AGENDA Monday October 2, 2017

TOWN OF EASTHAM BOARD OF SELECTMEN AGENDA Monday, October 2, 2017 5:00PM

Location: Earle Mountain Room

I. PUBLIC/SELECTMEN INFORMATION

- **II. APPOINTMENTS** (discussion & vote may be taken)
 - 5:05p.m. Introduce Jeff Caton, Network & Technical Services Director and Jacki Rivero, Town Treasurer
 - 5:10p.m. Water Project Update, Mark White and Ryan Trahan, Environmental Partners Group

(Note: Other than public hearings, all times are approximate and items may be taken out of order.)

III. ADMINISTRATIVE MATTERS

- A. Action/Discussion (votes may be taken)
 - 1. Recommendation to Award Water Project Contract 9 South Collector Roads
 - 2. Recommendation to Award Water Project Contract 10 Central Collector Roads
 - 3. Recommendation to Award Water Project Contract 11 North Collector Roads
 - 4. Committee Resignation Lou Roy, Cultural Council
 - 5. Committee Appointments to the Strategic Planning Committee
 - i. Joanna Buffington, Board of Health Representative
 - ii. Arthur Autorino, Planning Committee Representative
 - iii. Michael Hackworth, Finance Committee Representative
 - iv. Ben Niggel, Nauset High School Student, At Large Representative
 - v. Scott Kerry, At Large Business Representative
 - 6. Senior Tax Work Off Program
 - 7. TAP Follow-up & Road Safety Audit
 - 8. Warrant Articles Discussion & Vote
 - i. Separate Warrant for Voting
 - ii. Vote to Place Articles on the Warrant

IV. TOWN ADMINISTRATOR'S REPORT

V. OTHER BUSINESS

Discussion of topics not reasonably anticipated by the Chair 48 hours before the meeting

Upcoming Meetings

| Tuesday, October 3, 2017 | 4:00p.m. | Earl Mountain Room | DCPC Public Hearing |
|-----------------------------|----------|-----------------------------|----------------------|
| Wednesday, October 4, 2017 | 2:30p.m. | Small Meeting Room | Work Session |
| Monday, October 16, 2017 | 5:00p.m. | Earle Mountain Room | Regular Session |
| Wednesday, October 18, 2017 | 2:30p.m. | Small Meeting Room | Work Session |
| Monday, October 23, 2017 | 6:30p.m. | Nauset Regional High School | Pre STM Meeting |
| Monday, October 23, 2017 | 7:00p.m. | NRHS Auditorium | Special Town Meeting |

The listing of matters includes those reasonably anticipated by the Chair that may be discussed at the meeting. Not all items listed may in fact be discussed and other items not listed may be brought up for discussion to the extent permitted by law.

This meeting is video recorded and broadcast over Local Access Channel 18 and on the Town website at <u>www.eastham-ma.gov</u>.

If you are deaf or hard of hearing or are a person with a disability who requires an accommodation, contact Laurie Gillespie-Lee, 5900 x3207

APPOINTMENTS

Water System Update BOS Meeting – October 2, 2017

- Project Awards
- Phase 1
 - Construction Status
 - Budget Status
- Phase 2A Contracts 9, 10 & 11
 - Bidding Results/Award Recommendations
- Phase 2
 - Permitting status and schedule



Water System Update NEWWA Annual Conference

Who is Eastham?

- Household median income: \$42,600 (2010)
- 6,600 properties
- Median age: 57
- Senior citizens: 32%
- Median home price: \$415,000





Water System Update Project Awards





AMERICAN PUBLIC WORKS ASSOCIATION

Project of the Year Award Small Cities/Rural Communities Award

Environment

Presented to

Environmental Partners Group, Inc.

For the

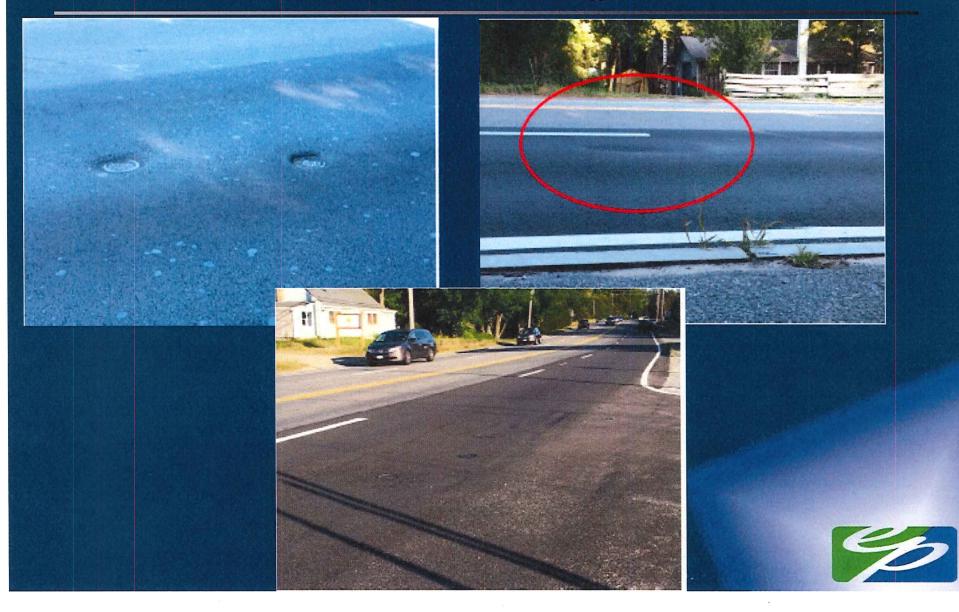
From the Ocean to the Bay – How Eastham Compressed a Century of Water System Development into five years

August 28, 2017

Phase 1 – Construction Update

- All Contracts substantially complete
- All Curb Stops completed
- Landfill area paving completed
- Orleans Loop is completed and in service
- Remaining:
 - Final paving of Orleans loop (Sept/Oct)
 - Connecting Eastham parcels on Orleans system
 Punch list items (Route 6 Issues)
 - P

Route 6 South Paving Deficiencies



Route 6 South Paving Deficiencies

Meeting and walk through with the contractor Meeting with MassDOT on September 20 Site visit by MassDOT personnel on September 25 EPG field crew onsite September 27 to measure settlement Formulating remedial actions, correct areas after Columbus Day



Phase 1 Budget Status Through August 2017

| | Original Budget | Cu | rrent Budget | Tot | al Completed |
|----------------------------|--------------------|-----|--------------|-----|--------------|
| TOWN MEETING APPROPRIATION | \$ 45,800,000 | \$ | 45,800,000 | \$ | 45,800,000 |
| Construction | \$ 35,670,000 | \$ | 31,302,670 | \$ | 30,899,179 |
| Police Details | \$ 2,320,000 | \$ | 1,200,000 | \$ | 1,186,716 |
| Engineering | \$ 5,400,000 | \$ | 5,400,000 | \$ | 5,002,445 |
| Additional Items | | -\$ | 3,167,587 | \$ | 1,845,435 |
| TOTAL | \$ 43,390,000 | \$ | 41,070,257 | \$ | 38,933,775 |
| BALANCE, Phase 1 | \$ 2,410,000 | \$ | 4,729,743 | | |

\$4.7M under budget (to be carried forward into Phase 2)



Update on Connections

- 608 current homes connected, about 1,550 people (not including school populations)
- 52 current outstanding applications awaiting installation
- 160 homes connected outside mandatory area

 Slow application during the summer (1/week). Expected to increase during off season and with new water mains.



Free Meter End Dates

Contract 3 Contract 4 Contract 5 Contract 6 Contract 7 Contract 8 March 29, 2018 February 27, 2018 November 14, 2017 November 7, 2017 March 3, 2018



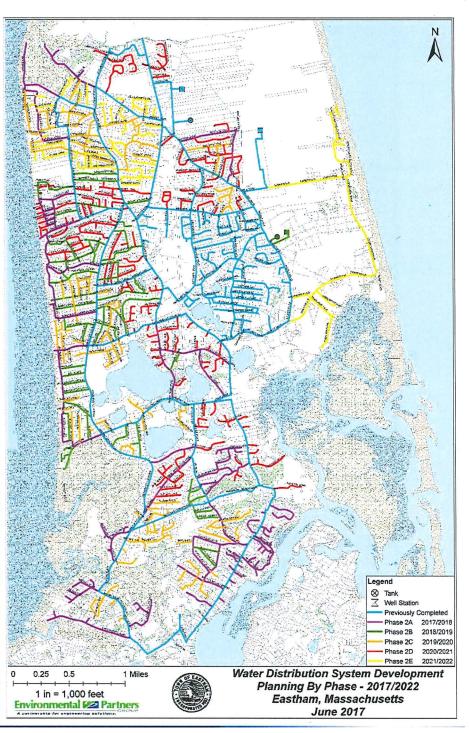
Connecting Your Property

- Get <u>multiple</u> quotes for the work
- Have a contractor or plumber file your application

If you choose <u>not</u> to keep you well for irrigation:
Cut and cap below grade (3' or more)







A partnership for en

When is my street going to get water?

- Go to "Eastham Municipal Water Project" web page
- Click new blue button "WHEN WILL WATER BE INSTALLED ALONG MY ROAD"
 Each road is listed with the phase, contract and projected date of construction.



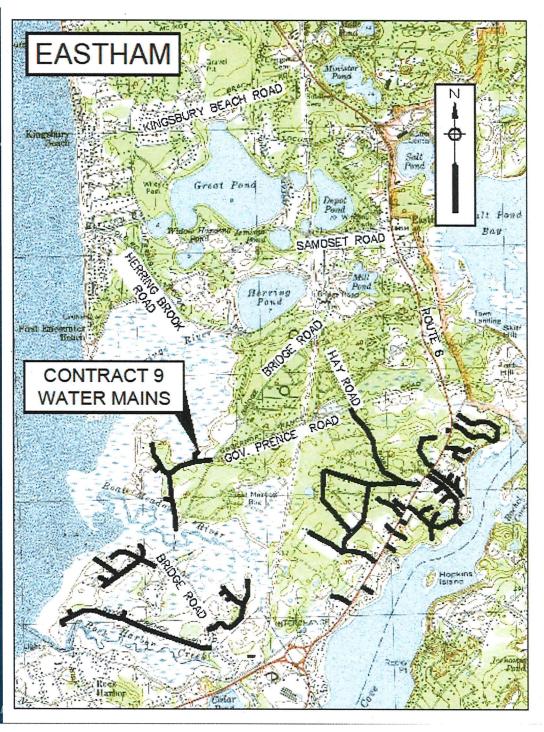
Phase 2A – Contract 9 Bid Results

Contract 9
10 Bids Received
Celco Construction Corp. – Low Bidder
Low Bid = \$4.3M vs \$5.2 Estimated
Long working history with Celco, recommend to award the contract



Phase 2A

Contract 9 South Eastham



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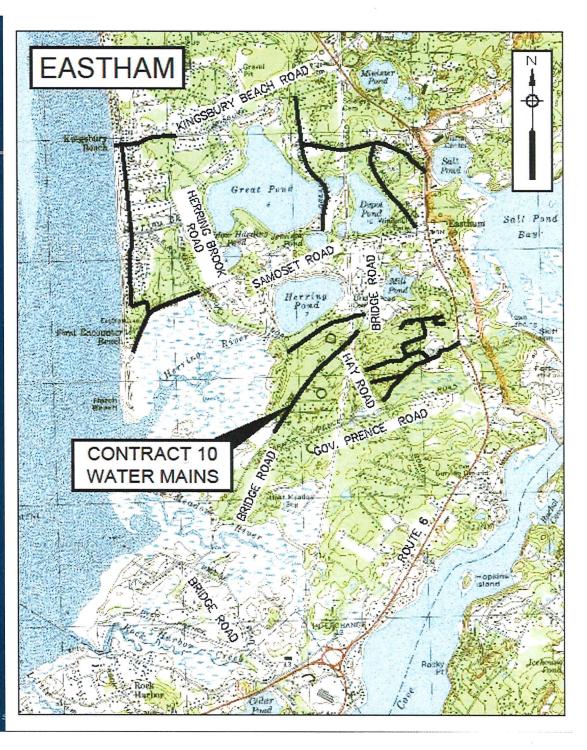
Phase 2A – Contract 10 Bid Results

Contract 10 9 Bids Received RJV Construction Corp. – Low Bidder - Low Bid = \$3.4M vs \$4.2 Estimated RJV performed Contracts 6 & 8, good working relationship. Recommend to award Contract 10



Phase 2A

Contract 10 -Central Eastham



A partner

Phase 2A – Contract 11 Bid Results Contract 11 8 Bids Received GVC Construction Corp. – Low Bidder Low Bid = \$3.15M vs \$4.0 Estimated - GVC subcontracted with CC Construction & RJV Construction. References all had glowing reviews. Recommend to award Contract 11

Phase 2A

Contract 11 -North Eastham



Phase 2A Schedule Contracts 9, 10 and 11

Contract Award Contract Execution Construction Start Construction Complete This week Late October Early-mid-November August 2018

Pending authorization to award by DEP SRF



Phase 2A – Curb Stop Locations

- Property owners being contacted this summer and early fall
- Door hangers with information
- Flag placed at proposed curb stop location
- Email <u>easthamwater@envpartners.com</u> if you want to change the location



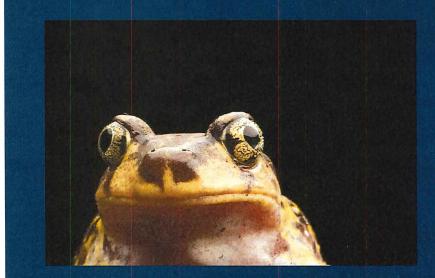
Phase 2 Permitting Activities

MEPA
Cape Cod Commission
DEP Design Review for all Phase 2 water mains
Conservation Commission (received)



Mass. Fish & Wildlife Natural Heritage & Endangered Species Program

Eastern Spadefoot Toad habitat evaluation
Additional modeling of groundwater drawdown
Review results with NHESP mid-late October
Conservation & Management Plan to be prepared







Phase 2 Permitting Program

MEPA Draft and Final Supplemental EIR October 2017 – January 2018 Cape Cod Commission Development of Regional Impact – January-February 2018 Conservation Commission NOI – done DEP design reviews – with each Phase and contract area Water Management Act – Spring 2018



Where Can I Get Information?

