EVERSOURCE

Project Approval Form

| | |
|---|---|
| **Project Title:** New Customer Load on [redacted] Bristol | **Project Number:** [redacted] |
| **Date Prepared:** 10/24/2023 | **Company:** Eversource CT |
| **Organization:** Distribution Engineering | **Project Category:** New Customer-ED |
| **Project Initiator:** [redacted] | **Project Type:** Specific |
| **Initiating Organization:** Distribution | **Capital Investment part of original Op Plan:** Yes |
| **Project Manager:** [redacted] | **Emergency Related Request?** No |
| **Project Sponsor:** [redacted] | **Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant) |
| **Required in service date:** 6/1/2024 | |
| **Total Capital Request:** $1,642.2K ($231.4K reimbursable) | **Authorization Type:** Full Funding |

# 1. Executive Summary

The City of Bristol constructed a new road named Hope St which extends from North Main St to Riverside Ave, near the [redacted] substation. The existing easement and duct bank with three circuits needs to be lowered or relocated to alleviate the conflict with the city's design. With the location of the current duct bank and condition of the fiber conduits, lowering the manholes and duct banks was not a feasible option.

Project [redacted] proposes relocation of the [redacted] circuits from the existing duct bank on [redacted] and installs [redacted] new ISG switchgear on an easement obtained from the city. The new switchgear will be installed at the intersection of [redacted] along with a new [redacted] to supply the new lots. In addition, [redacted] sections of PILC (Paper Insulated Lead Cable) on the [redacted] will be replaced to supply the new switchgear and increase the circuit's rating.

The city of Bristol will install the new duct bank containing [redacted] 5-inch conduits on [redacted], and will bear the cost to relocate the [redacted] from the existing duct bank to a duct bank on Riverside Ave. As part of an agreement with the city in 2019, Eversource agreed to pay for the relocation [redacted] of the circuits out of the existing duct bank since both feeders would need to be extended in the [redacted] duct bank to feed the new switchgear.

The City of Bristol installed the new UG structures on [redacted], and the company has relocated the [redacted] proposed circuits. The remaining work is the switchgear installation.

On March 24, 2022, the project's Partial Funding was approved for $1,250K. The Full Funding amount is $1,642.2K. The difference is $392.2K, due in most part to the use of legacy units which do not account for increased cost and labor, (an increase of ~$375K) and a scope change, (an increase of ~$60K).

The scope change was due to a City of Bristol request. After a customer purchased the lot adjoining the switchgear easement area, the City and the customer wanted the switchgear location relocated. The City gave the company a new easement, will install the new UG structures, and bear the cost for the addition cable required. The City wants to roll the switchgear relocation work in with the new parking garage service work.

## 2. Project Cost Summary

Note: Dollar values are in thousands.

| Capital Costs | 2022 ITD | 2023 | 2024 | Total |
|---|---|---|---|---|
| Internal Labor and Construction Equipment | 25.2 | 3.3 | 35.5 | 63.9 |
| Outside Services | 145.0 | 12.9 | 174.7 | 332.6 |
| Materials | 426.3 | 0.0 | 156.6 | 582.9 |
| Removals | 26.2 | 0.7 | 18.9 | 45.7 |
| Risk and Contingency | 0.0 | 0.0 | 63.8 | 63.8 |
| Other | 0.0 | 0.0 | 0.0 | 0.0 |
| **Subtotal** | **622.6** | **16.8** | **449.5** | **1,089.0** |

| Indirect Capital Costs | 2022 ITD | 2023 | 2024 | |
|---|---|---|---|---|
| Indirect/Overheads (including benefits) | 223.9 | 7.1 | 251.9 | 483.0 |
| Capitalized interest or AFUDC, if any | 57.0 | 13.2 | 0.0 | 70.3 |
| **Subtotal** | **281.0** | **20.4** | **251.9** | **553.3** |
| | | | | |
| **Total Capital Costs (Gross)** | **903.6** | **37.2** | **701.4** | **1,642.2** |
| Less Total Customer Contribution | **(231.4)** | **0.0** | **0.0** | **(231.4)** |
| **Project Costs (Net of Reimbursement)** | **672.2** | **37.2** | **701.4** | **1,410.8** |

Explain unique payment provisions, if applicable:

# 3. Technical Justification

## Background, Project Need/Justification, and Project Scope

### a. Background

In the past, whenever cable work was required in this duct bank, the circuit was relocated from this duct bank to the underground structures in the city right way. There are three circuits that remain in the duct bank where the new service is proposed.

### b. Project Need

The City of Bristol has requested Eversource to lower a [redacted] conduit duct bank that conflicts with the location for a proposed new street. The proposal is to relocate the three circuits in the duct bank located on private property to the proposed new underground structures on Hope Street and in the underground structures on Riverside Avenue. The company requested the city of Bristol to install a [redacted] conduit duct bank structure on Hope Street to enable Eversource to supply the new customer load and have a duct bank to relocate [redacted] circuits into. The [redacted] would supply the proposed switchgear and the new customer's load.

### c. Project Scope

On [redacted], the City of Bristol will install all the new UG structures.

[redacted]



## 4. Alternatives Considered

**Project Option Comparison**

| Design Criteria | Option | |
|---|---|---|
| | 1 – Create New Circuit | 2 – Replace existing duct bank in easement area. |
| Normal loads < 80% of UG rating | X | X |
| Normal loads < 90% of OH rating | X | |
| Contingent loads < 100% of rating | | |
| Get out of a bad location easement area. | X | |
| Avoid tying plastic conduits to Fiber ducts nightmare. | X | |
| Eliminate future access to easement area nightmare issues. | X | |
| Authorization Type | Full | Partial |
| Capital Cost | $1,642.2K | $1,250K |

| | | |
|---|---|---|
| Expense Cost | $79.2K | $25K |
| Total Cost | $1,721.4K | $1,1275K |
| Total Cost / MVA added | $/MVA | $/MVA |
| Total Cost / CM Saved | $/CM | $/CM |
| Total Cost / CI Saved | $/CI | $/CI |
| Preferred option | X | |

Option One

This is the preferred option for the following reasons: The existing [redacted] conduit duct bank is old and made of fiber ducts. Excavating near the old duct bank would compromise the integrity of the existing duct bank with [redacted] get-a-way feeders still energized within the duct bank. Manholes at each end of the relocation area would need to be enlarged as they already have [redacted] conduits entering the manhole wall. Wall space would be limited to add an additional conduit. The new seven lot development in an underground area requires a new duct bank to be installed on the new street. Maintaining the easement for the [redacted] conduit duct bank made no sense with a new duct bank going on the new street (Hope Street.) Plus, the company was already moving the circuits in this duct bank to the duct bank in the City's Street ROW.

Option Two

This alternative is to lower the [redacted] conduit fiber duct bank and replace [redacted] circuits in the duct bank verse relocating [redacted] circuits into the city right of way. This option was not chosen for the following reasons.

1. Lowering a fiber conduit duct bank is exceedingly difficult and excavation under the old fiber duct bank could compromise reliability.
2. Making room in the manhole wall for [redacted] new conduits with [redacted] existing conduits is also very costly.
3. The [redacted] circuits are in an easement area where the company is getting out of whenever a circuit fails.
4. The City of Bristol is installing a [redacted]-conduit duct bank underground structure on [redacted].
5. The [redacted] circuits need to be installed in the new [redacted] underground structures to supply the new switchgear.

