EVERSOURCE

Project Approval Form

Project Title: 2024 Large Customer Zones RWO - Eastern	Project Number: CD02202
Date Prepared: 08/01/2024	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** SMART SWITCHES PROGRAM
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: 12/31/2025	
Total Capital Request: $1,215.3K	**Authorization Type:** Full Funding

1. Executive Summary

Full funding is being requested for this project at a cost of **$1,215.3K** which is 124.6% of the partial funding capital estimate of $975.5K. Project CD02202 was partially approved on March 30th, 2023.

There is no scope change on the project. The current approved estimate was prepared using legacy unit costs, which are approximately 30% lower than the estimates used today to account for an increase in material and labor costs.

The Original Project was presented as follows:

The 2024 Smart Switch Program addresses 40% of the large customer zones feeding over 1000 customers in Connecticut. The installation of multiple smart switches will reduce the customers affected in the event of future outages. The remaining large zones with over 1000 customers will be addressed under the 2025 Smart Switch Program. One project has been created per division.

CD02202 addresses 5 large customer zones in the Eastern Division with the installation of 12 viper reclosers. The zones addressed and the customers in each zone are listed below:

AWC	DEVICE NAME	CUST IN ZONE
[redacted]		

[redacted]

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2025	Year 2	Year 3+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	109.1	0.0	0.0	109.1
Outside Services	56.0	0.0	0.0	56.0
Materials	508.1	0.0	0.0	508.1
Removals	28.0	0.0	0.0	28.0
Risk and Contingency	84.8	0.0	0.0	84.8
Other	7.0	0.0	0.0	7.0
Subtotal – Direct Costs	**792.9**	**0.0**	**0.0**	**792.9**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	422.4	0.0	0.0	422.4
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal – Indirect Costs	**422.4**	**0.0**	**0.0**	**422.4**
Total Gross Capital Costs	**1,215.3**	**0.0**	**0.0**	**1,215.3**
Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Total Net Capital Project Costs	**1,215.3**	**0.0**	**0.0**	**1,215.3**

Explain unique payment provisions, if applicable:

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

Reduce large customers zones by installing additional reclosers.

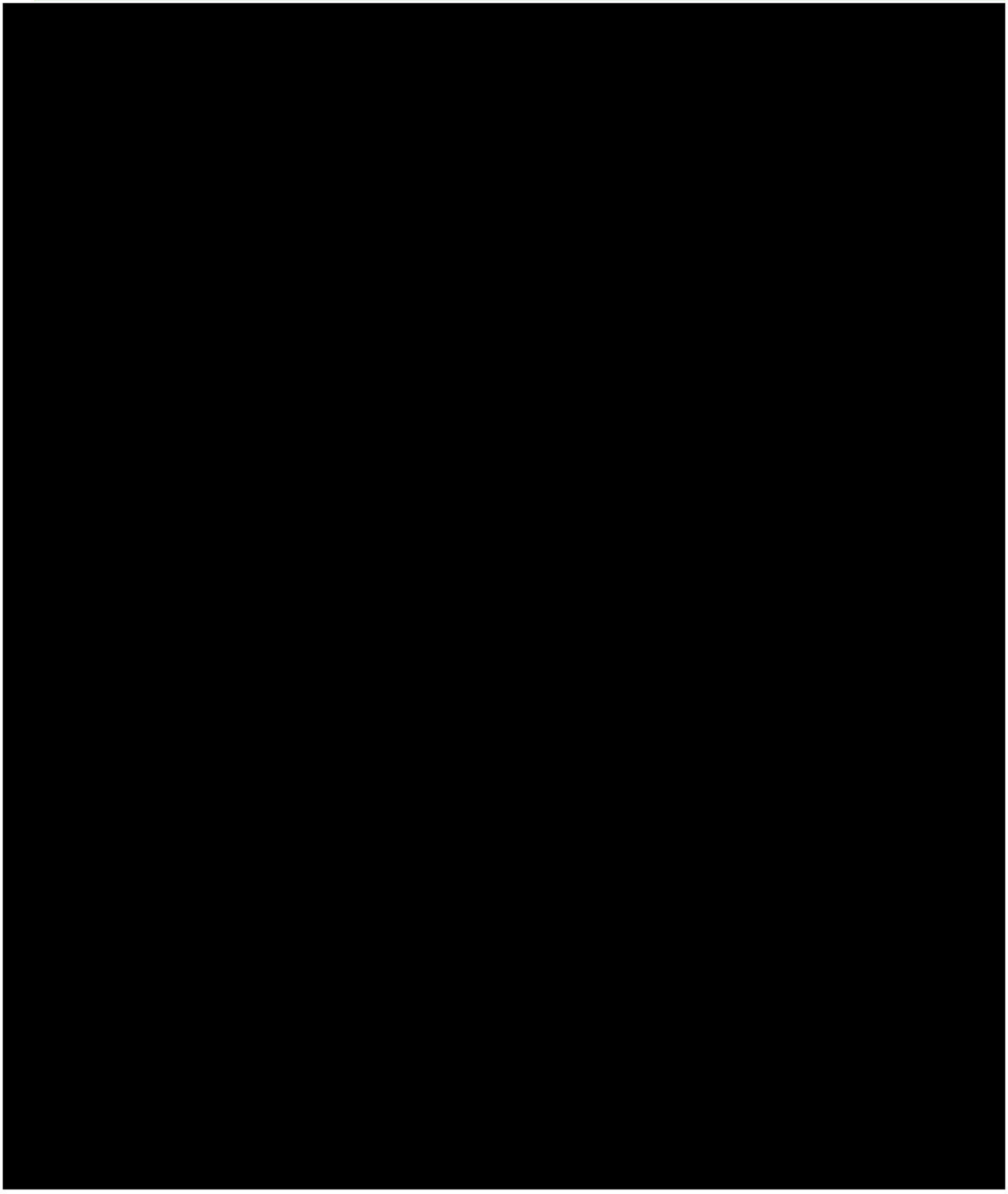
[redacted]