Eastham web page http://easthamwaterproject.weebly.com

Eastham Water Projects Email Address:
 <u>easthamwater@envpartners.com</u>

Eastham Water Project Phone Number
 617-657-0279



Billing Questions?

Phone - 800-553-5191
 Email –<u>customer-service@pennichuck.com</u>

Emergency before or after Business Hours – Please contact WhiteWater: Phone - **888-377-7678**



ADMINISTRATIVE MATTERS

Environmental 🞾 Partners

A partnership for engineering solutions.

September 19, 2017

Ms. Jacqueline Beebe, Town Administrator Town of Eastham 2500 State Highway Eastham, MA 02642

Recommendation to Award RE: Contract 9 Water Mains - South Collector Roads, Eastham, MA 217-1701.09

Dear Ms. Beebe:

Sealed bids for the subject contract were opened on September 14, 2017 at 2:30 p.m. Bids were received from 10 Contractors. Environmental Partners has checked the bid proposals for completeness and accuracy, in accordance with the Project Documents and the provisions and requirements of M.G.L. Chapter 30, Section 39M. Enclosed is a detailed Bid Tabulation of the bid prices included with each bid.

The Base Bid consists of water main installation and surface restoration on town roadways or private ways with a water utility taking. The Additive Bid Alternate consists of work on property not yet secured via easement or where additional archaeological work is required, and therefore the Department of Environmental Protection cannot currently give the Town authorization to award the Additive Bid Alternate. Therefore we advise the Town only award the Base Bid at this time. Based on our review of Base Bid prices, Celco Construction Corporation is the apparent low bidder, with a total bid price of \$3,990,162.45. Celco Construction Corporation was also the low bidder for the Additive Bid Alternate with a total price of \$4,314,485.60. The work on private easements (the difference between the Base Bid and Additive Bid Alternate, \$324,323.15) will be added to the contract if or when the private easements are secured.

We have a great working history with Celco Construction Corporation on similar projects. Additionally, we contacted several of their listed references. One of their references described Celco Construction Corporation as, "easy to work with" and "everyone enjoys working with them." Phone logs from the references are attached for your review Based on the information provided herein, we have determined that Celco Construction Corporation is the lowest responsible and eligible bidder under the provisions of M.G.L. Chapter 30, Section 39M. As a result, we recommend award of Contract 9 Water Mains to Celco Construction Corporation.

Therefore, please find enclosed a "Notice of Award" which reflects Environmental Partners' recommendation. If you are in agreement with our recommendation, please sign and date the attached "Notice of Award", and return it to my attention. We will forward the signed Notice of Award to Celco Construction Corporation, along with the other contract document requirements. Celco Construction Corporation will then have 10 days to sign the contract and return it to the Town for execution.

Hvannis: 396 North Street, Hyannis, MA 02601 TL 508.568.5103 • FX 508.568.5125

Headquarters: 1900 Crown Colony Drive, Suite 402, Quincy, MA 02169 18 Commerce Way, Suite 2000, Woburn, MA 01801 TL 617.657.0200 • FX 617.657.0201

Wohurn: TL 781.281.2542 • FX 781.281.2543 Ms. Jacqueline Beebe September 19, 2017

Please feel free to contact me at (617) 657-0253 or rjt@envpartners.com with any questions or concerns.

Very truly yours, Environmental Partners Group, Inc.

Ryan J. Trahan, P.E. *Principal*

enc. Bid Checklist, Bid Tabulation, Reference Phone Logs, Notice of Award (00510-1)

cc: Neil Andres, Mark White

CONTRACT 9 WATER MAINS - SOUTH COLLECTOR ROADS 217-1701.09 Eastham, MA

 A red value denotes a elerical error (the actual value that was written in words or the corrected value from a mathinatical error)

| | BIDDER | BIDDER BASE BID PROPOSAL | | BASE BID AND ADDITIVE BID ALTERNATE PROPOSAL | Addendum No. 1 | Completed and Signed Bid Proposal | Bid Security | Cert of Non- Collusion | Cert of Corporate Vote | Cert as to Payment of State Taxes | OSHA 10-HR. TRAINING | Debarment Disclosure Form | Bid Certification Statement | DBE Program Forms | Diesels Retrofit Forms | Completed Project Reference Lis |
|----|-----------------------------------|--------------------------|--------------|---|-------------------|---|-----------------|---------------------------|------------------------------|---|-------------------------|---------------------------------|-----------------------------------|-------------------------|------------------------------|---------------------------------------|
| 1 | Celco Construction Corporation | \$ | 3,990,162.45 | \$ 4,314,485.60 | 1 | 1 | * | * | 4 | * | * | 1 | 1 | .* | 1 | ~ |
| 2 | KJS LLC | \$ | 4,473,082.63 | \$ 4,838,755.99 | 1 | * | 1 | * | * | ¥ . | * | ~ | * | | 1 | ~ |
| 3 | Robert B. Our Co., Inc. | \$ | 4,599,469.95 | \$ 4,879,032.55 | ~ | × . | 4 | | ~ | ~ | * | 1 | ~ | | 1 | ~ |
| 4 | J.A. Polito & Sons, Inc. | \$ | 4,630,963.20 | \$ 4,938,801.85 | * | * | * | 1 | 1 | ~ | * | 1 | | | ~ | ~ |
| 5 | C.C. Construction, Inc. | \$ | 4,736,191.95 | \$ 5,040,786.35 | 1 | 4 . | * | * | 1 | ~ | * | 1 | × | | 1 | ~ |
| 6 | Revoli Construction Co., Inc. | \$ | 4,929,372.20 | \$ 5,333,142.80 | 1 | * | * | * | * | ~ | * | • • | * | | 1 | ~ |
| 7 | GVC Construction, Inc. | \$ | 4,946,844.60 | \$ 5,294,119.00 | * | ~ | * | | 1 | ~ | ~ | 1 | ~ | | ~ | ~ |
| 8 | R&D Site Development, LLC | \$ | 5,127,075.00 | \$ 5,461,345.00 | 1 | ~ | ~ | ~ | | ~ | ~ | ~ | | | 1 | ~ |
| 9 | RJV Construction Corp. | \$ | 5,137,388.20 | \$ 5,467,535.85 | 1 | ~ | ~ | ~ | * | ~ | ~ | ~ | * | | ~ | 1 |
| 10 | RFS Corp. | \$ | 5,762,972.20 | \$ 6,178,981.05 | 1 | ~ | 1 | ~ | * | 1 | ~ | ~ | | | 1 | 1 |

Environmental 😂 Partners

CONTRACT 9 WATER MAINS - SOUTH COLLECTOR ROADS

Town of Eastham

Contract Number: 217-1701.09

BASE BID TABULATION, CONTRACT 9 - BID OPENING SEPTEMBER 14, 2017 AT 2:30 P.M.