## 5. Project Schedule

Add any additional milestones that are pertinent to the project.

| Milestone/Phase Name | Estimated Date |
|---|---|
| Partial Approval | 3/24/2022 |
| 100% Detailed Engineering Completion | 10/1/02023 |
| Fully Funded | 12/31/2023 |
| Construction Start | 6/1/2018 |
| In Service Date | 6/1/2024 |

## 6. Regulatory Decisions

## 7. Codes and Standards

# 8. Risk and Contingencies

Contingencies:

Risk Mitigation:

| Risk Event | Risk Horizon | Likelihood of Occurrence | Risk Mitigation |
|---|---|---|---|
| Actual cost is higher than estimated due to scope changes. | 2022/2023/2024 | Medium | Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues. |
| Customer Permission / Siting Council / Municipal approvals | 2022/2023/2024 | Medium | Design to minimize customer impact. Project Preplanning and customer/community outreach. |
| Internal construction resources not available to perform the work. | 2022/2023/2024 | Medium | Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost. |
| Internal engineering resources not available to perform the work. | 2022/2023/2024 | Medium | Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost. |
| Materials Shortage or long lead times | 2022/2023/2024 | Medium | Pre-order long lead time material; minimize the use of non-standard and non-stocked material. |
| Storm delays | 2022/2023/2024 | Medium | If storm activity delays work, we may be forced to use external resources. |
| System abnormal configuration | 2022/2023/2024 | Medium | Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system is abnormal for extended periods. |

| | | | |
|---|---|---|---|
| Technological risks involving integration of new technology | 2022/2023/2024 | Medium | Before use of new technology ensure support of standards and manufacturer. Schedule projects to accommodate for extra time or ensure new technology is not on the critical path. |
| Wetlands / Environmentally sensitive area | 2022/2023/2024 | Medium | Use of mats and specialty equipment, only work during certain times of the year. |

## 9. References

| References |
|---|
| 1. |
| 2. |
| 3. |
| 4. |
| 5. |

## 10. Attachments (One Line Diagrams, Images, etc.)

| Attachment | Included in Submittal? |
|---|---|
| A. Cost Estimate | *YES* |
| B. P6 Schedule | *NO* |
| C. Geographic Map | *YES* |
| D. System and Station One-Lines | *YES* |
| E. Detail Letter Agreement Letters. | *YES* |
| F. Partial PAF | *YES* |

**A. Cost Estimate.**

**Budget Summary - Preferred Option** Relocate [redacted]

**2019**

| ID | Title | Status | Rev | Contingency | Expenditure Amount | Net Estimate |
|---|---|---|---|---|---|---|
| 6 | Install new Innovative switcgear | Prelim | 0 | 8% | $573,046 | $573,046 |
| 3 | Relocate [redacted]. | Prelim | 0 | 8% | $100,489 | ($15,891) |
| 2 | Relocate [redacted] Duct Bank | Prelim | 0 | 8% | $342,476 | $342,476 |
| 1 | Remove Cables | Prelim | 0 | 8% | $70,353 | $70,353 |
| | | | | 2019 Total: | $1,086,364 | $969,984 |

**2022**

| ID | Title | Status | Rev | Contingency | Expenditure Amount | Net Estimate |
|---|---|---|---|---|---|---|
| 9 | [redacted] Getaway UG Cable Replacement | Prelim | 0 | 24% | $120,984 | $120,984 |
| | | | | 2022 Total: | $120,984 | $120,984 |

**2024**

| ID | Title | Status | Rev | Contingency | Expenditure Amount | Net Estimate |
|---|---|---|---|---|---|---|
| 8 | Additonal Cable for Switchgear Relocatio | Prelim | 0 | 40% | $67,469 | $0 |
| | | | | [redacted] Total: | $67,469 | $0 |
| | | | | Total Project: | $1,274,817 | $1,090,968 |

EVERSOURCE

# Project Approval Form

Segment

CD00992-01

## General Information

| | | | | | |
|---|---|---|---|---|---|
| **Segment:** | 1 - Remove Cables | | | **Status:** | Prelim Design Approved |
| **Segment Type:** | RELOCATION - UG | **Town:** | BRISTOL | **Budget Year:** | 2019 |
| **Work Type:** | Other | **Trimming** | ☐ | **In Service Date:** | 12/31/2019 |
| **Description:** | Remove Cables from duct bank that will be abandoned. | | | | |

## Itemized Work List

| ID | Major Grid | Minor Grid | Description of Work to be Performed |
|---|---|---|---|
| 1 | G07-1 | H3 | Remove the [redacted]. |
| 2 | G07-1 | H3 | Remove [redacted] Loop Cables |
| 3 | G07-1 | H3 | Remove [redacted] Cables. |
| 4 | G07-1 | H3 | Remove [redacted] Cables. |
| 5 | G07-1 | H3 | Remove [redacted] Cables. |

## Estimate

| | Preliminary Estimate Summary | Construction (ACT) Estimate Summary | Variance | |
|---|---|---|---|---|
| **Revision Number:** | 1 | 0 | | |
| **Contingency:** | 24.00% | 7.50% | | |
| **SubTotal:** | $18,400 | $65,445 | $47,045 | 256% |
| **Contingency Amount:** | $4,416 | $4,908 | $492 | 11% |
| **Estimate:** | $22,816 | $70,353 | $47,537 | 208% |
| **Reimbursement:** | $0 | $0 | $0 | |
| **Net Amount:** | **$22,816** | **$70,353** | **$47,537** | **208%** |
| **Description:** | Remove Cables between [redacted]. | ACT Estimate | | |

| Item Description | CU | | Amount |
|---|---|---|---|
| UG CABLE<br>UG - Cable Removal - all cables | 16-UG117 | [redacted] | $5,200.00 |
| UG CABLE<br>UG - Cable Removal - all cables | 16-UG117 | | $5,200.00 |
| UG CABLE<br>UG - Cable Removal - all cables | 16-UG117 | | $4,000.00 |
| UG CABLE<br>UG - Cable Removal - all cables | 16-UG117 | | $4,000.00 |

EVERSOURCE

# Project Approval Form

Segment

CD00992-02

## General Information

Segment: 2 - Relocate [redacted] in New Raod Duct Ban
Status: Prelim Design Approved
Segment Type: RELOCATION - UG
Town: BRISTOL
Budget Year: 2019
Work Type: Other
Trimming ☐
In Service Date: 12/31/2019
Description: Relocate [redacted] circuits in New Raod Duct Bank Structure.