b. Project Need

Eversource's Smart Switch program identifies large customer zones by installing reclosers to obtain customer zones < 500. This project addresses large customers zones in the Eastern Region.

c. Project Scope

- [redacted] The scope for CD02202 includes:



4. Alternatives Considered

Project Option Comparison

	Option
[redacted]	
Authorization Type	Full
Capital Cost	$1,215.3K
Expense Cost	$48.6K
Total Cost	$1,263.9K
Total Cost / MVA added	$3.10M
Preferred option	X

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	4/1/23
100% Detailed Engineering Completion	10/31/23

Milestone/Phase Name	Estimated Date
Fully Funded	8/1/24
Construction Start	3/1/25
In Service Date	12/31/25

6. Regulatory Decisions

N/A

7. Codes and Standards

N/A

8. Risk and Contingencies

Risk Mitigation:

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2025	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	2025	Medium	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2025	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.	2024	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2025	High	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2025	Medium	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2025	Medium	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.
Technological risks involving integration of new technology	2025	Low	Before use of new technology ensure support of standards and manufacturer. Schedule project to accommodate for extra time or ensure new technology is not on the critical path.
Wetlands / Environmentally sensitive area	2025	Low	Use of mats and specialty equipment, only work during certain times of the year.

9. References

References
1. N/A

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. System and Station One-Lines	*YES*
C. PAF File	*YES*

A. Cost Estimate:

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02202
2024 Large Customer Zones - RWO -Eastern

Segment CD02202-01

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$126,055
Contingency Amount:	$30,253
Estimate:	$156,308
Reimbursement:	$0
Net Amount:	**$156,308**
Description:	

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17	3509.60 / EA	1	$3,509.60
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18	1.00 / $	6,000	$6,000.00
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph	16-OH43	10283.20 / LOC	2	$20,566.40
SECTIONALIZE OH - Recloser - 3ph	16-OH38	47989.60 / LOC	2	$95,979.20

[redacted]

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]						

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02202

2024 Large Customer Zones - RWO -Eastern

Segment CD02202-02

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$364,373
Contingency Amount:	$87,449
Estimate:	$451,822
Reimbursement:	$0
Net Amount:	**$451,822**

Description:

Item Description	CU	[redacted]	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17		$7,019.20
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18		$18,000.00
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph [redacted]	16-OH43		$20,566.40
SECTIONALIZE OH - Recloser - 3ph [redacted] SR	16-OH38		$47,989.60
SECTIONALIZE OH - Recloser - 3ph [redacted] SS	16-OH38		$47,989.60
SECTIONALIZE OH - Recloser - 3ph [redacted]	16-OH38		$47,989.60
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph [redacted]	16-OH43		$30,849.60
SECTIONALIZE OH - Recloser - 3ph [redacted] - 2 SS	16-OH38		$95,979.20
SECTIONALIZE OH - Recloser - 3ph Relocated MR on [redacted]	16-OH38		$47,989.60

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02202

2024 Large Customer Zones - RWO -Eastern

Segment CD02202-03

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$126,055
Contingency Amount:	$30,253
Estimate:	$156,308
Reimbursement:	$0
Net Amount:	**$156,308**

Description:

Item Description	CU	[redacted]	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17		$3,509.60
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18		$6,000.00
SECTIONALIZE OH - Recloser - 3ph [redacted]	16-OH38		$95,979.20
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph [redacted]	16-OH43		$20,566.40

Associated / Impacted Devices

Status	[redacted]	Street / Cross St	Structure / Town	[redacted]	Cust	Notes
Existing	[redacted]					

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02202

2024 Large Customer Zones - RWO -Eastern

Segment CD02202-04

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$204,640
Contingency Amount:	$49,114
Estimate:	$253,754
Reimbursement:	$0
Net Amount:	$253,754

Description:

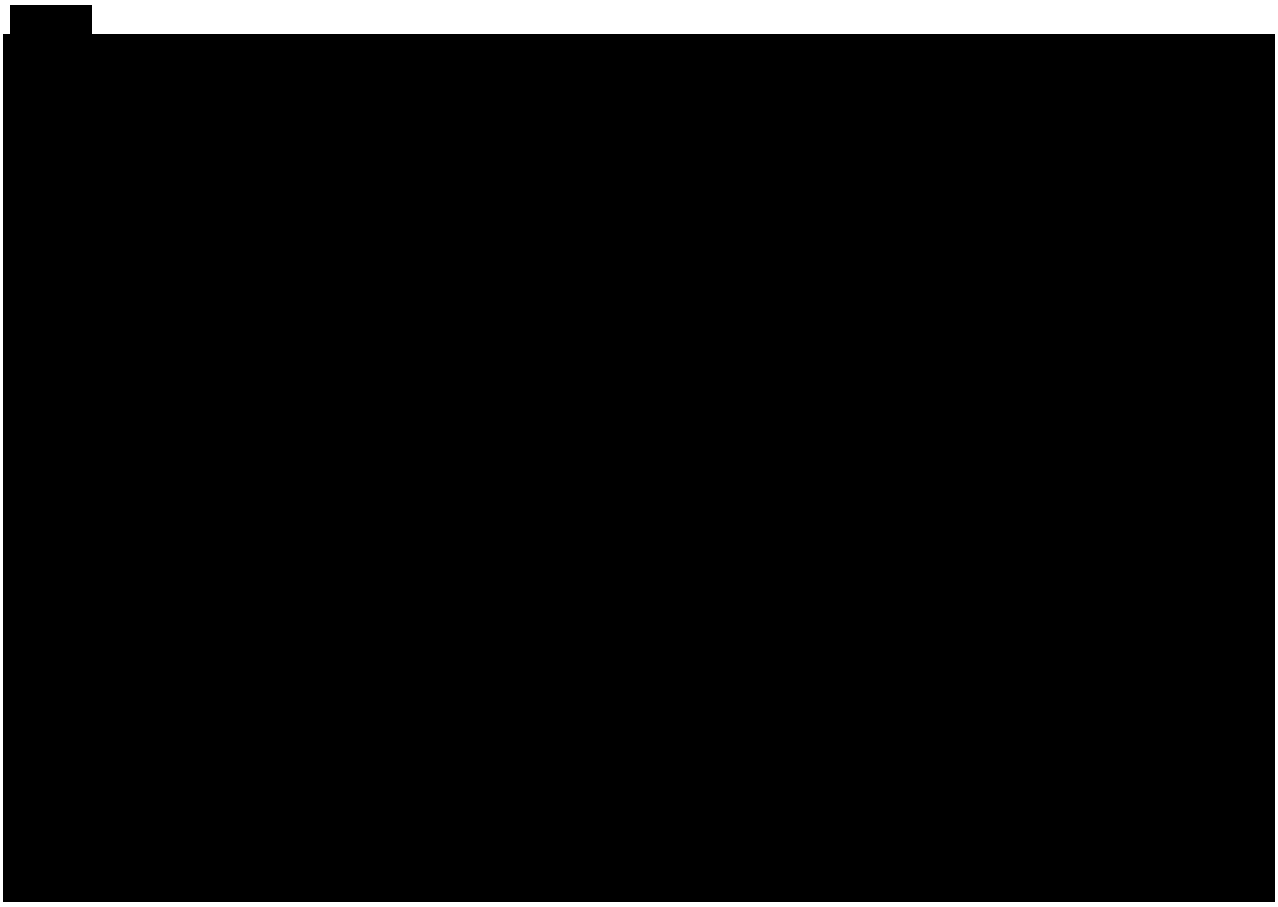
Item Description	CU	[redacted]	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17		$3,509.60
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18		$15,000.00
SECTIONALIZE OH - Remove Recloser (any)	16-OH42		$11,312.00
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph	16-OH43		$30,849.60
SECTIONALIZE OH - Recloser - 3ph [redacted]MR	16-OH38		$47,989.60
SECTIONALIZE OH - Recloser - 3ph [redacted]SS	16-OH38		$47,989.60
SECTIONALIZE OH - Recloser - 3ph Relocated [redacted]	16-OH38		$47,989.60