| No. Quantity 1 Mobilization and Demobilization 1 2a Sinch Ductile-Iron Water Main, Class 50 pipe 32,100 2b G-inch Ductile-Iron Water Main, Class 50 pipe 32,100 2b G-inch Ductile-Iron Water Main, Class 50 pipe 66,650 2c Polythylene Encassment (V-3HO) 38,800 3 Sinch DR11 Directionally Drilled High-Density Polyethylene (HDPE) Water Main 125 4a Sinch Gate Valves and Boxes 42 4b Grinch Gate Valves and Boxes 103 5 Fire Hydrants 82 6a 1-inch service taps, including corporations, fittings, curb stops, and boxes 82 6c 2-inch service taps, including corporations, fittings, curb stops, and boxes 8 6c 2-inch service taps, including corporations, fittings, curb stops, and boxes 11 6d 1-i-inch polectylence (PE) lubing 9.9775 7h 1-inch polectylence (PE) lubing 500 7c 2-inch polectylence (PE) lubing 10000 8 Exploratory Exavariations 4000 9 < | Units Is. If. If. If. If. ca. ca. ca. ca. ca. ca. ca. ca | S 20,000.00 S S 52.00 S S 48.00 S S 1.00 S S 215.00 S S 1.200.00 S S 900.00 S | IA Total Price 20,000.00 S 1,669,200.00 S 319,200.00 S 38,800.00 S 26,875.00 S | KJS Li Norwood Unit Price \$7,000.00 \$ 50.00 \$ 61.00 \$ 1.00 \$ | Total Price S 87.000.00 5 S 1,605.000.00 5 | Robert B. Our Harwich, Unit Price S 135,000.00 S S 41.55 S | MA Total Price 135,000.00 S | J.A. Polito & Shrewsbur Unit Price | ry, MA Total Price | C.C. Constructi South Dennis Unit Price | | Revoli Construct Franklin Unit Price | | GVC Constructio Leontinster, M Unit Price | | R&D Site Developmer Groveland, MA Unit Price T | | RJV Constructio Canton, M. Unit Price | | RFS Corp. Norfolk, M/ Unit Price | 1A |
|--|---|--|---|---|--|--|-----------------------------------|--|--------------------------------|---|-----------------|--|----------------|---|--------------------|--|----------------------------|---|-----------------------------|--|-------------------------|
| No. Quantity 1 Mobilization and Demobilization 1 2a Sinch Ducitle-Iron Water Main, Class 50 pipe 32,100 2b G-inch Ducitle-Iron Water Main, Class 50 pipe 32,100 2b G-inch Ducitle-Iron Water Main, Class 50 pipe 6,650 2c Polyethylene Encacement (V-BIO) 38,800 3 Sinch DR11 Directionally Drilled High-Density Polyethylene (HIDPE) Water Main 125 4a Sinch Gate Valves and Boxes 42 4b Grink Gate Valves and Boxes 103 5 Fire Hydrants 82 6a 1-inch service taps, including corporations, fittings, curb stops, and boxes 8 6c 2-inch service taps, including corporations, fittings, curb stops, and boxes 11 6d 1-i-inch box-vice (PI) lubing 9,975 7b 1-i-inch polyethylenc (PE) lubing 500 7c 2-inch polyethylenc (PE) lubing 10000 8 Exploratory, Exacation 400 9 Rock Exervation 375 10 Additional Exervation 375 <t< th=""><th>Is. If. If. If. ea. ea. ca. ca. ca. ca.</th><th>Unit Price Tr S 20,000.00 S S 52.00 S S 48.00 S S 1.00 S S 215.00 S S 1.200.00 S S 1.200.00 S S 900.00 S</th><th>Total Price Fill 20,000,00 S 1,669,200,00 S 319,200,00 S 38,800,00 S 26,875,00 S</th><th>Unit Price 87,000.00 5 50.00 5 61.00 5</th><th>Total Price S 87.000.00 5 S 1,605.000.00 5</th><th>Unit Price S 135,000.00 S</th><th>Total Price 135,000.00 S</th><th>Unit Price</th><th>Total Price</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<> | Is. If. If. If. ea. ea. ca. ca. ca. ca. | Unit Price Tr S 20,000.00 S S 52.00 S S 48.00 S S 1.00 S S 215.00 S S 1.200.00 S S 1.200.00 S S 900.00 S | Total Price Fill 20,000,00 S 1,669,200,00 S 319,200,00 S 38,800,00 S 26,875,00 S | Unit Price 87,000.00 5 50.00 5 61.00 5 | Total Price S 87.000.00 5 S 1,605.000.00 5 | Unit Price S 135,000.00 S | Total Price 135,000.00 S | Unit Price | Total Price | | | | | | | | | | | | |
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| 3 8-inch DR11 Directionally Drilled High-Density Polyethylene (HDPE) Water Main 125 4a 8-inch Gate Valves and Boxes 42 4b 6-inch Gate Valves and Boxes 103 5 Firet Hydrants 82 6a 1-inch service tapo, including corporations, fittings, curb stops, and boxes 402 6b 1-2-inch service tapo, including corporations, fittings, curb stops, and boxes 8 6c 2-inch service tapo, including corporations, fittings, curb stops, and boxes 8 6c 2-inch service tapo, including corporations, fittings, curb stops, and boxes 11 6d 1-2-inch service tapo, including corporations, fittings, curb stops, and boxes 11 7a 1-inch blow-off connections 5 7b 1-1-2-inch polychylene (PE) ubing 9000 8 Exploratory Executations 400 9 Rock Exavation 450 10 Additional Exervation 375 11a Gracel Borrow 4,450 | lf. cd. ca. ca. ca. ca. | S 215.00 S S 1.200.00 S S 900.00 S | 26,875.00 S | 100 0 | S 405.650.00 | S 40.44 S | 268.926.00 S | 55.00 | S 365,750.00 S | S 39.50 S | 262.675.00 S | S 72.00 | S 478,800.00 | S 69.00 S | 458.850.00 S | 5 50.00 S | 332,500.00 S | 65.00 S | 432.250.00 S | 59.00 S | 392.350.00 |
| 4a 8-inch Gate Valves and Boxes 42 4b 6-inch Gate Valves and Boxes 103 5 Fire Hydrants 82 6a 1-inch service taps, including corporations, fittings, curb stops, and boxes 402 6b 1-1 2-inch service taps, including corporations, fittings, curb stops, and boxes 8 6c 2-inch service taps, including corporations, fittings, curb stops, and boxes 8 6c 2-inch service taps, including corporations, fittings, curb stops, and boxes 11 6d 1-inch service taps, including corporations, fittings, curb stops, and boxes 5 7a 1-inch stopxethylenc (PE) tubing 9.075 7b 1-1.2-inch polychylenc (PE) tubing 500 7c 2-inch polychylenc (PE) tubing 10000 8 Exploratory Executions 400 9 Reck Execution 450 10 Additional Execution 375 11a Gracel Borrow 4.450 | ca. ca. ca. ca. ca. | S 1.200.00 S S 900.00 S | 100 C | 1.00 3 | S 38,800.00 | S 1.02 S | 39.576.00 S | 1.00 | S 38,800.00 S | S 1.95 S | 75.660.00 S | S 2.00 | S 77,600.00 | S 1.00 S | 38,800.00 S | S 1.00 S | 38,800.00 S | 5.00 S | 194,000.00 S | 0.65 S | 25.220.00 |
| 4b 6-inch Gate Valves and Boxes 103 5 Fire Hydrants 82 6a 1-inch service taps, including corporations, fittings, curb stops, and boxes 402 6b 1-12-inch service taps, including corporations, fittings, curb stops, and boxes 8 6c 2-inch service taps, including corporations, fittings, curb stops, and boxes 8 6d 1-inch blow-off connections 5 7a 1-inch polychthylene (PE) tubing 9,975 7b 1-12-inch polychthylene (PE) tubing 500 7c 2-inch polychthylene (PE) tubing 10000 8 Exploratory Executions 400 9 Rock Exeavation 4375 11a Gracel Borrow 4,450 | ca. ca. ca. ca. | S 900.00 S | | 100.00 5 | S 12,500.00 | S 118.00 S | 14.750.00 S | 160.00 | S 20,000.00 S | 5 179.00 S | 22,375.00 S | S 60.00 | S 7,500.00 | S 150.00 S | 18,750.00 S | S 90.00 S | 11.250.00 S | 100.00 S | 12.500.00 S | 410.00 S | 51,250.00 |
| 5 Fire Hydrants 82 6a 1-inch service taps, including corporations, fittings, curb stops, and boxes 402 6b 1-12-inch service taps, including corporations, fittings, curb stops, and boxes 8 6c 2-inch service taps, including corporations, fittings, curb stops, and boxes 8 6c 2-inch service taps, including corporations, fittings, curb stops, and boxes 11 6d 1-i-inch blow-off connections 5 7a 1-inch polychthylene (PE) tubing 9.975 7b 1-1-2-inch polychthylene (PE) tubing 500 7c 2-inch polychthylene (PE) tubing 10000 8 Exploratory Excavations 400 9 Rock Exervation 450 10 Additional Exervation 375 11a Gravel Borrow 4,450 | ca, ca, ca, | | 50.400.00 S | 1.200.00 \$ | S 50,400.00 | S 1.376.00 S | 57.792.00 S | 1,200.00 | S 50,400.00 S | 5 1.295.00 S | 54.390.00 S | S 1.975.00 | S 82.950.00 | S 877.00 S | 36.834.00 S | S 1.500.00 S | 63,000.00 S | 1.500.00 S | 63,000.00 S | 1.200.00 S | |
| 6a 1-inch service taps, including corporations, fittings, curb stops, and boxes 402 6b 1-12-inch service taps, including corporations, fittings, curb stops, and boxes 8 6c 2-inch service taps, including corporations, fittings, curb stops, and boxes 11 6d 1-inch blow-off connections 5 7a 1-inch blow-off connections 5 7b 1-12-inch polyethylene (PE) tubing 9,975 7b 1-12-inch polyethylene (PE) tubing 500 7c 2-inch polyethylene (PE) tubing 1,000 8 Exploratory Executions 400 9 Rock Exwardion 450 10 Additional Excastion 375 11a Gracel Borrow 4,450 | ca. ca. | | 92.700.00 S | 825.00 5 | S 84,975.00 | S 889.00 S | 91.567.00 S | 800.00 | S 82,400.00 S | 5 1,095.00 S | 112.785.00 S | S 1,475.00 | S 151.925.00 | 5 574.00 S | 59,122.00 S | S 1,000.00 S | 103.000.00 S | 1,000.00 S | 103,000.00 S | 925.00 S | 95,275.00 303,400.00 |
| 6b 1-1-2-inch service typs, including corporations, fittings, curb stops, and boxes 8 6c 2-inch service typs, including corporations, fittings, curb stops, and boxes 11 6d 1-inch bow-off connections 5 7a 1-inch polyethylene (PE) tubing 9.975 7b 1-1-2-inch polyethylene (PE) tubing 500 7c 2-inch polyethylene (PE) tubing 10000 8 Exploratory Executions 400 9 Rock Exavation 450 10 Additional Execution 375 11a Gracel Borrow 4.450 | ca. | S 3,000.00 S | 246.000.00 S | 3,425.00 \$ | S 280.850.00 S | S 3,199.00 S | 262,318.00 S | 3,000.00 | S 246,000.00 S | S 2.795.00 S | 229.190.00 S | S 7.500.00 | S 615.000.00 | S 3.225.00 S | 264,450.00 S | 5 3,800.00 S | 311,600.00 S | 3.500.00 S | 287,000.00 S | 3.700.00 S | 303,400.00 |
| 6c 2-inch service taps, including corporations, fittings, curb stops, and boxes 11 6d 1-inch blow-off connections 5 7a 1-inch polychthyce (PE) tubing 9,975 7b 1-1.2-inch polychthyce (PE) tubing 500 7c 2-inch polychthyce (PE) tubing 1000 8 Exploratory Executions 400 9 Rock Execution 450 10 Additional Execution 375 11a Gravel Borrow 4,450 | | S 900.00 S | 361.800.00 S | 800.00 \$ | S 321,600.00 S | S 993.00 S | 399.186.00 S | 600.00 | S 241,200.00 S | 5 1,000.00 S | 402,000.00 S | \$ 250.00 | S 100,500.00 | S 500.00 S | 201,000.00 S | S 1,100.00 S | 442,200.00 S | 650.00 S | 261,300.00 S | 1,400.00 S 2,100.00 S | 16,800.00 |