## Itemized Work List

| ID | Major Grid | Minor Grid | Description of Work to be Performed |
|---|---|---|---|

## Estimate

| | Preliminary Estimate Summary | Construction (ACT) Estimate Summary | Variance | |
|---|---|---|---|---|
| Revision Number: | 1 | 0 | | |
| Contingency: | 24.00% | 7.50% | | |
| SubTotal: | $221,760 | $318,582 | $96,822 | 44% |
| Contingency Amount: | $53,222 | $23,894 | ($29,329) | 55% |
| Estimate: | $274,982 | $342,476 | $67,493 | 25% |
| Reimbursement: | $0 | $0 | $0 | |
| Net Amount: | **$274,982** | **$342,476** | **$67,493** | **25%** |
| Description: | Relocate 11K41 and 11K44 Circuits in the New Road. | ACT Estimate | | |

| Item Description | CU | | Amount |
|---|---|---|---|
| UG CABLE [redacted] | 16-UG114B | [redacted] | $29,760.00 |
| UG CABLE [redacted] | 16-UG114B | | $57,120.00 |
| UG CABLE [redacted] | 16-UG114B | | $24,000.00 |
| UG CABLE [redacted] | 16-UG114B | | $29,760.00 |
| UG CABLE [redacted] | 16-UG114B | | $57,120.00 |
| UG CABLE [redacted] | 16-UG114B | | $24,000.00 |

EVERSOURCE

# Project Approval Form

Segment

CD00992-03

## General Information

Segment: 3 - Relocate [redacted] circuit.
Status: Prelim Design Approved
Segment Type: RELOCATION - UG
Town: BRISTOL
Budget Year: 2019
Work Type: Other
Trimming ☐
In Service Date: 12/31/2019
Description: Relocate [redacted] circuit.

## Itemized Work List

| ID | Major Grid | Minor Grid | Description of Work to be Performed |
|---|---|---|---|
| 1 | [redacted] | [redacted] | Relocate the [redacted]. |

## Estimate

| | Preliminary Estimate Summary | Construction (ACT) Estimate Summary | Variance | |
|---|---|---|---|---|
| Revision Number: | 1 | 0 | | |
| Contingency: | 24.00% | 7.50% | | |
| SubTotal: | $116,681 | $93,478 | ($23,203) | 20% |
| Contingency Amount: | $28,003 | $7,011 | ($20,993) | 75% |
| Estimate: | $144,684 | $100,489 | ($44,195) | 31% |
| Reimbursement: | $130,216 | $116,380 | ($13,836) | 11% |
| **Net Amount:** | **$14,468** | **($15,891)** | **($30,360)** | **210%** |

| Description: Item Description | ACT Estimate CU | $ / Per | Qty | Amount |
|---|---|---|---|---|
| UG CABLE [redacted] | 16-UG114B | [redacted] | | $17,280.00 |
| UG CABLE [redacted] | 16-UG114B | | | $45,600.00 |
| UG CABLE [redacted] | 16-UG114 | | | $8,212.80 |
| UG CABLE [redacted] | 16-UG114 | | | $12,528.00 |
| UG CABLE [redacted] | 16-UG114 | | | $33,060.00 |

EVERSOURCE

# Project Approval Form

Segment

[redacted]-06

## General Information

| | | | | | |
|---|---|---|---|---|---|
| Segment: | 6 - Install new Innovative switcgear | | | Status: | Prelim Design Approved |
| Segment Type: | NEW SERVICE | Town: | BRISTOL | Budget Year: | 2019 |
| Work Type: | Other | Trimming | ☐ | In Service Date: | 12/31/2019 |
| Description: | | | | | |

## Itemized Work List

| ID | Major Grid | Minor Grid | Description of Work to be Performed |
|---|---|---|---|

## Estimate

| | Preliminary Estimate Summary | Construction (ACT) Estimate Summary | Variance | |
|---|---|---|---|---|
| Revision Number: | 2 | 0 | | |
| Contingency: | 24.00% | 7.50% | | |
| SubTotal: | $424,819 | $533,066 | $108,247 | 25% |
| Contingency Amount: | $101,957 | $39,980 | ($61,977) | 61% |
| Estimate: | $526,776 | $573,046 | $46,270 | 9% |
| Reimbursement: | $0 | $0 | $0 | |
| Net Amount: | **$526,776** | **$573,046** | **$46,270** | **9%** |

Description:

| Item Description | ACT Estimate CU | $ / Per | Qty | Amount |
|---|---|---|---|---|
| SWITCHGEAR [redacted] | 16-UG128 | [redacted] | | $359,923.20 |
| DB CABLE [redacted] | 16-UG113 | | | $53,760.00 |
| UG CABLE [redacted] | 16-UG114 | | | $11,136.00 |

EVERSOURCE

# Project Approval Form

Segment

CD00992-08

## General Information

Segment: 8 - Additonal Cable for Switchgear Relocatio
Status: Prelim Design Approved
Segment Type: NEW SERVICE
Town: BRISTOL
Budget Year: 2024
Work Type: Other
Trimming ☐
In Service Date: 6/1/2024
Description: Additional Work to accommodate the switchgear location changing. [redacted]
The switchgear will be installed [redacted]

## Itemized Work List

| ID | Major Grid | Minor Grid | Description of Work to be Performed |
|---|---|---|---|

## Estimate

Preliminary Estimate Summary

| | |
|---|---|
| Revision Number: | 0 |
| Contingency: | 40.00% |
| SubTotal: | $48,192 |
| Contingency Amount: | $19,277 |
| Estimate: | $67,469 |
| Reimbursement: | $67,469 |
| Net Amount: | $0 |

Description:

| Item Description | CU | $ / Per | Qty | Amount |
|---|---|---|---|---|
| UG CABLE [redacted] | 16-UG114B | [redacted] | | $19,680.00 |
| DB CABLE [redacted] | 16-UG113 | | | $7,392.00 |
| UG CABLE [redacted] | 16-UG114B | | | $21,120.00 |

EVERSOURCE

# Project Approval Form

Segment

CD00992-09

## General Information

Segment: 9 - [redacted] UG Cable Replacement
Status: Prelim Design Approved
Segment Type: NEW SERVICE
Town: BRISTOL
Budget Year: 2022
Work Type: BB-Reconductoring
Trimming ☐
In Service Date: 12/31/2023
Description: Replace the first sections [redacted] to increase the circuit's limiting factors.

## Itemized Work List

| ID | Major Grid | Minor Grid | Description of Work to be Performed |
|---|---|---|---|