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]	OLD NORWICH RD COLLEGE CT	39 WATERFORD	[redacted]		1330	

B. System and Station One-lines:





[redacted]



[redacted]

[redacted]

[redacted]

Project Title: 2024 Large Customer Zones RWO - Eastern	Project Number: CD02202
Date Prepared: 03/16/2023	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** SMART SWITCHES PROGRAM
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: 12/31/2024	
Total Capital Request: 975.5K	**Authorization Type:** Partial Funding

1. Executive Summary

The 2024 Smart Switch Program addresses 40% of the large customer zones feeding over 1000 customers in Connecticut. The installation of multiple smart switches will reduce the customers affected in the event of future outages. The remaining large zones with over 1000 customers will be addressed under the 2025 Smart Switch Program. One project has been created per division.

CD02202 addresses 5 large customer zones in the Eastern Division with the installation of 12 viper reclosers. The zones addressed and the customers in each zone are listed below:

AWC	DEVICE NAME	CUST IN ZONE
[redacted]		

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2024	Year 2025	Year 2026	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	53.2	0.0	0.0	53.2
Outside Services	109.1	0.0	0.0	109.1
Materials	506.5	0.0	0.0	506.5
Removals	58.3	0.0	0.0	58.3
Risk and Contingency	2.5	0.0	0.0	2.5
Other	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**729.5**	**0.0**	**0.0**	**729.5**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	234.4	0.0	0.0	234.4
Capitalized interest or AFUDC, if any	11.5	0.0	0.0	11.5
Subtotal – Indirect Costs	**245.9**	**0.0**	**0.0**	**245.9**
Total Gross Capital Costs	**975.5**	**0.0**	**0.0**	**975.5**
Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Total Net Capital Project Costs	**975.5**	**0.0**	**0.0**	**975.5**

Explain unique payment provisions, if applicable:

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

Reduce large customers zones by installing additional reclosers.



b. Project Need

- Eversource's Smart Switch program identifies large customer zones by installing reclosers to obtain customer zones < 500. This project addresses large customers zones in the Eastern Region.

c. Project Scope

- [redacted] The scope for CD02202 includes:

[redacted]

4. Alternatives Considered

The only alternative would be to do nothing but was not selected because it does not address the large customer zones that would be affected by a single location outage.

[redacted]	
Authorization Type	Partial
Capital Cost	$975.5K
Expense Cost	$42.7K
Total Cost	$1,018.2K
Total Cost / MVA added	$2.5M
Preferred option	X

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	4/1/23
100% Detailed Engineering Completion	10/31/23
Fully Funded	12/31/23
Construction Start	3/1/24
In Service Date	12/31/24

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 higher than estimated due to scope changes.	2024	Medium	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
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Wetlands / Environmentally sensitive area	2024	Low	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	*NO*
D. System and Station One-Lines	*YES*
E. Other	*YES / NO / N/A*
F.	