| 6d 1-inch blow-off connections 5 7a 1-inch polycth/kene (PE) tubing 9/975 7b 1-1.2-inch polycth/kene (PE) tubing 500 7c 2-inch polycth/kene (PE) tubing 1,000 8 Exploratory Executions 400 9 Rock Executions 450 10 Additional Execution 375 11a Gravel Borrow 4,450 | | S 1,200.00 S | 9,600.00 S | 1,500.00 5 | 5 12,000.00 5 | S 1,415.00 S | 11.320.00 S | 1.060.00 | S 8.000.00 S | 5 1.300.00 S | 10.400.00 S | S 375.00 | S 3.000.00 | S 696.00 S | 5.568.00 S | 5 1.100.00 S | 8,800.00 S | 1,000.00 S | 8.000.00 S | | 29,700.00 |
| 7a 1-inch polycthylene (PE) tubing 9.975 7b 1-1.2-inch polycthylene (PE) tubing 500 7c 2-inch polycthylene (PE) tubing 1.0000 8 Exploratory Executions 400 9 Rock Execution 450 10 Additional Execution 375 11a Gravel Borrow 4,50 | ca. | S 1.500.00 S | 16,500.00 S | 2,000.00 \$ | S 22.000.00 S | S 1,890.00 S | 20,790.00 S | 1,200.00 | S 13,200.00 S | 5 1.700.00 S | 18,700.00 S | S 750.00 | S 8,250.00 | s 733.00 S | 8,063.00 S | S 1.100.00 S | 12,100.00 S | 1,200.00 S | 13,200.00 S | 2,700.00 S 750.00 S | 3,750.00 |
| 7b 1-1-2-inch polyethylene (PE) tubing 506 7c 2-inch polyethylene (PE) tubing 1,000 8 Exploratory Executions 400 9 Rock Execution 450 10 Additional Execution 375 11a Gravel Borrow 4,450 | ea. | S 1.000.00 S | 5.000.00 S | 900.00 | S 4.500.00 S | S 1.000.00 S | 5,000.00 S | 1,000.00 | S 5.000.00 S | 5 1.500.00 S | 7,500.00 S | S 2.500.00 | S 12.500.00 | S 350.00 S | 1,750.00 S | S 1.00 S | 5.00 S | 1.500.00 S | 7,500.00 S | 750.00 S 8.00 S | 3.750.00 |
| 7c 2-inch polysthylene (PE) tubing 1,000 8 Exploratory Exeavations 400 9 Rock Exeavation 450 10 Additional Exervation 375 11a Gracel Borrow 4,50 | If. | S 20.00 S | 199,500.00 S | 23.00 5 | S 229.425.00 S | S 9.25 S | 92.268.75 S | 20.00 | \$ 199,500.00 \$ | 5 17.50 S | 174.562.50 S | S 15.00 | S 149,625.00 | S 42.00 S | 418,950.00 S | S 1.00 S | 9,975.00 S | 20.00 S | 199,500.00 S 10,000.00 S | 8.00 S | 4.000.00 |
| 8 Exploratory Excatations 400 9 Rock Excatation 450 10 Additional Excatation 375 11a Gravel Borrow 4,450 | lf. | S 25.00 S | 12,500.00 S | 30.00 \$ | S 15.000.00 S | S 12.25 S | 6,125.00 S | 20.00 | S 10.000.00 S | 5 21.50 S | 10.750.00 S | S 16.00 | S 8.000.00 | s 43.00 S | 21,500.00 S | 5 1.00 S | 500.00 S | 20.00 \$ | 10,000.00 S | 12.00 S | 12.000.00 |
| 9 Rock Excavation 450 10 Additional Excavation 375 11a Gravel Borrow 4,450 | lf. | S 35.00 S | 35.000.00 S | 40.00 \$ | S 40.000.00 S | S 15.50 S | 15.500.00 S | 20.00 | S 20,000.00 S | S 23.50 S | 23.500.00 S | S 20.00 | S 20,000.00 | S 43.00 S | 43.000.00 S | S 1.00 S | 1.000.00 S | 0.01 S | 20.000.00 S | 0.01 S | 12,000.00 |
| 10 Additional Excavation 375 11a Gravel Borrow 4,450 | ey. | S 0.01 S | 4.00 S | 0.01 5 | S 4.00 S | S 0.01 S | 4.00 S | 0.01 | S 4.00 S | S 0.01 S | 4.00 S | S 0.01 | s 4.00 | S 0.01 S | 4.00 S | S 1.00 S | 400.00 S | 0.01 S | 4.00 S | 65.00 S | 29.250.00 |
| 11a Gravel Borrow 4.450 | cy. | S 0.01 S | 4.50 S | 0.01 5 | S 4.50 S | S 0.01 S | 4.50 S | 0.01 | S 4.50 S | 5 0.01 S | 4.50 S | S 0.01 | | S 0.01 S | 4.50 S | S 1.00 S | 450.00 S 375.00 S | | 4.50 S | 0.01 S | 3.75 |
| | cy. | S 0.01 S | 3.75 S | 0.01 5 | S 3.75 5 | S 0.01 S | 3.75 S | 0.01 | S 3.75 S | S 0.01 S | 3.75 S | 5 0.01 : | | S 0.01 S | 3.75 S | S 1.00 S | | 0.01 S | 3.75 S 44.50 S | 0.01 5 | 44,50 |
| | cy. | S 0.01 S | 44.50 S | 0.01 5 | S 44.50 S | S 0.01 S | 44.50 S | | s 44.50 s | 5 0.01 S | 44.50 S | S 0.01 | S 44.50 | S 0.01 S | 44.50 S | S 1.00 S | 4.450.00 S 167.000.00 S | 0.01 S | 44.50 S | 8.25 S | 68 887.50 |
| 11b Processed Gravel 8.350 | cy. | S 0.01 S | 83.50 S | 0.01 S | S 83.50 S | S 10.00 S | 83,500.00 S | 0.01 | S 83.50 S | 5 0.01 S | 83.50 S | S 0.01 | S 83.50 | S 0.01 S | 83.50 S | 5 20.00 S | 167,000.00 S | 0.01 S | 4.20 5 | 0.01 \$ | 4.20 |
| | cy. | S 0.01 S | 4.20 \$ | 0.01 5 | 5 4.20 5 | S 0.01 S | 4.20 S | 0.01 | s 4.20 S | 5 0.01 S | 4.20 S | S 0.01 : | S 4.20 | S 0.01 S | 4.20 S | 5 1.00 S | 420.00 S | 0.01 S | 4.20 S | 28.00 S | 229.600.00 |
| | sy. | S 0.01 S | 82.00 S | 16.00 S | S 131.200.00 S | S 19.30 S | 158.260.00 S | 20.00 | 5 164.000.00 5 | 5 23.95 S | 196,390.00 S | S 0.01 3 | | S 0.01 S | 82.00 S | 5 20.00 S 5 30.00 S | 243.000.00 S | 0.01 5 | 81.00 S | 28.00 S | 234.900.00 |
| 12b Trench Pavement (3" Depth) 8.100 | sy. | S 30.00 S | 243,000.00 S | 24.00 \$ | S 194,400.00 S | S 37.70 S | 305,370.00 S | 25.00 | S 202,500.00 S | 5 32.95 S | 266,895.00 S | s 9.00 : | | S 0.01 S | 81.00 S 87.00 S | 5 30.00 S | 243,000.00 S | 0.01 5 | 87.00 S | 32.00 S | 278,400.00 |
| 12c Trench Pavement (4" Depth) 8.700 | 5V. | S 0.01 S | 87.00 S | 32.00 S | \$ 278.400.00 \$ | S 46.40 S | 403.680.00 S | 30.00 | \$ 261,000.00 \$ | 43.95 S | 382,365.00 S | s 10.00 | | S 0.01 S | 10.200.00 S | S 20.00 S | 348.000.00 S | 50.00 S | 8,500.00 S | 35.00 S | 5 950 00 |
| 12d Pavement repairs, sidewalks, parking lots, driveways 170 | sy. | S 40.00 S | 6.800.00 S | 0.01 S | S 1.70 S | S 54.00 S | 9,180.00 S | 40.00 | 5 6,800.00 5 | 5 47.95 S | 8.151.50 S | \$ 25.00 | S 4.250.00 | s 60.00 S | 422.400.00 S | 5 11.00 S | 211,200,00 S | 20.00 \$ | 384.000.00 S | 20.00 \$ | 384.000.00 |
| 12e 12-inch Overcut, 1-1 2" Mill and Pavement Overlay 19,200 | 57. | S 13.00 S | 249,600.00 S | 13.00 5 | \$ 249,600.00 5 | S 18.72 S | 359,424.00 S | 14.00 | 5 268,800.00 5 | 5 17.95 S | 344,640.00 S | 5 6.00 | S 115.200.00 | S 13.90 S | 279.390.00 S | 5 12.00 S | 241,200.00 S | 15.00 S | 301,500,00 S | 14.00 S | 281.400.00 |
| 12f 2-inch Pavement Overlay 20,100 | sy. | S 11.00 S | 221,100.00 S | 12.65 \$ | 5 254.265.00 5 | S 13.20 S | 265.320.00 S | 12.00 | 5 241.200.00 5 | S 13.95 S | 280.395.00 S | s 7.00 s | S 9.200.00 | s 8.90 S | 10.235.00 S | 5 8.00 S | 9.260.00 S | 5.00 S | 5,750.00 S | 6.50 5 | 7.475.00 |
| | lf. | S 5.00 S | 5,750,00 S | 5.00 S | 5 5.750.00 5 | S 4.75 S | 5,462.50 S | 8.00 | 5 9.200.00 S | 4.95 S | 5,692.50 S | 5 8.00 5 5 2.00 5 | 5 8,650.00 | s 12.00 S | 51.900.00 S | S 10.00 S | 43.250.00 S | 14.00 5 | 60,550,00 S | 6.01 5 | 43.25 |
| | gal. | S 12.50 S | 54,062.50 \$ | 12.50 S | \$ \$4,062.50 \$ | S 13.50 S | 58_387.50 S | 12.50 | 5 54.062.50 5 | 9.00 S | 38.925.00 S | 5 75,000,00 | S 75,000.00 | S 20.000.00 S | 20,000,00 \$ | S 20.000.00 S | 20.000.00 S | 20.000.00 \$ | 20.000.00 S | 100 000 00 5 | 160.000.00 |
| | ls. | S 1.00 S | 1.00 S | 0.01 5 | 5 0.01 5 | S 15.000.00 S | 15,000.00 S | 20.000.00 | 5 20.000.00 S | 5 25.000.00 S | 25,000.00 S | | s 5.000.00 | S 2.495.00 S | 9.980.00 S | 5 1,000,00 S | 4.000.00 S | 800.00 S | 3.200.00 S | 750.00 S | 3.000.00 |
| | month | S 700.00 S | 2.800.00 S | 800.00 S | \$ 3.200.00 \$ | S 1.100.00 S | 4.400.00 S | 800.00 | S 3.200.00 S | 5 495.00 S | 1.980.00 S | S 1.250.00 5 0.75 | S 2,925.00 | S 0.83 S | 3.237.00 S | 5 2.00 S | 7,800.00 S | 1.50 \$ | 5.850.00 S | 1.50 S | 5,850.00 |
| 13c 4-inch Pavement Markings 3,900 | lf. | S 1.00 S | 3.900.00 S | 1.00 S | 5 3,900.00 5 | S 0.75 S | 2.925.00 \$ | 1.00 5 | 5 <u>3,900.00</u> S | 5 1.00 S | 3,900.00 S | 5 1.75 | s 78.75 | 5 0.83 S | 108.00 \$ | 5 5.00 S | 225.00 S | 5.00 S | 225.00 S | 4.25 \$ | 191.25 |
| | If. | S 10.00 S | 450.00 S | 10.00 S | 5 450.00 S | S 5.00 S | 225.00 S | 100.00 | 5 4.500.00 S | 3.00 S 4.95 S | 135.00 S | s 0.01 | S 18.75 | S 6.70 S | 26.632.50 S | 5 10.00 S | 39.750.00 S | 8.00 S | 31.800.00 S | 8.00 S | 31,800.00 |
| | sy. | S 0.01 S | 39.75 S | 0.01 S | 39.75 5 | S 5.25 S | 20,868.75 S | 5.00 5 | 5 19,875.00 S | 4.95 S | 19,676.25 S | 5 15.00 | S 15 000 00 | S 11.65 S | 11.650.00 S | 5 30.00 S | 30,000,00 \$ | 15.00 S | 15,000,00 S | 4.50 S | 4,500.00 |
| | sy. | S 13.00 S | 13,000.00 S | 8.00 S | 5 8,000.00 S 5 79.950.00 S | S 8.00 S S 4.90 S | 8,000.00 S 65,292,50 S | 20.00 | 5 20,000.00 S 5 86.612.50 S | s 19.00 S | 19,000,00 S | 5 0.01 | s 133.25 | 5 6.70 S | 89.277.50 S | 5 6.00 S | 79.950.00 S | 6.00 S | 79,950.00 S | 5.00 S | 66,625.00 |
| The manual former and seek | II. | S 6.00 S | 79.950.00 S | | | | 65.292.50 S 3.740.00 S | 6.50 | 5 86.612.50 S | 9.00 S | 7 876 00 \$ | 5 50.00 | s 2.200.00 | s 100.00 S | 4.400.00 S | 50.00 S | 2.200.00 S | 100.00 S | 4,400,00 S | 45.00 S | 1,980.00 |
| | ea. | S 75.00 S | 3,300,00 S | 0.01 5 | 5 0.44 S | S 85.00 S | 3.740.00 S | 0.01 | 5 4.400.00 S | 0.01 S | 18.00 \$ | s 0.00 | S 18.00 | 5 0.01 S | 18.00 \$ | 5 1.00 S | 1.800.00 S | 0.01 S | 18.00 S | 0.01 S | 18.00 |
| | Ibs. | S 0.01 S | 18.00 S | 0.01 S | | S 5.00 S | 7.500.00 S | 0.01 5 | 5 18.00 S | 0.01 5 | 0.75 \$ | 100.00 | s 7.500.00 | 5 0.01 S | 0.75 \$ | 5 1.00 S | 75.00 S | 0.01 S | 0.75 S | 0.01 \$ | 0.75 |
| | ca. | S 0.01 S | 0.75 \$ | 0.01 5 | 5 0.75 S | | 42.000.00 \$ | 10.000.00 | 5 20.000.00 S | S 19.500.00 S | 39.000.00 S | 5 10.500.00 | S 21.000.00 | 5 5.000.00 S | 10.000.00 S | S 25.000.00 S | 50,000,00 S | 10,000.00 S | 20.000.00 S | 45.000.00 S | 90,000,00 |
| 18 Water Main Culvert Crossing 2 19 Miscellaneous Items 1 | ls. | S 1.00 S | 2.00 S 3.000.00 S | 0.01 5 | 5 0.02 S 5 0.01 S | | 42.000.00 S | 25.000.00 | 5 25.600.00 S | 25.000.00 S | 25.000.00 \$ | 5 1.00 | S 1.00 | | 42,500.00 \$ | 5 5,000.00 S | 5,000.00 S | 138,000.00 S | 138,000.00 S | 55,000.00 S | 55,000.00 |
| 12 IMISCENTROUS IEEMS | ls. | 3 3,000,00 5 | 3,000,00 5 | 0.01 5 | 0.01 5 | 5 18,000,00 5 | 18,000.00 5 | 23,000,00 | 22,000.00 3 | 25,000,00 3 | 20,000,00 3 | 1.00 | | | | | | | | | |
| REPORTED BASE BID | | | | | | | | | | | | | | | | | | | | | |
| CALCULATED BASE BID | D TOTAL | S 3 | 3.990.162.45 S | | 4.473.082.63 5 | s | 4.599.469.95 S | | 4.630.963.20 \$ | ; | 4.736.191.95 \$ | \$ | 4.929.372.20 | 5 | 4.946.844.60 \$ | 1 | 5.124.015.00 S | | 5.137.388.20 5 | | 5.762.972.20 |