## Estimate

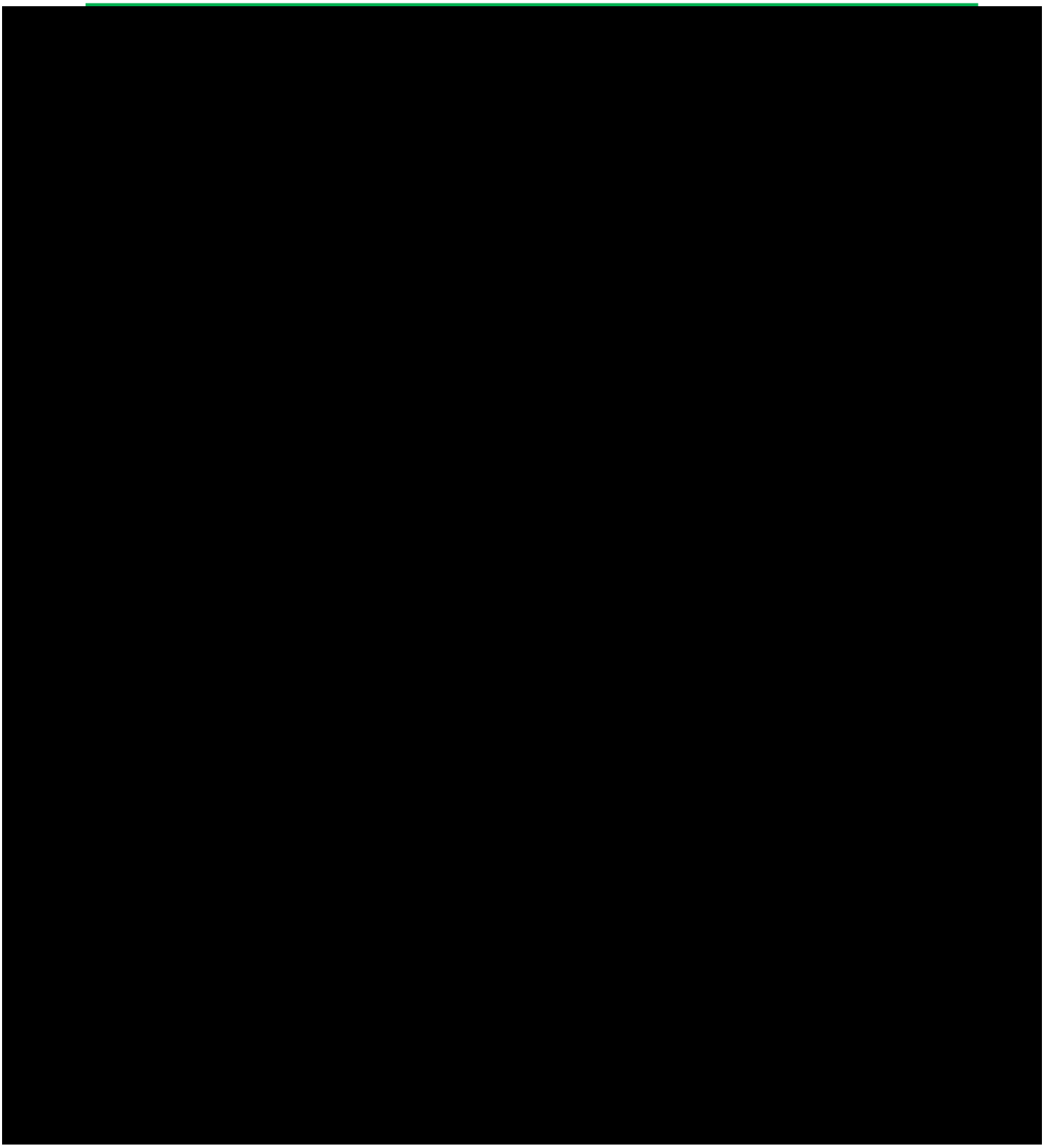
Preliminary Estimate Summary

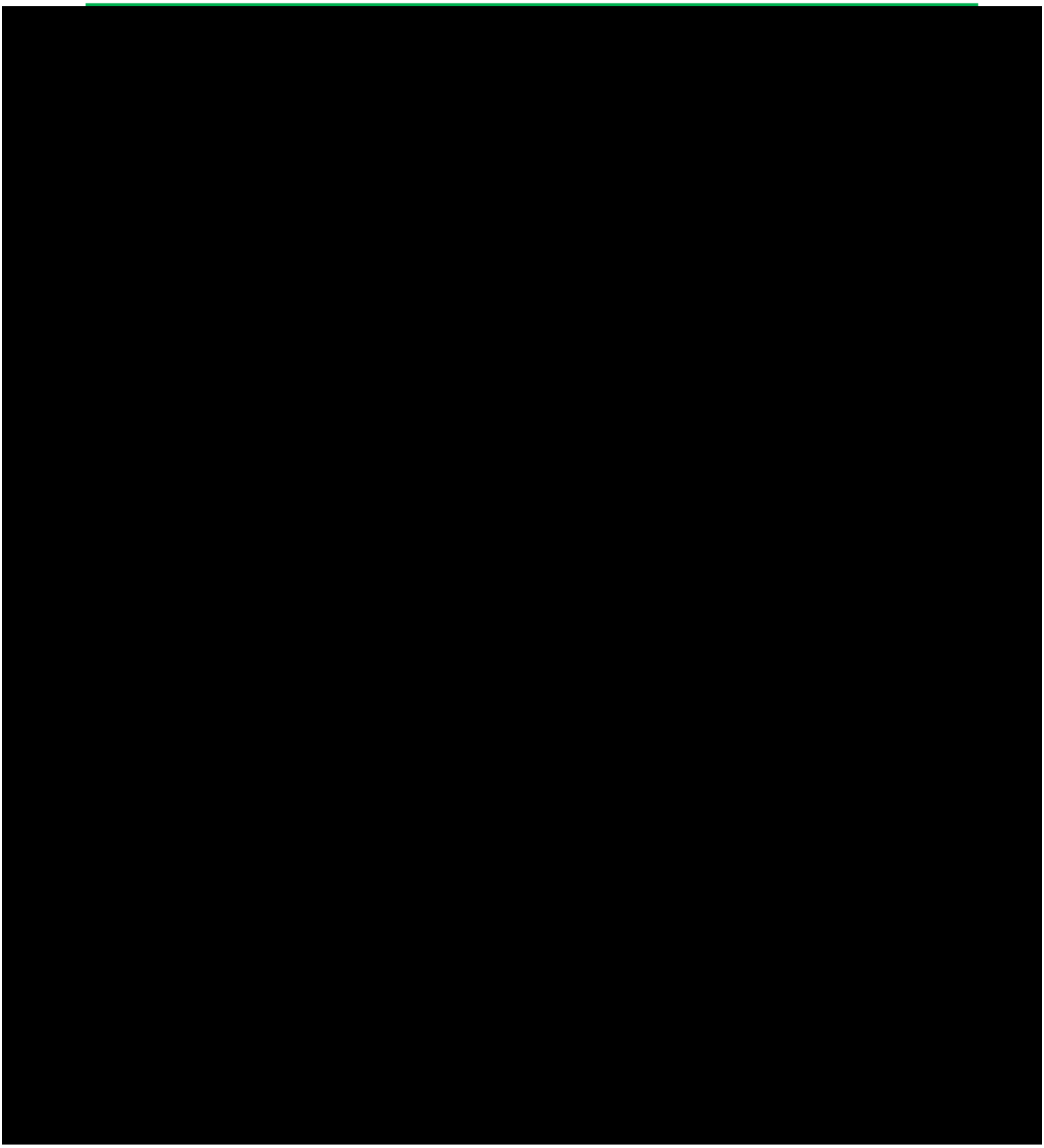
| | |
|---|---|
| Revision Number: | 0 |
| Contingency: | 24.00% |
| SubTotal: | $97,568 |
| Contingency Amount: | $23,416 |
| Estimate: | $120,984 |
| Reimbursement: | $0 |
| Net Amount: | **$120,984** |

