,000	\$120	\$23,890
	Specifications	8					40					20						\$90	\$9,590
B	Cost estimate	6					12	20				20						\$6,580	\$6,580
C	Design submittals (2)	16					24					24						\$5,520	\$5,520
D	100% Submittal	12					12					8						\$500	\$500
E	Project management including routine meetings	120					60											\$29,100	\$29,100
F	Funding assistance and O&M budget assistance	60					12											\$12,300	\$12,300
G	O&M Manual	4					24						40					\$10,300	\$10,300
H	Evaluate and design main to Roundabout	12					4					24						\$7,200	\$7,200
I	Water system computer modeling	4					16											\$2,720	\$2,720
J	Service exhibits and property owner meeting	4					8											\$1,680	\$1,680
	Basic Hourly																		
A	Design Review Meetings	6					12											\$150	\$2,730
B	Topographic survey and base mapping						16					320						\$1,400	\$39,600
C	Botisms											80						\$380	\$20,140
D	Permits																		
	Stormwater Construction Amendment						8												\$1,680
	Permit to Construct	4					8											\$2,400	\$2,400
	Wetlands						8											\$1,950	\$1,950
	Army Corps						8											\$5,000	\$5,000
	Stream Alteration						8											\$1,680	\$1,680
E	Act. 250	24					40					16						\$300	\$10,980
F	Environmental Document/FNSI	8					8			24								\$10,000	\$16,000
	Easement exhibits	4					8											\$200	\$2,000
	Total Hours	324	0	0	0	0	518	20	0	24	40	0	876	40	40	0			
	Percent of Total Hours	17%	0%	0%	0%	0%	28%	1%	0%	1%	2%	0%	47%	2%	2%	0%			
	Hourly Rate	\$180,000	\$150,000	\$150,000	\$135,000	\$125,000	\$64,750	\$2,300	\$110,000	\$110,000	\$100,000	\$85,000	\$85,000	\$3,400	\$85,000	\$70,000	\$58,000	\$4,090	\$280,000
	Subtotals	\$58,320	\$0	\$0	\$0	\$64,750	\$0	\$2,300	\$0	\$2,640	\$4,000	\$0	\$74,460	\$3,400	\$3,400	\$0	\$58,000	\$4,090	\$280,000

NOTES:

- 1 Hourly rates are valid through December 31, 2024.
- 2 Direct subconsultant costs, if any, are listed in the Sub Consult column. The Cost Per Task column includes an 8% markup on subconsultant direct costs.
- 3 This table is an estimate for planning purposes. Actual hours, staff assignments, and corresponding billing rates may vary from this estimate.



TOTAL FEES	\$280,000
TOTAL HOURS	1,882

RUS CERTIFICATION PAGE (MODIFIED from RUS BULLETIN 1780-26, EXHIBIT C)

DEC CERTIFICATION PAGE

PROJECT NAME: Water System Improvements
 PROJECT LOCATION: Killington, VT
 APPLICANT & LOAN/GRANT NUMBER: RF3-459

The Engineer and Owner hereby concur in the Funding Agency required revision to E-500 (2014). In addition, the Engineer certifies to the following:

All modifications required by DEC and RUS Bulletin 1780-26 have been made in accordance with the terms of the license agreement, which states in part that the Engineer "must plainly show all changes to the Standard EJDC Text, using 'Track Changes' (redline/strikeout), highlighting, or other means of clearly indicating additions and deletions." Such other means may include attachments indicating changes (e.g. Supplementary Conditions modifying the General Conditions).

SUMMARY OF ENGINEERING FEES

Note that the fees indicated on this table are only a summary and if there is a conflict with any provision of Exhibit C, the provisions there overrule the values listed on this table. Fees shown will not be exceeded without the concurrence of the Agency.

Description of Steps and Services	Fee Amount	Basis of Payment (Lump Sum or NTE)
1. Step 0 – Feasibility Study		LS/NTE
2. Step I – Preliminary Engineering		
a. Preliminary Engineering Report Services		LS/NTE
b. Environmental Information Document Services		LS/NTE
c. Additional Services included in Step I (include additional lines and itemize each item separately)		LS/NTE
3. Step II – Final Design		
a. Basis of Final Design and Final Design Plans and Contract Documents Contracts 1-3B	\$251,000	LS/NTE
b. Hourly Services Contracts 1-3B	\$32,000	
c. Additional Services included in Step II (include additional lines): Source Development	\$241,000	LS/NTE
d. Contract 4 Lump Sum	\$103,000	LS
e. Contract 4 Hourly	\$163,300	NTE
f. Contracts 5-7 Lump Sum	\$172,500	LS
g. Contracts 5-7 Hourly	\$107,500	NTE
4. Step III		
a. Bid Phase Services	\$36,000	LS
b. Construction Phase Services	\$585,000	LS
c. Resident Project Representative Services	\$549,588	NTE
d. Post Construction Phase Services	\$5,965	LS
e. Additional Services included in Step III (include additional lines)	\$133,447	LS/NTE
5. Total Engineering Costs	\$2,370,000	
6. Construction Costs		
a. Contract 1-3A	\$19,380,850	
b. Small Purchase		
c. Additional Items (include additional lines)		
7. Total Project Cost (Contract 1-3A)	\$23,700,000	
8. Total Project Cost (Contract 4)	\$10,460,000	
9. Total Project Cost (Contract 5-7)	\$8,250,000	
10. Total Bond Amount	\$47,000,000	

SCOPE OF SERVICES

The scope of services can be found in the following pages of the contract: 23-30

PROGRESS MEETING AND DELIVERABLES

DEC places funding holds on projects at the 30%, 60%, and 90% of engineering Step I & II (planning and final design) services pending a project meeting and deliverables. Holds may be negotiated to add or delete holds based on the needs of the project. This contract involves the following Step ___ deliverables and meetings:

Percent Complete	Approximate Meeting Schedule	Deliverables
30%		
60%		
90%		
Final		

Any adjustments to engineering fees or changes to maximum estimated values must be approved by the Agency and must include a table of what specific category or categories of fees are being changed, what fees were before and are after the change, and the resulting total fee.

Dufresne Group

Engineer Date

Name and Title

Town of Killington

Owner Date

Name and Title

Agency Concurrence:

As lender or insurer of funds to defray the costs of this Contract, and without liability for any payments thereunder, the Agency hereby concurs in the form, content, and execution of this Agreement.

Agency Representative Date

Name and Title Last Revised: 3/26/19