- A red value denotes a clerical error (the actual value that was written in words or the corrected value from a mathmatical error).

CONTRACT 9 WATER MAINS - SOUTH COLLECTOR ROADS

Town of Eastham Contract Number: 217-1701.09

ADDITIVE BID ALTERNATE TABULATION, CONTRACT 9 - BID OPENING SEPTEMBER 14, 2017 AT 2:30 P.M.

| No. | Bid Quantity | Units | Celco Construction Pembroke | | KJS 1 Norwoo | | Robert B. O Harwic | | J.A. Polito & Shrewsbur | | C.C. Constru South Deni | | Revoli Constructio Franklin, J | | GVC Constr Leoninst | | R&D Site Develo Groveland | | RJV Construct | | RFS C | |
|---|-----------------|------------|--------------------------------|---------------------|------------------------------|-------------------|---|---------------------------|----------------------------|----------------|---|------------------------|--|---------------------|--|--------------------|------------------------------|--|--|------------------------|--|-------------------|
| | | I | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price |
| B-1 Mobilization and Demobilization | 0 | ls. | S 15.000.00 S | iolarinee - 9 | - | S - | s - | S - | S 15.000.00 | Total Thee | s 10.000.00 | | S | Total Trice | S 0.01 | s . | Charlie | S - | S | - | S 17,500,00 | S |
| B-2a 8-inch Ductile-Iron Water Main, Class 50 pipe | 1.900 | 10. | S 54.00 S | 5 102,600,00 | 5 63.00 | s 119,700.00 | S 41.55 | S 78,945.00 | S 55.00 S | 5 104,500.00 | \$ 41.95 | | S 103.00 S | 195,700.00 | S 69.00 | S 131,100,00 | S 60.00 | 5 114.000.00 | S 70.00 S | 133 000.00 | S 63.00 | S 119.70 |
| B-2b 6-inch Ductile-Iron Water Main, Class 50 pipe | 850 | If. | S 49.00 S | 41,650.00 | 5 79.00 | 5 67,150,00 | S 40.44 | | S 55.00 S | 46,750.00 | \$ 39.50 | | S 100.00 S | 85,000,00 | S 69.00 | S 58,650,00 | S 50.00 | \$ 42,500,00 | S 65.00 S | 55.250.00 | S 59.00 | S 50,15 |
| B-2c Polyethylene Encasement (V-BIO) | 2.700 | If. | S 1.00 S | 2.700.00 | 5 1.00 | \$ 2.700.00 | S 1.02 | | S 1.00 S | 2,700.00 | s 1.95 | | S 2.00 S | 5,400.00 | S 1.00 | | S 1.00 | \$ 2,700,00 | S 5.00 S | 13,500.00 | S 0.65 | S 1.75 |
| B-3 8-inch DR11 Directionally Drilled High-Density Polyethylene (HDPE) Water Main | 275 | п. 11. | S 215.00 S | 59,125,00 | 5 100.00 | \$ 27,500.00 | S 118.00 | | S 150.00 S | 41,250.00 | 5 179.00 | 49.225.00 | S 60.00 S | 16,500,00 | s 175.00 | S 48,125,00 | S 100.00 | 5 27,500,00 | S 100.00 S | 27,500,00 | S 410.00 | \$ 112.75 |
| B-Ja 8-inch Okti Directionally Dritted right-Density Polycinytene (HDPE) water Main | 3 | ca. | S 1.200.00 S | 3 3,600.00 | 5 1.200.00 | \$ 3,600,00 | S 1.376.00 | S 4,128,00 | S 1,200,00 S | 3.600.00 | 5 1.295.00 | 3.885.00 | S 1.975.00 S | 5.925.00 | S 877.00 | S 2.631.00 | S 1.800.00 | 5 5,400.00 | S 1.500.00 S | 4,500.00 | S 1,200,00 | S 3,60 |
| B-4 S-inch Gate Valves and Boxes B-4b 6-inch Gate Valves and Boxes | 7 | ca. | S 900.00 S | 6,300.00 | \$ \$25.00 | 5 5.775.00 | S 889.00 | 24 | S 800.00 S | 5,600.00 | s 1,095.00 | 5 7,665.00 | 5 1,475.00 S | 10,325.00 | S 657.00 | S 4,599.00 | S 1.000.00 | \$ 7,000,00 | S 1.000.00 S | 7.000.00 | S 925.00 | S 6.47 |
| B-5 Fire Hydrants | 7 | ca. | S 3.000.00 S | 21,000.00 | 3,425.00 | \$ 23,975.00 | S 3,199.00 | S 22,393,00 | S 3,000,00 S | 21.000.00 | 5 2,795,00 | 19,565,00 | S 7,500.00 S | 52,500,00 | S 3.500.00 | S 24.500.00 | S 3,800.00 | 5 26,600.00 | S 3,500.00 S | 24,500.00 | S 3,700.00 | S 25.90 |
| | 24 | | S 950.00 S | 22,800.00 | 5 1.200.00 | S 28,800.00 | S 993.00 | | S 600.00 S | 5 14,400,00 | s 1.000.00 | 5 24,000.00 | S 250.00 S | 6.000.00 | S 500.00 | S 12.000.00 | S 1.100.00 | S 26,400.00 | s 650.00 S | 15,600.00 | S 1,400.00 | S 33.60 |
| B-6a 1-inch service taps, including corporations, fittings, curb stops, and boxes | 24 | ca. | 5 950.00 5 | 22,800.00 | 5 1.200.00 | 5 28,800.00 | 5 993.00 | 5 23,832.00 | 5 600.00 2 | 14,400.00 | 5 1,000.00 | 24,000.00 | 5 250.00 5 | 6.000.00 | 3 300.00 | 5 12,000.00 | 5 1,100.00 : | 5 26,400.00 | 5 630.00 5 | 13,000.00 | 3 1,400.00 | 3 33,00 |
| B-6b NotUsed | - | | | | | - Andre Carl | | Contraction of the second | | | Contraction of the | | | | | | | | A second second second | | and the second second | 1 the local day |
| B-6e NotUsed | | | | | | and the second of | | | Charles and the | and the second | and the second second | Carriel and a second | and a second | | | | | and the second s | the second s | The state of the | and the second | |
| B-6d NotUsed | | | | | 20.11 | | | | | | | | | 0.010.57 | | | | | | 11.000.00 | c | 5 4.40 |
| B-7a 1-inch polyethylene (PE) tubing | 550 | lf. | S 20.00 S | 5 11,000.00 | 5 30.00 | 5 16.500.00 | S 9.25 | S 5.087.50 | S 20.00 S | 11,000.00 | 5 17.50 | 9.625.00 | S 15.00 S | 8,250.00 | S 42.00 | S 23.100.00 | 5 1.00 | 5 550.00 | S 20.00 S | 11,000.00 | S 8.00 | 5 4,40 |
| B-7b NotUsed | | | | | ALC: NOT THE REAL | and the second | and the second | | | and the second | 1 912000 | | | | in the second | DE CARALLER | | A CARLER OF | and the second | and the second second | and the second | 4 . Later |
| B-7c Not Used | | | | and see all all | | | | | | | Same Same | | | | DATE AND A DESCRIPTION OF | Call Solice Ser | | | | | | |
| B-8 Exploratory Excavations | 25 | cy. | S 0.01 S | 5 0.25 S | 5 0.01 | S 0.25 | S 0.01 | | S 0.01 S | 0.25 | s 0.01 | | S 0.01 S | 0.25 | S 0.01 | | S 1.00 5 | \$ 25.00 | S 0.01 S | 0.25 | | S |
| B-9 Rock Excavation | 30 | ey. | S 0.01 S | 5 0.30 5 | 5 0.01 | \$ 0.30 | S 0.01 | | | 0.30 | 5 0.01 | | S 0.01 S | 0.30 | | | S 1.00 5 | 5 30.00 | S 0.01 S | 0.30 | | \$ 1.95 |
| B-10 Additional Excavation | 25 | ey. | S 0.01 S | 6 0.25 5 | 5 0.01 | S 0.25 | S 0.01 | | | 0.25 | 5 0.01 | | S 0.01 S | 0.25 | S 0.01 | | S 1.00 S | 5 25.00 | S 0.01 S | 0.25 | | S |
| B-11a Gravel Borrow | 300 | ev. | S 0.01 S | 5 3.00 5 | 5 0.01 | \$ 3.00 | \$ 0.01 | | S 0.01 5 | 3.00 | 5 0.01 | | S 0.01 S | 3.00 | S 0.01 | | \$ 1.00 5 | 5 300.00 | S 0.01 S | 3.00 | | S . |
| B-11b Processed Gravel | 750 | cy. | S 0.01 S | 5 7.50 5 | 5 0.01 | 5 7.50 | S 10.00 | S 7.500.00 | S 0.01 S | 7.50 | 5 0.01 | 5 7.50 | S 0.01 S | 7.50 | S 0.01 | S 7.50 | S 30.00 S | 5 22,500.00 | S 0.01 S | 7.50 | | \$ 6,18 |
| B-11c Crushed Stone | 30 | ey. | S 0.01 S | 5 0.30 5 | 5 0.01 | 5 0.30 | S 0.01 | S 0.30 | S 0.01 S | 0.30 | 5 0.01 | 0.30 | S 0.01 S | 0.30 | S 0.01 | S 0.30 | S 30.00 S | 5 900.00 | S 0.01 S | 0.30 | S 0.01 | \$ |
| B-12a Not Used | | | | ANK A | Section States | | Sheller and | | | The second | and the second second | | and the second second | | | | | State State | | and the second second | and the second second | A REAL PROPERTY. |
| B-12b Trench Pavement (3" Depth) | 900 | sv. | S 30.00 S | 27.000.00 5 | 5 24.00 | 5 21,600.00 | S 26.90 | \$ 24,210.00 | S 30.00 S | 27,000.00 | 5 17.95 | 16,155.00 | S 9.00 S | 8,100.00 | S 0.01 | S 9.00 | S 30.00 S | 5 27.000.00 | S 0.01 S | 9.00 | S 29.00 | S 26,10 |
| B-12c Not lised | | | In contract of the loss | | No. of Contract of Contract | 15 ST 15 | 148 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | Service and Service and | | | | | 1200 | | | | Production a | | | | New Street |
| B-12d Pavement repairs, sidewalks, parking lots, driveways | 15 | sy. | S 40.00 S | 600.00 \$ | 0.01 | 5 0.15 | S 30.00 | \$ 450.00 | \$ 40.00 \$ | 600.00 | 47.95 | 719.25 | S 25.00 S | 375.00 | S 60.00 | S 900.00 | S 30.00 S | 5 450.00 | S 50.00 S | 750.00 | S 35.00 | S 52: |
| B-12e 12-inch Overcut, 1-1-2" Mill and Pavement Overlay | 1,350 | 51. | S 13.00 S | 17,550.00 5 | 30.00 | 5 40,500.00 | S 18.72 | S 25,272.00 | S 14.00 S | 18,900.00 | 31.95 | 43.132.50 | S 6.00 S | 8.100.00 | S 22.00 | S 29,700.00 | S 12.00 S | 5 16,200.00 | S 20.00 S | 27,000.00 | S 12.00 | S 16.20 |
| B-12f Not Used | | | | | States and states | | | | | 1 | ALL STORES | Loss March 1 | | 21670 62076 | C. B. A. A. A. A. A. | Photos and | A Blond Contract | | | | | |
| B-12g NorUsed | | | Current and T | The other states in | | 2.2/11 | and the second second | | | | | | Contra Children | att a contration of | ALCONOMIC INC. | State of the state | 2000 | | | State Participation of | Service and services | 1000 |
| B-12h Modified Asphalt-Fiber Crackfiller | 175 | cal. | S 12.50 S | 2,187.50 5 | 12.50 | 3 2.187.50 | S 13.50 | S 2,362.50 | S 12.50 S | 2,187.50 | 9,00 | 1.575.00 | S 2.00 S | 350.00 | S 6,00 | 5 1.050.00 | 5 10,00 5 | 1.750.00 | S 14.00 S | 2,450.00 | S 0.01 | S |
| B-13a Not Used | | | | | | No. | S. 19 19 19 | | CONTRACTOR OF A | INC. SCOLUM | A REAL PROPERTY OF | | NUCLEAR DATE OF THE PARTY OF TH | 582.57 | 100 March 100 Ma | 1 | ALC: NOT ALC: NOT | | | | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Per al |
| B-13b Not Used | 1.57 | | | | 1000 - 000 | 2010 | ale for the strength of | | Contraction of the second | 1 | | | | | State of the state | | | | The second second second | and the second | | The second second |
| B-13c 4-inch Pavement Markings | 250 | IC. | S 1.00 S | 250.00 5 | 1.00 | 5 250.00 | S 0.75 | 5 187.50 | S 1.00 S | 250.00 | 5 1.00 5 | 250.00 | S 0.75 S | 187.50 | S 0.83 | S 207.50 | S 5.00 S | 1,250,00 | S 1.50 S | 375.00 | \$ 1.50 | S 37: |
| B-13d 12-inch Pavement Markings | 5 | H. | S 10.00 S | 50.00 5 | 10,00 | 50,00 | S 5.00 | | S 100.00 S | 500.00 | 3.00 | 15.00 | S 1.75 S | 8.75 | S 2.40 | S 12.00 | S 5.00 S | 25.00 | S 5.00 S | 25.00 | | |
| B-14a Loam and Seed | 200 | sv. | S 0.01 S | 2.00 5 | 0.01 | 3 2.00 | S 5.25 | | S 5.00 S | | 4.95 | 990.00 | S 0.01 S | 2.00 | \$ 6.70 | S 1.340.00 | 5 10.00 5 | 2,000.00 | S 8.00 S | 1,600.00 | | 5 1.60 |
| B-14b Blue stone, Washed stone, and Sea-shell Roadways | 15 | 3y. 5V. | S 13.00 S | 195.00 | 8.00 | 5 120,00 | S 8.00 | | S 20.00 S | 300.00 | 19.00 | 285.00 | S 15.00 S | 225.00 | S 11.65 | S 174.75 | S 10.00 S | 150.00 | S 15.00 S | 225.00 | | S 6 |
| B-15a Erosion Control Devices - Filter Sock | 875 | If. | S 6.00 S | 5.250.00 | 6.00 | 5.250.00 | S 7.00 | | S 6.50 S | | 9.00 | 7,875.00 | S 0.01 S | 8.75 | s 6.70 | \$ 5,862.50 | 5 10.00 5 | 8,750.00 | S 6.00 S | 5.250.00 | | s 4,37: |
| B-15b Sedimentation Control at Catch Basins Silt Sacks | 6 | ca. | S 75.00 S | 450.00 5 | 0.01 | 0.06 | S 95.00 | S 570.00 | S 100.00 S | 600,00 | 179.00 | 1,074.00 | S 50.00 S | 300.00 | S 100.00 | S 600.00 | 5 10.00 5 | 60.00 | S 100.00 S | 600.00 | | S 270 |
| B-16 Additional Fittings | 200 | | S 0.01 S | 2.00 | 0.01 | 2.00 | S 5.00 | S 1,000.00 | S 0.01 S | 2.00 | 0.01 | 2.00 | S 0.01 S | 2.00 | S 0.01 | S 2.00 | 5 1.00 5 | 200.00 | s 0.01 S | 2.00 | | s :: |
| | 5 | lbs. | S 0.01 S | 0.05 5 | 0.01 | 6 0.05 | | S 500.00 | S 0.01 S | | 0.01 | 0.05 | S 100.00 S | 500.00 | S 0.01 | S 0.05 | S 1.00 S | State (1997) | S 0.01 S | 0.05 | | s (|
| | | ca. | 5 0.01 5 | | 0.01] | 0.03 | 5 100.00 | 5 500.00 | | | | | | 300.00 | 5 0.01 | 5 0.05 | 5 1.00 1 3 | 5.00 | 5 0.01 5 | 0.05 | 5 0.01 | |
| B-17 Additional Restrained Joints B-18 Not Used | | | | 0.05 | and the second second second | | | | | 0.00 | COLOR DE LA COL | Contract of the second | | | | THE PARTY DATE IN | 1 | A DESCRIPTION OF | | | | 3 (|

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A red value denotes a clerical error (the actual value that was written in words or the corrected value from a mathmatical error).

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Telephone Log

By:Jacquelyn TupperTalked with:Mr. Steve RichtarikPhone No.:401-333-2382Date:September 18, 2017Time:9:40 AMSubject:Eastham Water Main Construction – Contract 9

Purpose of the call: Reference Check – Celco Construction Corporation

Telephone Conversation:

What project did you work on them with?

Beta Group has worked on many projects, but Mr. Richtarik specifically worked with them on a sewer force main replacement project in Middleborough, Massachusetts. The work included the installation of about 2,000 feet of pipe.

Approximately how much did the project cost? \$450,000

How was their quality of work? It was fantastic. Everyone at Beta Group enjoys working with them.

How was their ability to stay on schedule? They were always on schedule. They're hard-workers who get the job done. They do not nickel and dime the owner/engineer. They were about \$170,000 below any other bid, so they left money on the table.