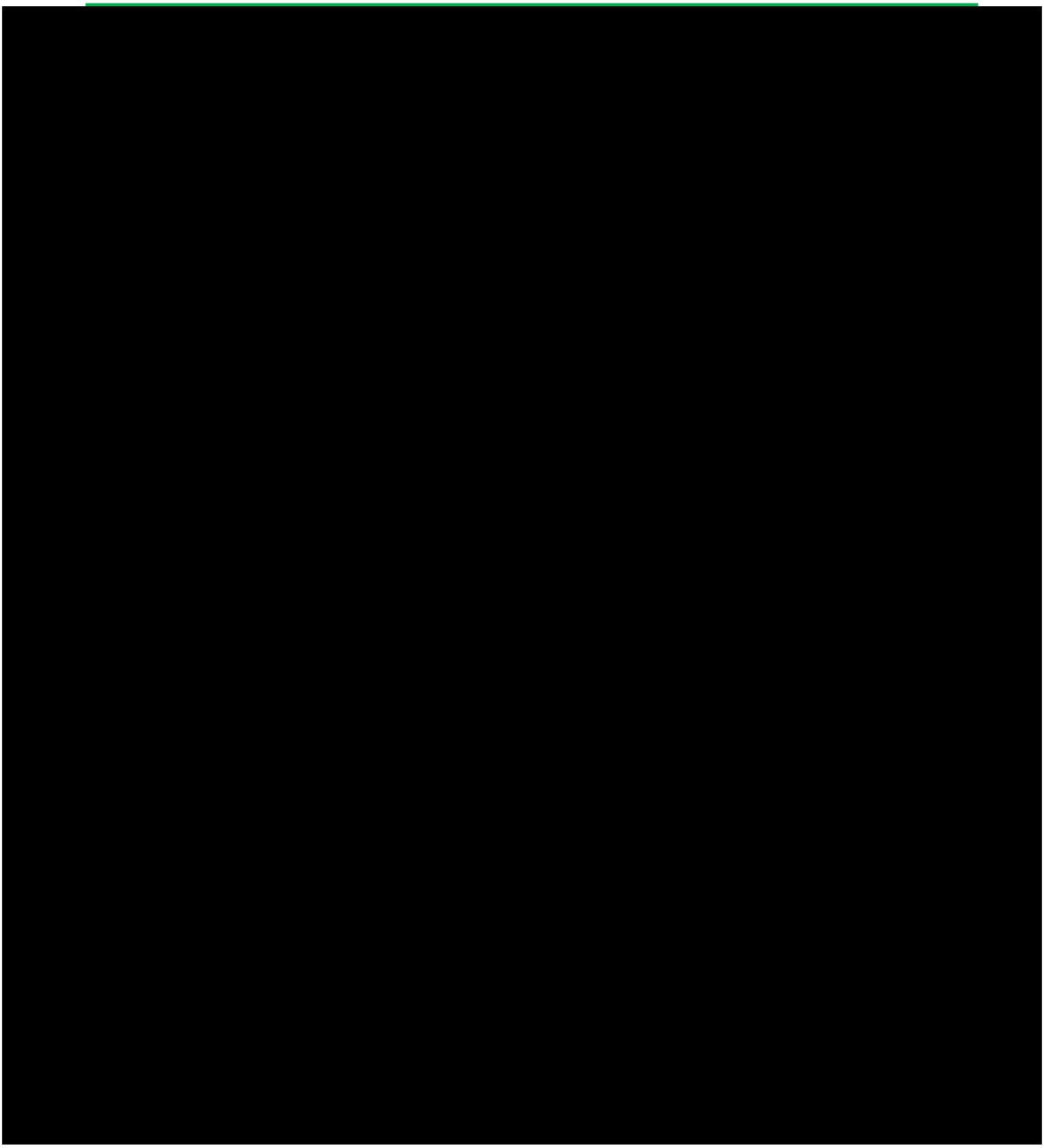
Description:

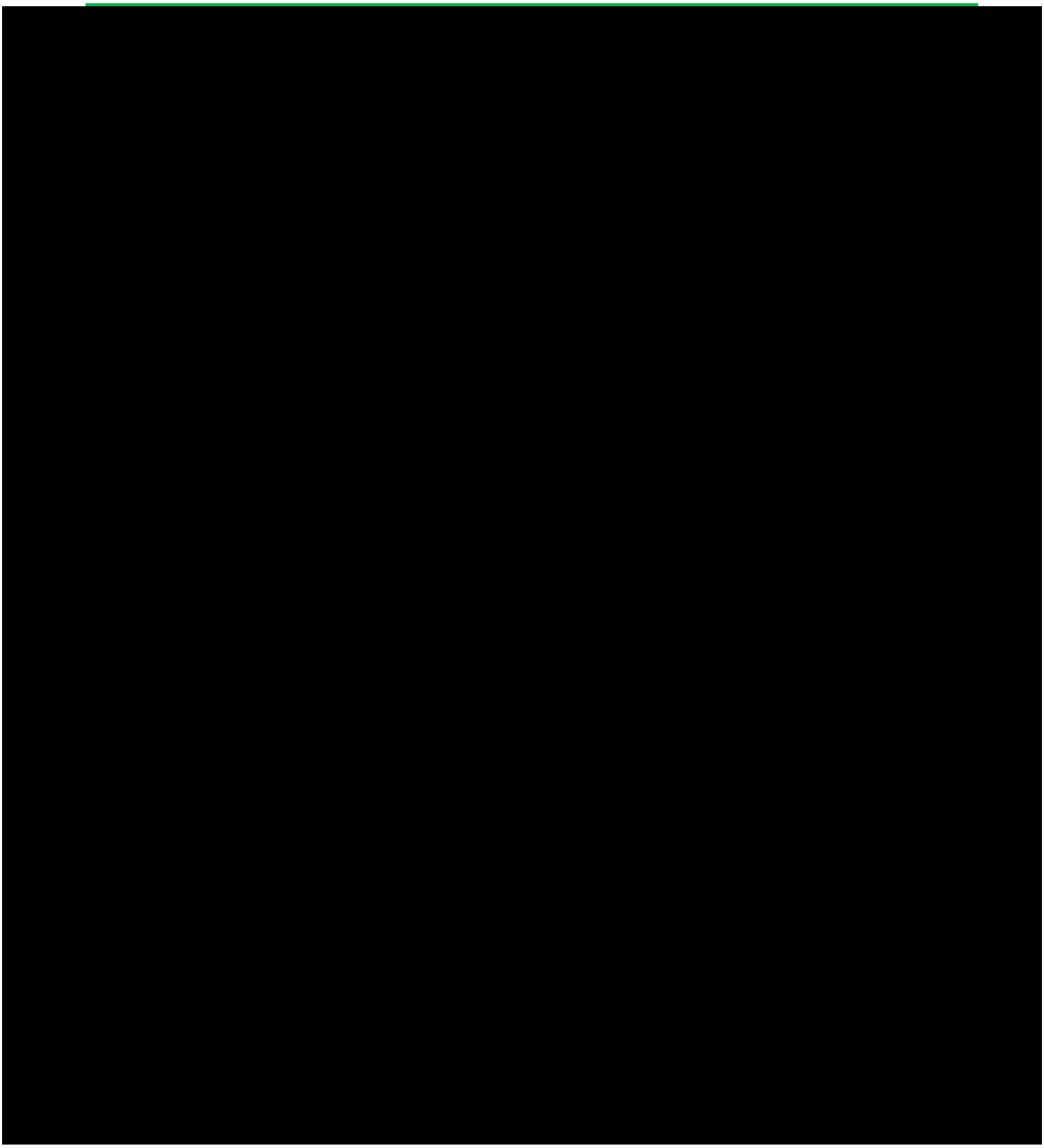
| Item Description | CU | $ / Per | Qty | Amount |
|---|---|---|---|---|
| TRAFFIC<br>OH/DB/UG - Traffic Control - Police Officer | 16-ALL18 | [redacted] | | $5,000.00 |
| UG CABLE<br>UG - Cable Removal - all cables | 16-UG117 | | | $15,960.00 |
| UG CABLE [redacted] | 16-UG114B | | | $21,792.00 |
| UG CABLE [redacted] | 16-UG114B | | | $54,816.00 |