Was it easy or difficult to work with them? Easy

Notice of Award

Date: _____

| Project: CONTRAC | CT 9 – WATER MAINS – SOUTH COLLE | CTOR ROADS | | | | | | |
|-------------------|----------------------------------|-------------------------------------|--|--|--|--|--|--|
| Owner: Town of Ea | astham, MA | Owner's Contract No.: - | | | | | | |
| Contract: 9 | | Engineer's Project No.: 217-1504.09 | | | | | | |
| Bidder: | Celco Construction Corporation | | | | | | | |
| Bidder's Address: | 38 Mt. Ash Lane | | | | | | | |
| | Pembroke, MA 02359 | | | | | | | |

You are notified that your Bid dated <u>September 14, 2017</u> for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for Contract 9 – Water Mains – South Collector Roads.

The Contract Price of your Contract is <u>Three million, nine hundred ninety thousand, one hundred</u> sixty two, Dollars and <u>forty five</u> Cents (\$ 3,990,162.45).

5 copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

<u>0</u> sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within 10 days of the date you receive this Notice of Award.

- 1. Deliver to the Engineer fully executed counterparts of the Contract Documents.
- 2. Deliver with the executed Contract Documents the Contract security (Bonds) as specified in the Instructions to Bidders, General Conditions, and Supplementary Conditions.
- 3. It is acknowledged that <u>15</u> of your bid prices are abnormally low. It is understood that this will be waived as an informality as to form in your Bid. However you are hereby notified that the unrealistically low unit prices not reflecting the actual cost of the work bars you from any equitable adjustment of unit price bid items described in paragraph 5.1 of Section 00500 of the Contract Documents. The specific bid items of note are: <u>2c, 8, 9, 10, 11a-c, 12a, 12c, 13a, 13c, 14a, 16, 17, and 18</u>.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Contract Documents.

Owner

Title

By:__

Authorized Signature

Copy to Engineer

| EJCDC C-510 Notice of Award | |
|---|---|
| Prepared by the Engineers Joint Contract Documents Committee and endorsed by the Construction Specifications Institute. | |
| Page 1 of 1 | - |

Environmental 😂 Partners

A partnership for engineering solutions.

September 20, 2017

Ms. Jacqueline Beebe, Town Administrator Town of Eastham 2500 State Highway Eastham, MA 02642

Recommendation to Award RE: Contract 10 Water Mains - Central Collector Roads, Eastham, MA 217-1701.10

Dear Ms. Beebe:

Sealed bids for the subject contract were opened on September 19, 2017 at 2:30 p.m. Bids were received from nine contractors. Environmental Partners has checked the bid proposals for completeness and accuracy, in accordance with the Project Documents and the provisions and requirements of M.G.L. Chapter 30, Section 39M. Enclosed is a detailed Bid Tabulation of the bid prices included with each bid. The Bid consists of water main installation and surface restoration on the central collector roads of the water system, including town roadways and privately ways with a water utility taking. Based on our review of the bid prices, RJV Construction Corporation (RJV) is the apparent low bidder, with a total bid price of \$3,434,883.41.

As required by the bid documents, RJV submitted references with their bid. We contacted several of their listed references. One of their references described RJV as "excellent" and "I have nothing but good things to say about them." Another reference emphasized their ability to meet project deadlines, and characterized them as "professional" and "honest." Furthermore, we have a working history with RJV, most recently on Contracts 6 and 8 of the Eastham Water System. Phone logs from the references are attached for your review.

Based on the information provided herein, we have determined that RJV is the lowest responsible and eligible bidder under the provisions of M.G.L. Chapter 30, Section 39M. As a result, we recommend award of Contract 10 Water Mains to RJV Construction Corporation. Therefore, please find enclosed a "Notice of Award" which reflects Environmental Partners' recommendation. If you are in agreement with our recommendation, please sign and date the attached "Notice of Award," and return it to my attention. We will forward the signed Notice of Award to RJV, along with the other contract document requirements. RJV will then have 10 days to sign the contract and return it to the Town for execution.

Hyannis: 396 North Street, Hyannis, MA 02601 TL 508.568.5103 • FX 508.568.5125

Headauarters: 1900 Crown Colony Drive, Suite 402, Quincy, MA 02169 18 Commerce Way, Suite 2000, Woburn, MA 01801 TL 617.657.0200 • FX 617.657.0201

Wohurn: TL 781.281.2542 • FX 781.281.2543

www.envpartners.com

Ms. Jacqueline Beebe September 20, 2017

Please feel free to contact me at (617) 657-0253 or rjt@envpartners.com with any questions or concerns.

Very truly yours, Environmental Partners Group, Inc.

Ryan J. Trahan, P.E. *Principal*

enc. Bid Checklist, Bid Tabulation, Reference Phone Logs, Notice of Award (00510-1)

cc: Neil Andres, Mark White

CONTRACT 10 WATER MAINS - CENTRAL COLLECTOR ROADS 217-1701.10 Eastham, MA

- A red value denotes a clerical error (the actual value that was written in words or the corrected value from a mathmatical error).

| Tu | BID OPENING esday, September 19, 201 | 7 @ 2 | 2:30 pm | | | | | | | | | | | | |
|----|---|-------|-------------------|-------------------|---|--|--------------------------------|-------------|--------------------------------|-------------------------------|--|-----------------------------|--|-----------------------------------|-------------------------|
| | BIDDER | | BASE BID PROPOSAL | Addendum No. 1 | Completed and Signed Bid Proposal | Completed Project Reference List | Diesels Retrofit Program | Bid Bond | Non- Collusive Affidavit | Cert. of Corporate Vote | Cert. as to Payment of State Taxes | OSHA 10 Hour Training | State Debarment Disclosure Form | Bid Certification Statement | DBE Program Forms |
| 1 | RJV Construction Corp. | \$ | 3,434,883.41 | 4 | * | ¥ . | ~ | ~ | 1 | ~ | ~ | ~ | * | × | ~ |
| 2 | C.C. Construction, Inc. | \$ | 3,449,751.50 | ~ | | * | ~ | ~ | 1 | ~ | ~ | * | ~ | | |
| 3 | KJS LLC | \$ | 3,473,898.68 | 1 | ~ | * | ~ | * | ~ | ~ | * | * | * | ~ | |
| 4 | Robert B. Our Co., Inc. | \$ | 3,487,135.50 | 1 | * | * | * | ~ | * | ~ | * | * | 4 | ~ | ~ |
| 5 | RFS Corp. | \$ | 3,646,387.04 | 4 | ~ | * | * | ~ | ~ | ~ | ~ | * | 1 | | |
| 6 | GVC Construction, Inc. | \$ | 3,675,919.00 | 4 | ~ | * | * | ~ | 1 | ~ | * | × . | ~ | | ~ |
| 7 | J.A. Polito & Sons, Inc. | \$ | 3,746,672.50 | * | 1 | ~ | * | ~ | 1 | ~ | × * | ~ | ~ | | |
| 8 | Celco Construction Corporation | \$ | 3,786,518.00 | * | ~ | ~ | ~ | ~ | * | * | ~ | ~ | 1 | 4 | |
| 9 | Revoli Construction Co., Inc. | \$ | 4,063,748.00 | ~ | 1 | ~ | ~ | ~ | * | 1 | ~ | ~ | ~ | ~ | |

Environmental 📨 Partners

CONTRACT 10 WATER MAINS - CENTRAL COLLECTOR ROADS

Town of Eastham

2

Contract Number: 217-1701.10

BASE BID TABULATION, CONTRACT 10 - BID OPENING SEPTEMBER 19, 2017 AT 2:30 P.M.