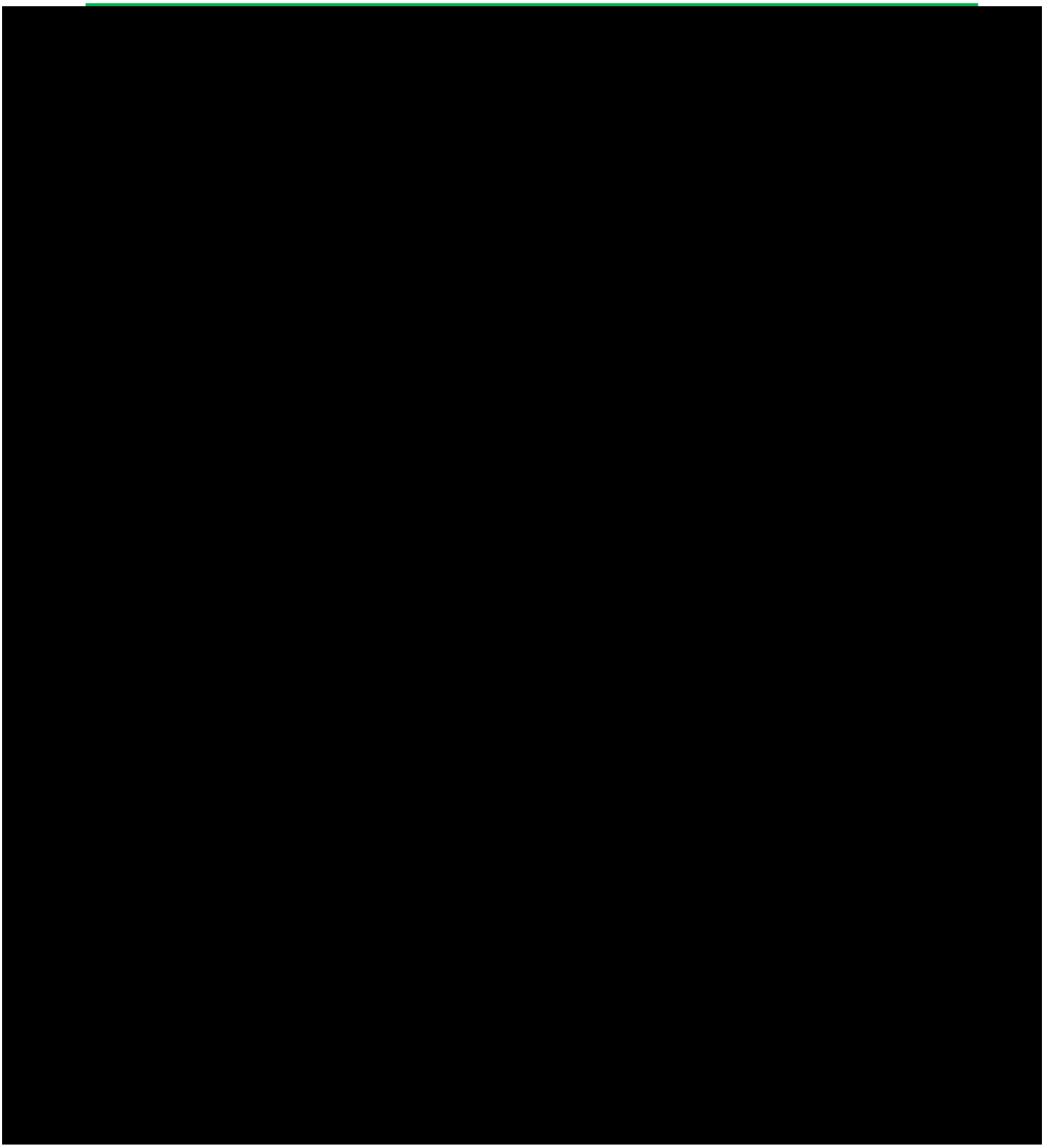
**C. Geographic Maps.**

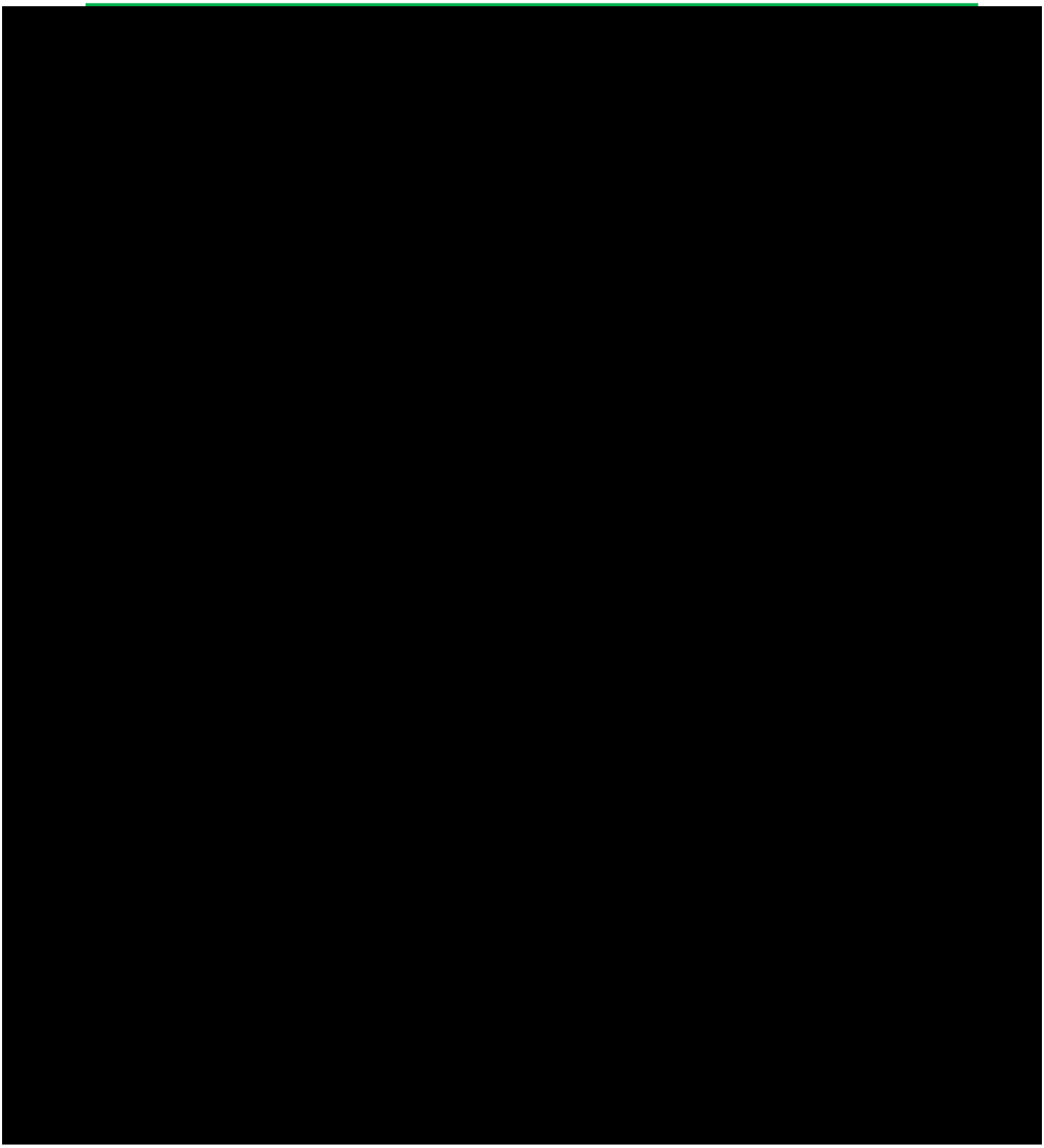












## E. Detail Letter Agreement Letters.

EVERSOURCE ENERGY

705 West Johnson Avenue
Cheshire, CT 06410

**March 19, 2019**

Mayor Ellen A. Zoppo-Sassu
City of Bristol
111 North Street
Bristol, CT 06010

Dear Customer:

Instead of requiring the City of Bristol (the "City") to bear the cost of lowering The Connecticut Light and Power Company's (Eversource's) duct bank currently located in [redacted] as shown on the map entitled "Compilation Plan Easements to be Acquired/Released Property of the City of Bristol Date: 12-26-2017 Rev B. RE [redacted] "Map #1"), a copy of Map #1 is attached, Eversource and the City have agreed to the following:

- Under work request # 3040876 Eversource will relocate its Bristol [redacted] rom the underground structures in said [redacted] to the public right of way known as Riverside Avenue; and the City will bear the entire cost of that relocation. (That cost will be equivalent to the cost to lower the existing duct bank.)
- Provided that the City first delivers to Eversource via warranty deed an easement in and to the roadway identified on Map #2 (as defined below) as the New Road (such easement shall be in form and substance as well as recorded all in accordance with Eversource's standard easement acquisition policy and requirements), Eversource will then relocate the [redacted] ircuits from said [redacted] to the New Road; and Eversource will bear the costs of that relocation.
- The City will grant to Eversource via warranty deed an easement at the new switchgear location on the corner of North Main Street and the New Road as shown on the Easement Map (preliminary-for review only) entitled "Depicting Easement Area to be Granted to The Connecticut Light and Power Company d/b/a Eversource Energy Across the Property of THE CITY OF BRISTOL and THE BRISTOL HOSPITAL, INCORPORATED [redacted] Connecticut Date; February 14, 2019Revision Date 03-04-2019 CL&P File No. W18166 Project No. [redacted] "Map #2"), a copy of Map #2 is attached Said easement shall be in form and substance as well as recorded all in accordance with said policy and requirements.
- Upon completion, to Eversource's sole and absolute satisfaction, of all the City's obligations found in and relating to this letter including, without limitation, such completion of the above three items and upon the City's completion of its dedication of New Road as a public right-of-way/city road , Eversource will agree to release [redacted].

The City's cost for Eversource to relocate the [redacted] circuit from the City's [redacted] is projected to be $126,915.14. Please submit a check payable to Eversource for the total amount.

The projected cost of the relocation is valid for 90 days and assumes average working conditions. Additional charges may apply if we encounter unusual conditions (rock, water, frost, etc.). All tree trimming, trenching, conduit and blasting on private property are to be performed by the City at the City's sole cost.

To enable Eversource to schedule the work, please detach the bottom portion of this letter and return it in the enclosed envelope with your nonrefundable payment. Your payment in good and collectible funds authorizes Eversource to relocate electric service at the above location and acknowledges your agreement with the terms and conditions stated in this letter.

EVERSOURCE ENERGY

705 West Johnson Avenue
Cheshire, CT 06410

**March 19, 2019**

Facilities installed by Eversource will remain the property of Eversource. This payment will not entitle you to ownership interest or rights to Eversource facilities.

If you should have any questions, please contact [redacted]

Sincerely,

[redacted]
Manager,
Distribution Engineering

*Please cut at dotted line and return with your **mail** in payment.*

*Payment Options:*

**Credit/Debit Card or ACH (echeck) payments (convenience fee required):** Call the Electric Service Support Center, (888)544-4826

**US Mail Payments:** Eversource - Electric Service Support Center, PO Box 2985, Hartford CT 06104-2985

**Overnight/Express Payments:** Eversource - Electric Service Support Center, 107 Selden St., Berlin CT 06037 (Monday-Friday)

| ENT | CCC | Work Order | Cost Ele | LOB | FERC | STORMS WR # | |
|---|---|---|---|---|---|---|---|
| 11 | 15D | 2M724405 | A68 | | | 3040876 | $ 116,380.00 |
| 11 | 310 | 1864W011 | A68 | 11100 | 1864W0 | | $ 10,535.14 |
| ***Job Address:*** | | ***Reimbursement Estimate, Job Type ESNBS*** | | | | **Total Due** | **$126,915.14** |

**Riverside Avene, Bristol CT**

***Customer Billed***
**City of Bristol**
**111 North Street**
**Bristol , CT 06010**

EVERSOURCE ENERGY

705 West Johnson Avenue
Cheshire, CT 06410

**March 24, 2023**

The City of Bristol
Mayor Jeffrey Caggiano
3rd Floor
111 North Street
Bristol, CT 06010

Dear Customer:

Instead of installing the proposed switchgear in a designated easement area at the corner of [redacted] install the switchgear on a new easement area per the City of Bristol 's (the "City") request. The City will bear additional cable installation and removal costs of relocating the switchgear in the new easement area on the City's municipal parking lot off Hope Street since the switchgear will be further from the underground facilities on Hope Street. The Connecticut Light and Power Company's (Eversource's) currently has a switchgear easement at the corner of [redacted] Eversource and the City have agreed to the following work that the City will be responsible for and bear the cost:

[redacted]

The City will provide Eversource an easement for the new switchgear location. Once the City records Eversource the new easement and pays the cable work costs listed above, Eversource will relinquish the easement area around the switchgear manhole numbers [redacted]

The City's cost for Eversource to install the switchgear at the new easement location is $104,479.77. Please submit a check payable to Eversource for the total amount.

The projected cost of the relocation is valid for 90 days and assumes average working conditions. Additional charges may apply if we encounter unusual conditions (rock, water, frost, etc.). All tree trimming, trenching, conduit and blasting on private property are to be performed by the City at the City's sole cost.

EVERSOURCE ENERGY

705 West Johnson Avenue
Cheshire, CT 06410

**March 24, 2023**

To enable Eversource to schedule the work, please detach the bottom portion of this letter and return it in the enclosed envelope with your nonrefundable payment. Your payment in good and collectible funds authorizes Eversource to relocate electric service at the above location and acknowledges your agreement with the terms and conditions stated in this letter.

Facilities installed by Eversource will remain the property of Eversource. This payment will not entitle you to ownership interest or rights to Eversource facilities.