| ltem . | Bid | Units | 1 | RJV Construct | on Corp. | C.C. Constr | uction, Inc. | KJS LL | c | Robert B. Our | Co., Inc. | RFS Corp. | | GVC Constru | ction, Inc. | J.A. Polito & Sor | ns. Inc. | Celco Construction | Corporation | Revoli Constructio | on Co., Inc. |
|---|-----------------|-------------------|----|---------------|--------------------------|-------------|----------------------------|--------------------|--------------------------|---------------|----------------|----------------|--------------------------|----------------------|-----------------------|-------------------|--------------|--------------------------|--------------|---------------------------|--------------|
| No. | Quantity | Cints | | Canton, M | IA | South Der | nnis, MA | Norwood, MA | | Harwich, | ма | Norfolk, MA | A | Leoministe | er, MA | Shrewsbury, 1 | MA | Pembroke | , MA | Franklin, | ма |
| | | | | it Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price |
| 1 Mobilization and Demobilization | 1 | ls. | S | 116.000.00 S | 116.000.00 S | 100,000,00 | S 100,000.00 S | 40.000.00 S | 40,000,00 S | 72,000.00 S | 72.000.00 | S 75.000.00 S | 75.000.00 S | 170.000.00 5 | 5 170.000.00 S | 50.000.00 S | 50.000.00 | S 15.000.00 S | 15.000.00 | S 170.000.00 S | 170,000.00 |
| 2a 8-inch Ductile-Iron Water Main, Class 50 pipe | 33,000 | lf. | S | 42.00 S | 1.386,000,00 S | 37.95 | S 1.252.350.00 S | 47.00 S | 1.551.000.00 \$ | 43 10 S | 1.422.300.00 | S 52.00 S | 1.716.000.00 S | 40.00 \$ | 5 1.320,000.00 S | 55.00 S | 1.815.000.00 | S 51.00 S | 1.683.000.00 | S 58.00 S | 1.914.000.00 |
| 2b 6-inch Ductile-Iron Water Main. Class 50 pipe | 2,100 | If. | S | 40.00 S | 84.000.00 S | 35.95 | S 75,495,00 S | 44.00 S | 92.400.00 S | 41.95 5 | 88.095.00 | S 47.00 S | 98.700.00 S | 40.00 \$ | 5 84,000,00 S | 55.00 S | 115,500,00 | S 51.00 S | 167,100.00 | S 52.00 S | 109.200.00 |
| 2c Polyethylene Encasement (V-BIO) | 35,100 | lf. | S | 2.00 5 | 70,200,00 S | 1.95 | \$ 68,445.00 S | 1.00 S | 35.100.00 S | 0.95 S | 33.345.00 | S 1.75 S | 61.425.00 S | 0.50 5 | S 17.550.00 S | 1.00 S | 35,100,00 | S 1.00 S | 35,100.00 | S 1.00 S | 35,100.00 |
| 3 8-inch DR11 Directionally Drilled High-Density Polyethylene (HDPE) Water Main | 525 | lf. | S | 110.00 \$ | 57.750.00 S | 179.00 | S 93.975.00 S | 100.00 S | 52,500.00 S | 97.00 S | 50,925.00 | S 135.00 S | 70.875.00 S | 120,00 5 | 63.000.00 S | 160.00 S | 84,000,00 | S 160.00 S | 84,000,00 | S 80.00 S | 42,000.00 |
| 4a 8-inch Gate Valves and Boxes | 89 | ea. | S | 1.200,00 \$ | 106.800.00 S | 1.295.00 | S 115.255.00 S | 1.200.00 S | 106,800.00 \$ | 1.221.00 S | 108.669.00 | S 1,200.00 S | 106,800,00 S | 1,150.00 \$ | S 102.350.00 S | 1.200.00 S | 106.800.00 | S 1.500.00 S | 133,500.00 | S 800.00 S | 71,200,00 |
| 4b 6-inch Gate Valves and Boxes | 79 | ea. | S | 1.000.00 S | 79.000.00 S | 1.095.00 | S 86.505.00 S | 800.00 S | 63.200.00 S | 845.00 S | 66.755.00 | S 850.00 S | 67.150.00 S | 850.00 \$ | 67.150.00 S | 800.00 S | 63.200.00 | S 1.000.00 S | 79,000.00 | S 600.00 S | 47.400.00 |
| 5 Fire Hydrants | 63 | ca. | S | 3.000.00 S | 189.000.00 S | 2.795.00 | S 176,085.00 S | 3.400.00 S | 214,200.00 S | 3.099.00 S | 195.237.00 | \$ 3.200.00 \$ | 201.600.00 S | 2.750.00 \$ | 5 173.250.00 S | 3.000.00 S | 189.000.00 | S 3,500,00 S | 220,500.00 | S 2.500.00 S | 157.500.00 |
| 6a 1-inch service taps, including corporations, fittings, curb stops, and boxes | 353 | ca. | S | 800.00 S | 282.400.00 S | 950.00 | S 335.350.00 S | 800.00 S | 282.400.00 S | 915.00 S | 322.995.00 | S 800.00 S | 282.400.00 S | 1.000.00 \$ | 5 353,000,00 S | 600.00 S | 211.800.00 | S 900.00 S | 317,700,00 | S 950.00 S | 335.350.00 |
| 6b 1-1 2-inch service taps, including corporations, fittings, curb stops, and boxes | 11 | ca, | S | 1.000.00 S | 11.000.00 S | 1.250.00 | S 13.750.00 S | 1.500.00 S | 16,500,00 S | 1.360.00 5 | 14.960.00 | S 1.475.00 S | 16.225.00 S | 1.000.00 \$ | 5 11.000.00 S | 1.000.00 S | 11.000.00 | S 1.500.00 S | 16.500.00 | S 95.00 S | 1.045.00 |
| 6e 2-inch service taps, including corporations, fittings, curb stops, and boxes | 3 | ca. | S | 1.500.00 S | 4.500.00 S | 1.750.00 | S 5.250.00 S | 2.000.00 S | 6.000.00 S | 1.830.00 S | 5,490.00 | S 0.01 S | 0.03 S | 1.000.00 \$ | 3.000.00 S | 1.200.00 S | 3.600.00 | S 2.000.00 S | 6,000,00 | S 2,500,00 S | 7.500.00 |
| 6d 1-inch blow-off connections | 1 | cə. | S | 1.500,00 S | 1.500.00 S | 1.500.00 | S 1.500.00 S | 900.00 S | 900.00 S | 1.100.00 S | 1,100.00 | S 2.800.00 S | 2.800.00 S | 1.000.00 \$ | 5 1,000,00 S | 1.000.00 S | 1.000.00 | S 1.000,00 S | 1,000,00 | S 1.975.00 S | 1.975.00 |
| 7a 1-inch polyethylene (PE) tubing | 8,300 | lí. | S | 20.00 S | 166,000,00 \$ | 17.00 | S 141,100.00 S | 23.00 S | 190,900.00 S | 8.00 S | 66,400,00 | S 24.00 S | 199.200.00 S | 20.00 S | 5 166.000.00 S | 20.00 S | 166.000.00 | S 25.00 S | 207,500.00 | S 25.00 S | 207,500.00 |
| 7b 1-1 2-inch polyethylene (PE) tubing | 350 | lf. | S | 20.00 S | 7.000.00 S | 19.00 | S 6.650.00 S | 11.00 S | 3.850,00 S | 10.00 S | 3.500.00 | S 30.00 S | 10.500.00 S | 20.00 \$ | 7.000.00 S | 20.00 S | 7.000.00 | S 35.00 S | 12.250.00 | S 25.00 S | 8.750.00 |
| 7c 2-inch polyethylene (PE) tubing | 300 | lf. | S | 20.00 S | 6.000.00 S | 21.00 | S 6.300.00 S | 23.00 S | 6.900.00 S | 15.00 S | 4,500,00 | S 40.00 S | 12.000.00 S | 20.00 S | 6.000.00 S | 20.00 S | 6.000.00 | S 50,00 S | 15,000.00 | S 75.00 S | 22,500.00 |
| 8 Exploratory Excavations | 500 | cy. | S | 0.01 \$ | 5.00 S | 0.01 | | 0.01 S | 5.00 S | 0.01 S | 5.00 \$ | S 0.01 S | 5.00 S | 0.01 S | 5.00 S | 0.01 \$ | 5.00 | S 0.01 S | 5.00 | S 0.01 S | 5.00 |
| 9 Rock Excavation | 525 | cy. | S | 0.01 S | 5.25 S | 0.01 | S 5.25 S | 0.01 S | 5.25 S | 0.01 S | 5.25 5 | S 0.01 S | 5.25 S | 0.01 S | 5.25 S | 0.01 S | 5.25 | S 0.01 S | 5.25 | S 0.01 S | 5.25 |
| 10 Additional Excavation | 650 | cy. | S | 0.01 \$ | 6.50 S | 0.01 | S 6.50 S | 0.01 S | 6.50 S | 0.01 S | 6.50 5 | S 0.01 S | 6.50 S | 0.01 S | 6.50 S | 0.01 S | 6.50 | S 0.01 S | 6.50 | S · 0.01 S | 6.50 |
| 11a Gravel Berrew | 5.200 | cy, | S | 0.01 S | 52.00 S | 0.01 | S 52.00 S | 0.01 \$ | 52.00 S | 0.01 \$ | 52.00 | 5 0.01 S | 52.00 5 | 0.01 5 | 52.00 5 | 0.01 \$ | 52.00 | S 0.01 S | 52.00 | S 0.01 S | 52.00 |
| 11b Processed Gravel | 7.375 | cy. | S | 0.01 S | 73.75 S | 0.01 | S 73.75 S | 0.01 \$ | 73.75 S | 12.00 S | 88,500,00 5 | 5 0.01 5 | 73.75 S | 0.01 S | 73.75 S | 0.01 S | 73 75 | S 0.01 S | 73.75 | S 0.01 S | 73.75 |
| 11c Crushed Stone | 425 | ¢ì. | S | 0.01 S | 4.25 S | 0.01 | S 4.25 S | 0.01 S | 4.25 S | 0.01 5 | 4.25 5 | 5 0.01 S | 4.25 S | 0.01 5 | 4.25 S | 0.01 \$ | 4.25 | S 0.01 S | 4.25 | S 0.01 S | 4.25 |
| 12a Trench Pavement (2" Depth) | 7.050 | s <u></u> , | S | 0.01 S | 70.50 S | 23.00 | S 162.150.00 S | 16.00 S | 112.800.00 S | 0.01 5 | 70.50 | 5 0.01 S | 70.50 S | 15.50 S | 109.275.00 S | 17.00 S | 119.850.00 | S 0.01 S | 70.50 | S 0.01 S | 70.50 |
| 12b Not Used | | 10,000 | | A STATE IS | | | | Land States of | | | | | 14 (14 A | | and the second second | | | | A CONTRACTOR | | |
| 12c Trench Pavement (4" Depth) | 14.100 | s <u>y</u> . | S | 35.00 S | 493,500.00 S | 32.00 | | 31.00 S | 437.100.00 S | 39.90 S | 562.590.00 5 | | 451.200.00 S | 33.00 S | | 30.00 5 | 423,000.00 | S 40.00 S | 564,000,00 | S 37.00 S | |
| 12d Pavement repairs, sidewalks, parking lots, driveways | 175 | sy. | S | 50.00 S | 8.750.00 S | 43.00 | S 7.525.00 S | 0.01 S | 1.75 S | 41.00 S | 7.175.00 \$ | 5 35.00 S | 6.125.00 S | 47.25 S | 8.268.75 S | -40,00 S | 7.000.00 | S 40.00 S | 7.000.00 | S 40.00 S | 7,000.00 |
| 12e 12-inch Overcut, 1-1/2" Mill and Pavement Overlay | 9.200 | s <u></u>]. | S | 18.00 S | 165.600.00 S | 13.95 | | 13.00 S | 119.600.00 S | 24.50 S | 225.400.00 5 | 5 13.00 S | 119,600,00 S | 23.75 S | 218.500.00 S | 14.00 S | 128,800,00 | S 13.00 S | 119,600,00 | S 25.00 S | 230,000,00 |
| 12f 2-inch Pavement Overlay 12g Cape Cod Berm Replacement | 1.075 | sy. | 5 | 18.00 S | 19.350.00 S | 17.00 | S 18.275.00 S | 23.00 S | 24.725.00 S | 23.17 S | 24.907.75 \$ | 5 14.00 S | 15.050.00 S | 22.50 5 | 24.187.50 S | 17.00 S | 18.275.00 | S 20.00 S S 5.00 S | 21,500.00 | S 25.00 S | 26.875.00 |
| 12g Cape Cod Bern Replacement 12h Modified Asphalt-Fiber Crackfiller | 700 | If. | 5 | 5.00 S | 3.500.00 S | 7.00 | S 4.900.00 S | 5.00 S | 3.500.00 S | 1.90 S | 1.330.00 \$ | 5 5.00 S | 3.500.00 S | 2.00 S | 1.400.00 S | 8.00 S | | | | 5 6.00 S | 7,300.00 |
| 13a Traffic Management | | gal. | 5 | | 51.100.00 S | 9.00 | S 32.850.00 S | 12.50 S | 45.625.00 S | 12.49 S | 45.588.50 \$ | 5 12.50 S | 45.625.00 S | 12.50 S | 45.625.00 S | 13.00 S | 47.450.00 | S 12.50 S | 45.625.00 | 5 2.00 S 5 75.000.00 S | 7.300,00 |
| 13b Portable Changeable Message Sign | | ls. | 5 | 10.000.00 S | 2 00.000.01 | 20,000.00 | S 20.000.00 S | 0.01 S 800.00 S | 0.01 \$ | 1,000,00 S | 1.000.00 \$ | 0.01 S | 0.01 S | 0.01 S | 0.01 S 8.000.00 S | 10.000.00 S | 10.000.00 | S 1.00 S | 1.00 | | 5.000.00 |
| 136 Portable Changeable Message Sign 13c 4-inch Pavement Markings | 3,500 | month If. | 5 | 800.00 S | 3.200.00 S 3.500.00 S | 495.00 | S 1.980.00 S | | 3.200.00 S 3.500.00 S | 700.00 S | 2.800.00 S | 5 750.00 S | 3,000,00 S 3,500,00 S | 2.000.00 S 0.45 S | 8,000,00 S | 700.00 S | 2,800,00 | S 1.000.00 S S 1.00 S | 4,000,00 | 5 1.250.00 S 5 0.75 S | 2,625.00 |
| 13c 4-inch Pavement Markings | 3.500 | 11. If | 13 | 1.00 S | 200.00 S | 1.00 | S 3.500.00 S S 120.00 S | 1.00 5 | 3.500.00 S | 1.00 S | 3,500,00 5 | 1.00 S | 3,500,00 \$ | 0.45 S | 1.575.00 5 | 1.00 S | 2.000.00 | <u>S 500 S</u> | 3,500.00 | 5 0.75 S | 2.625.00 |
| 14a Loam and Seed | 3,400 | 11. | 5 | 6.00 S | 20,400,00 \$ | 4.00 | S 13.600.00 S | 0.01 5 | 34.00 \$ | | 360.00 5 | 0.01 S | 34.00 S | 5.00 S | 17,000,00 S | 5.00 \$ | 17,000,00 | S 0.01 S | 34.00 | 5 4.00 S | 13,600.00 |
| 14b Blue stone, Washed stone, and Sea-shell Roadways | 700 | 5) | 10 | 12.00 \$ | 8 400 00 5 | 19.00 | S 13.000.00 S | 8.00 S | 5,600.00 \$ | 0.01 5 | 4.900.00 \$ | 8.00 S | 5.600.00 \$ | 6.50 \$ | 4.550.00 \$ | 20.00 \$ | 14.000.00 | <u>s 0.01 s</u> | 9 100 00 | 5 4.00 S | 24,500,00 |
| 140 brue stone, washed stone, and sea-shell readways 15a Erosion Control Devices - Filter Sock | 7,500 | <u>sy.</u> If. | c | 6.00 5 | 45 000 00 5 | 9.00 | S 67 500 00 S | 6.00 S | 45 000 00 5 | 4.90 \$ | 4.900.00 S | 6.00 S | 45,000,00 S | 6.50 5 | 45.000.00 \$ | 6.50 5 | 48,750.00 | S 6.00 S | 45,000,00 | 5 <u>33.00</u> S | 24.500,00 |
| 154 Elosion Control at Catch Basins – Silt Sacks | 41 | ea. | s | 0.01 \$ | 45,000,00 S 0,41 S | 9.00 | S 7.339.00 S | 0.01 S | 45,000.00 \$ | 4.90 S | 2.870.00 \$ | 45.00 5 | 1.845.00 5 | 245.00 \$ | 45,000,00 S | 85.00 \$ | 3,485,00 | S 75.00 S | 3,075,00 | 5 50.00 S | 2.050.00 |
| 16 Additional Fittings | 1.500 | ea. Ibs. | 5 | 0.01 5 | 15.00 \$ | 0.01 | | 0.01 5 | 15.00 \$ | 0.01 5 | 2.870,00 \$ | 45.00 S | 1.845.00 \$ | 0.01 \$ | 10.045.00 5 | 0.01 \$ | 15.00 | S 0.01 S | 15.00 | S 0.00 S | 15.00 |
| 17 Additional Restrained Joints | 75 | ea. | s | 0.01 5 | 0,75 S | 0.01 | S 0.75 S | 0.01 5 | 0,75 \$ | 0.01 5 | 0.75 \$ | 0.01 5 | 0.75 \$ | 0.01 5 | 0.75 \$ | 0.01 5 | 0.75 | S 0.01 S | 0.75 | S 0.01 S | 0.75 |
| 18 Water Main Culvert Crossing | | ea. | s | 15 000 00 5 | 15.000.00 S | 19 000 00 | S 19.000.00 S | 10.000.00 5 | 10.000.00 \$ | 18.000.00 \$ | 18 000 00 5 | 10.000.00 S | 10.000.00 \$ | 5.500.00 \$ | 5.500.00 S | 5 000 00 \$ | 5.000.00 | S 20.000.00 S | 20.000.00 | 5 7 500.00 5 | 7.500.00 |
| 19 Miscellaneous Items | - + + + | is. | - | 20 000 00 5 | 20.000.00 S | 20.000.00 | S 20.000.00 S | 0.01 \$ | 0.01 \$ | 5.000.00 \$ | 5.000.00 \$ | 15.000.00 S | 15.000.00 \$ | 167,140,24 S | 167.140.24 S | 25,000,00 S | 25.000.00 | S 7.000.00 S | 7.000.00 | 5 5,000,00 S | 5.000.00 |
| · provening BUID | | 15. | | 20,000,00 3 | 20,000,00 3 | 20,000,00 | 2 20,000,00 S | 0.01 5 | 0.01 5 | 5,000,00 5 | 5,000,00 5 | 15,000,00 5 | 15,000,00 3 | 107,140,24 3 | 107,140,24 3 | 25.000.00 5 | 25,000,000 | 5 7,000,00 [5 | 7,000,00 | 3 2,000,00 3 | 5,000,00 |
| | REPORTED BASE F | BID TOTA | LS | | 3.434.883.41 S | | 3.449.751.50 S | | 3.473.898.68 S | | 3.487.135.50 S | | 3.646.387.04 S | | 3.675.919.00 S | | 3.746.672.50 | S | 3,786,518 00 | 5 | 4,063,748.00 |
| · CA | LCULATED BASE F | BID TOTA | LS | | 3.434.883.41 S | | 3.449.751.50 S | | 3.473.898.68 S | | 3.487.135.50 S | | 3.646.387.04 \$ | | 3.675.919.00 S | | 3,746.672.50 | S | 3,786,518.00 | 5 | 4,063,748.00 |

- A red value denotes a clerical error (the actual value that was written in words or the corrected value from a mathmatical error).