If you should have any questions, please contact [redacted]

Sincerely,

Steven Lamontagne

Steven Lamontagne
Manager
Distribution Engineering

*Please cut at dotted line and return with your mail in payment.*

Payment Options:

**Credit/Debit Card or ACH (echeck) payments (convenience fee required):** Call the Electric Service Support Center, (888)544-4826
**US Mail Payments:** Eversource - Electric Service Support Center, PO Box 2985, Hartford CT 06104-2985
**Overnight/Express Payments:** Eversource - Electric Service Support Center, 107 Selden St., Berlin CT 06037 (Monday-Friday)

| ENT | CCC | WAMFWO | Cost Ele | LOB | FERC | MAXIMO WO # | |
|---|---|---|---|---|---|---|---|
| 11 | 2AD | 80354165 | A68 | | | 11172618 | $ 97,015.90 |
| 11 | 310 | 1864W011 | A68 | 11100 | | 1864W0 | $ 7,463.87 |
| **Job Address:** | **Reimbursement Estimate, Job Type RLOCCI-SD** | | | | | Total Due | $ 104,479.77 |

Customer Billed
The City of Bristol
Mayor Jeffrey Caggiano
3rd Floor
111 North Street
Bristol, CT 06010
February 16, 2023

# Operations Project Authorization Form

| | |
|---|---|
| **Project Title:** New Customer Load on Hope St Bristol | **Project Number:** [redacted] |
| **Date Prepared:** 03/16/2022 | **Company:** Eversource CT |
| **Organization:** Electric Field Operations | **Class(es) of Plant:** D Line |
| **Project Initiator:** [redacted] | **Project Category:** New Service |
| **Project Manager:** [redacted] | **Project Type:** Specific |
| **Project Sponsor:** [redacted] | **Capital Investment part of original Operating Plan:** Yes |
| **Estimated in service date:** 12/31/2023 | **Emergency Related Request?** No |
| **Eng./Constr. Resources Budgeted?** Yes | **Facility Type** (check all that apply): ☐ PTF ☐ [redacted] PTF ☒ Distribution |
| **Total Gross Capital Request:** $1,253K ($154K) | **Authorization Type:** Initial Funding |

## Executive Summary

The City of Bristol constructed a new road named Hope St which extends from [redacted], near the Bristol [redacted] substation. The existing easement and duct bank with [redacted] circuits needs to be lowered or relocated to alleviate the conflict with the city's design. With the location of the current duct bank and condition of the fiber conduits, lowering the manholes and duct banks was not a feasible option.

Project [redacted] proposes relocation of the [redacted] circuits from the existing duct bank on [redacted] and installs [redacted] new ISG switchgear on an easement obtained from the city. The new switchgear will be installed at the intersection of Main St and Hope St along with a new 4/0 AL EPR loop to supply the new lots. In addition, [redacted] will be replaced to supply the new switchgear and increase the circuit's rating.

The city of Bristol will install the new duct bank containing [redacted] 5-inch conduits on Hope Street, and will bear the cost to relocate the [redacted] from the existing duct bank to a duct bank on [redacted]. As part of an agreement with the city in 2019, Eversource agreed to pay for the relocation of [redacted] the circuits out of the existing duct bank since [redacted] feeders would need to be extended in the new Hope St duct bank to feed the new switchgear.

As of 5/22, the City of Bristol has built a new duct bank, and the company relocated [redacted] feeders.

## Project Costs Summary

*Note: Dollar values are in thousands*

| Capital Costs | Previous Years | Year 2022 | Year 2023 | Total |
|---|---|---|---|---|
| **Direct Capital Costs** | | | | |
| Internal Labor and Construction Equipment | $82 | $13 | $10 | $104 |
| Outside Services | $277 | $43 | $34 | $353 |
| Materials | $225 | $35 | $27 | $287 |
| Removals | $34 | $5 | $4 | $43 |
| Risk and Contingency | ($88) | ($14) | ($11) | ($112) |
| Other | $0 | $0 | $0 | $0 |
| Subtotal | **$529** | **$82** | **$64** | **$676** |
| **Indirect Capital Costs** | **Year 1** | **Year 2** | **Year 3+** | **Total** |
| Indirect/Overheads (including benefits) | $431 | $70 | $54 | $555 |
| Capitalized interest or AFUDC, if any | $18 | $3 | $2 | $23 |
| Subtotal | **$449** | **$72** | **$57** | **$578** |
| Total Capital Costs (Gross) | **$978** | **$155** | **$121** | **$1,253** |
| Total Customer Contribution | **($154)** | **$0** | **$0** | **($154)** |
| **Total Capital Project Costs** | **$824** | **$158** | **$123** | **$1,105** |

## Technical Justification:

### Project Need, Objective, and Justification

The City of Bristol has requested Eversource to lower a [redacted] conduit duct bank that conflicts with the location for a proposed new street. The proposal is to relocate the [redacted] circuits in the duct bank located on private property to the proposed new underground structures on [redacted] and in the underground structures on [redacted]. The city of Bristol is requested to install a [redacted] conduit duct bank structure on [redacted] to enable Eversource to supply the new customer load and have a duct bank to relocate [redacted] circuits into. The Bristol [redacted] would supply the proposed switchgear and the new customer's load.

## Project Scope

On [redacted], the City of Bristol will install all the new UG structures.



## Background

In the past, whenever cable work was required in this duct bank, the circuit was relocated from this duct bank to the underground structures in the city right way. There are [redacted] that remain in the duct bank.

## Alternatives Considered:

*Were alternative solutions considered/applicable? Include any cost/benefit analysis.*

Alternatives were considered (please describe below)

The only alternative would be to build another duct bank within the existing easement area, but this option was not selected for the following reasons:

- The existing duct bank is old and made of fiber ducts. Excavating near the old duct bank would compromise the integrity of the existing duct bank with [redacted] get-a-way feeders still energized within the duct bank.
- Manholes at each end of the relocation area would need to be enlarged as they already have [redacted] conduits entering the manhole wall. Wall space would be limited to add an additional [redacted] conduits.
- The new duct bank proposed by the city are located within the town road providing easy access

to the manholes. Rebuilding the duct bank within the easement area may have been difficult to access in the future depending on what is constructed at this site.

**Regulatory Approvals:**

*Are Regulatory body approvals needed for the project?*

No

If yes, provide detailed regulatory approvals.

## Project Schedule

| Milestone/Phase Name | Estimated Date |
|---|---|
| 80% Engineering Completion | 12/31/2017 |
| 100% Engineering Completion | 6/1/2022 |
| Construction Start | 6/1/2018 |
| Install switchgear | 12/31/2022 |
| Upgrade [redacted] | 12/31/2023 |

**Risks and Risk Mitigation Plans**

| Risk Event | Risk Horizon | Likelihood of Occurrence | Risk Mitigation |
|---|---|---|---|
| Actual cost higher than estimated due to scope changes. | 2022/2023 | Medium | Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues. |
| Customer Permission / Siting Council / Municipal approvals | 2022 | Low | Design to minimize customer impact. Project Preplanning and customer/community outreach |
| Internal construction resources not available to perform the work. | 2022/2023 | High | Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost. |
| Internal engineering resources not available to perform the work. | 2022 | Medium | Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost. |
| Storm delays | 2022/2023 | Low | If storm activity delays work, we may be forced to use external resources. |
| System abnormal configuration | 2022 | Low | Schedule work to minimize system abnormal time. Most of this work will require the system to be abnormal for any extended period. |

## References

## Appendices (One-Line Diagrams, Images, etc.)

*Reference appendices items in the appropriate section of the PAF and list items in the same order as referenced in the PAF.*