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Page 1 of 1

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Telephone Log

By: Jacquelyn Tupper

Talked with: Ms. Irene McSweeney, P.E.

Phone No.: 617-989-7000

 Date:
 September 20, 2017

 Time:
 9:45 AM

Subject: Eastham Water Main Construction – Contract 10

Purpose of the call: Reference Check – RJV Construction Corporation

Telephone Conversation Notes:

How was their quality of work?

Very good. RJV has done approximately 100 million dollars in work for the Boston Water and Sewer, and all types of projects: water, sewer, drain, deep, shallow, easy, and complicated.

Were they able to stay on schedule? Yes

Were they easy or difficult to work with? Easy

How were they with change order? Good, they were minimal. One was very big, but they were good.

Would you recommend them? Yes

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Telephone Log

By: Jacquelyn Tupper

Talked with: Mr. Nicholas Corvello, P.E.

Phone No.: 401-333-2382

 Date:
 September 20, 2017

 Time:
 9:50 AM

Subject: Eastham Water Main Construction – Contract 10

Purpose of the call: Reference Check – RJV Construction Corporation

Telephone Conversation Notes:

What project did you work on them with? A project in Framingham on Union Avenue, utility improvements

Approximately how much did the project cost? \$6.5 million

How was their quality of work? Excellent

Was it easy or difficult to work with them? Very easy

How was their ability to stay on schedule? Yes

How were they will change orders? Good, there were multiple, but they were all owner driven

Would you recommend them? Absolutely, yes. The job started in July of 2016, and they are one of the better contractors out there. I have nothing but good things to say about them.

Quincy, MA • Woburn, MA • Middletown, CT • Hyannis, MA

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Telephone Log

| By: Jacque | lyn Tupper |
|----------------|---|
| Talked with: | Antonio Bonilla |
| Phone No.: | 401-457-0337 |
| Date: Time: | September 20, 2017 10:00 AM |
| Subject: | Eastham Water Main Construction – Contract 10 |

Purpose of the call: Reference Check – RJV Construction Corporation

Telephone Conversation Notes:

What project did you work on them with?

A project in Lowell on Marginal Street, a drainage and sewer separation project, included pipe jacking under a railroad, 24" RCP pipe, LRT section

Approximately how much did the project cost? \$2.1 million

How was their quality of work? Excellent

How was their ability to stay on schedule? Excellent. We had a super aggressive schedule, and they went above and beyond. They submitted their shop drawings before the contract was even signed. The project never would have been completed on time without them.

Was it easy or difficult to work with them? Very easy

How were they will change orders? Yes, absolutely. There were a couple, but for good reason.

Would you recommend them? Yes. They are an a-league contractor. They have their act together, and are professional and honest. Querino Pacilla is a class act. If I had to choose two or three contractors to work with, they would be one of them.

Quincy, MA • Woburn, MA • Middletown, CT • Hyannis, MA

Notice of Award

Date: _____

| L COLLECTOR ROADS | | | | | |
|-------------------------------------|--|--|--|--|--|
| Owner's Contract No.: - | | | | | |
| Engineer's Project No.: 217-1702.10 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

You are notified that your Bid dated <u>September 19, 2017</u> for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for Contract 10 – Water Mains – Central Collector Roads.

The Contract Price of your Contract is <u>Three million, four hundred thirty-four thousand, eight hundred eight-three</u>, Dollars and <u>forty-one</u> Cents (<u>\$ 3,434,883.41</u>).

5 copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

0 sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within 10 days of the date you receive this Notice of Award.

- 1. Deliver to the Engineer fully executed counterparts of the Contract Documents.
- 2. Deliver with the executed Contract Documents the Contract security (Bonds) as specified in the Instructions to Bidders, General Conditions, and Supplementary Conditions.
- 3. It is acknowledged that <u>9</u> of your bid prices are abnormally low. It is understood that this will be waived as an informality as to form in your Bid. However you are hereby notified that the unrealistically low unit prices not reflecting the actual cost of the work bars you from any equitable adjustment of unit price bid items described in paragraph 5.1 of Section 00500 of the Contract Documents. The specific bid items of note are: <u>8, 9, 10, 11a, 11b, 11c, 15b, 16, and 17</u>.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Contract Documents.

Owner

By:__

Authorized Signature

Title

Copy to Engineer

| EJCDC C-510 Notice of Award |
|---|
| Prepared by the Engineers Joint Contract Documents Committee and endorsed by the Construction Specifications Institute. |
| Page 1 of 1 |

Environmental 22 Partners

A partnership for engineering solutions.

September 26, 2017

Ms. Jacqueline Beebe, Town Administrator Town of Eastham 2500 State Highway Eastham, MA 02642

RE: Recommendation to Award Contract 11 Water Mains – North Collector Roads, Eastham, MA 217-1701.11

Dear Ms. Beebe:

Sealed bids for the subject contract were opened on September 21, 2017 at 2:30 p.m. Bids were received from eight contractors. Environmental Partners has checked the bid proposals for completeness and accuracy, in accordance with the Project Documents and the provisions and requirements of M.G.L. Chapter 30, Section 39M. Enclosed is a detailed Bid Tabulation of the bid prices included with each bid. The Bid consists of water main installation and surface restoration on the north collector roads of the water system, including town roadways and privately ways with a water utility taking. Based on our review of the bid prices, GVC Construction, Inc. (GVC) is the apparent low bidder, with a total bid price of \$3,158,621.19.

As required by the bid documents, GVC submitted references with their bid. We contacted all four of their listed references. One of their references described GVC as "easy to get along with." Another reference would "absolutely" recommend them, and said that "there were never any issues with them." Phone logs from the references are attached for your review.

Based on the information provided herein, we have determined that GVC is the lowest responsible and eligible bidder under the provisions of M.G.L. Chapter 30, Section 39M. As a result, we recommend award of Contract 11 Water Mains to GVC Construction, Inc. Therefore, please find enclosed a "Notice of Award" which reflects Environmental Partners' recommendation. If you are in agreement with our recommendation, please sign and date the attached "Notice of Award," and return it to my attention. We will forward the signed Notice of Award to GVC, along with the other contract document requirements. GVC will then have 10 days to sign the contract and return it to the Town for execution.

www.envpartners.com

Please feel free to contact me at (617) 657-0253 or rjt@envpartners.com with any questions or concerns.

Very truly yours, Environmental Partners Group, Inc.

16

Ryan J. Trahan, P.E. *Principal*

enc. Bid Checklist, Bid Tabulation, Reference Phone Logs, Notice of Award (00510-1)

cc: Neil Andres, Mark White



CONTRACT 11 WATER MAINS - NORTH COLLECTOR ROADS 217-1701.11 Eastham, MA

- A red value denotes a clerical error (the actual value that was written in words or the corrected value from a mathmatical error).

| Th | BID OPENING ursday, September 21, 20 | 17 @ 2:30 pm | | - | | | | | | | | | 1 | |
|----|---|-------------------|-------------------|---|--|--------------------------------|-------------|--------------------------------|-------------------------------|--|-----------------------------|--|-----------------------------------|-------------------------|
| | BIDDER | BASE BID PROPOSAL | Addendum No. 1 | Completed and Signed Bid Proposal | Completed Project Reference List | Diesels Retrofit Program | Bid Bond | Non- Collusive Affidavit | Cert. of Corporate Vote | Cert. as to Payment of State Taxes | OSHA 10 Hour Training | State Debarment Disclosure Form | Bid Certification Statement | DBE Program Forms |
| 1 | GVC Construction, Inc. | \$ 3,158,621.19 | · · | * | ~ | 1 | 1 | 1 | 1 | ~ | 1 | * | ~ | ~ |
| 2 | Robert B. Our Co., Inc. | \$ 3,177,699.50 | · · | * | ~ | 1 | 1 | 1 | ~ | ~ | 1 | ✓ | 1 | 1 |
| 3 | RFS Corp. | \$ 3,356,170.59 | · · | * | ~ | ~ | 1 | 1 | 1 | ~ | 1 | ✓ | | |
| 4 | J.A. Polito & Sons, Inc. | \$ 3,394,408.00 | × | * | ~ | ✓ | 1 | 1 | ~ | ~ | √ | ✓ | | |
| 5 | C.C. Construction, Inc. | \$ 3,397,000.00 | ~ | 1 | ~ | 1 | ~ | 4 | ~ | ~ | 4 | 4 | | |
| 6 | RJV Construction Corp. | \$ 3,718,126.47 | × | 1 | ~ | 1 | ~ | 1 | √ | 1 | √. | 1 | ~ | |
| 7 | R&D Site Development, LLC | \$ 3,800,339.12 | ~ | 1 | ~ | 1 | ~ | 1 | | ✓ | 1 | 1 | | |
| 8 | Celco Construction Corporation | \$ 4,045,412.00 | ~ | 1 | ~ | ✓ | 1 | 1 | ~ | ✓ | 1 | 1 | √ | |

CONTRACT 11 WATER MAINS - NORTH COLLECTOR ROADS

Town of Eastham

Contract Number: 217-1701.11

BASE BID TABULATION, CONTRACT 10 - BID OPENING SEPTEMBER 21, 2017 AT 2:30 P.M.

| Item | | Bid | Units | GVC Cons | truction, Inc. | Robert B. O | ur Co., Inc. | RFS C | Corp. | J.A. Polito é | è Sons, Inc. | C.C. Constructi | on, Inc. | RJV Construc | ction Corp. | R&D Site Develo | opment, LLC | Celco Constructi | on Corporation |
|------------|--|---------------|-------------|----------------------------|--|---|----------------------------|----------------------|----------------------------|---------------------|-----------------------------|----------------------------|--------------|---------------------------|---------------------|---------------------------|----------------|---------------------|---------------------------|
| No. | | Quantity | | Leomi | ister, MA | Harwic | h, MA | Norfoll | c, MA | Shrewsb | ury, MA | South Dennis | , MA | Canton, MA | | Groveland, MA | | Pembroke, MA | |
| | | | | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price | Unit Price | Total Price |
| 1 | Mobilization and Demobilization | 1 | ls. | \$ 40,000.00 | • | \$ 64,000.00 | \$ 64,000.00 | \$ 75,000.00 | \$ 75,000.00 | \$ 50,000.00 | \$ 50,000.00 | \$ 100,000.00 \$ | 100,000.00 | \$ 150,000.00 | \$ 150,000.00 | \$ 125,000.00 \$ | 5 125,000.00 | \$ 20,000.00 | \$ 20,000.00 |
| | 8-inch Ductile-Iron Water Main, Class 50 pipe | 33,200 | lf. | \$ 42.00 | | \$ 40.00 | \$ 1,328,000.00 | \$ 40.00 | \$ 1,328,000.00 | \$ 50.00 | \$ 1,660,000.00 | \$ 37.95 \$ | 1,259,940.00 | \$ 48.00 | \$ 1,593,600.00 | \$ 52.00 \$ | 5 1,726,400.00 | \$ 60.00 | \$ 1,992,000.00 |
| | 6-inch Ductile-Iron Water Main, Class 50 pipe | 2,750 | lf. | \$ 42.00 | | \$ 39.00 | \$ 107,250.00 | \$ 47.00 | \$ 129,250.00 | \$ 50.00 | \$ 137,500.00 | \$ 35.95 \$ | 98,862.50 | \$ 46.00 | \$ 126,500.00 | \$ 50.00 \$ | 137,500.00 | \$ 58.00 | \$ 159,500.00 |
| 2c | | 30,200 | lf. | \$ 1.00 | | \$ 1.25 | | \$ 1.75 | \$ 52,850.00 | \$ 1.00 | \$ 30,200.00 | \$ 1.95 \$ | 58,890.00 | \$ 2.00 | \$ 60,400.00 | \$ 1.00 \$ | 30,200.00 | \$ 1.00 | \$ 30,200.00 |
| 3 | , | 725 | lf. | \$ 100.00 | | \$ 89.00 | \$ 64,525.00 | \$ 135.00 | \$ 97,875.00 | \$ 150.00 | \$ 108,750.00 | \$ 179.00 \$ | 129,775.00 | \$ 110.00 | \$ 79,750.00 | \$ 100.00 \$ | 72,500.00 | \$ 140.00 | \$ 101,500.00 |
| 4a | | 102 | ea. | \$ 1,000.00 | | \$ 1,195.00 | \$ 121,890.00 | \$ 1,200.00 | \$ 122,400.00 | \$ 1,200.00 | \$ 122,400.00 | \$ 1,100.00 \$ | 112,200.00 | \$ 1,200.00 | \$ 122,400.00 | \$ 1,500.00 \$ | 153,000.00 | \$ 1,500.00 | \$ 153,000.00 |
| 4b | 6-inch Gate Valves and Boxes | 82 | ea. | \$ 800.00 | | \$ 844.00 | | \$ 850.00 | \$ 69,700.00 | \$ 800.00 | \$ 65,600.00 | \$ 950.00 \$ | 77,900.00 | \$ 1,000.00 | \$ 82,000.00 | \$ 1,000.00 \$ | 82,000.00 | \$ 1,000.00 | \$ 82,000.00 |
| 5 | Fire Hydrants | 68 | ea. | \$ 2,800.00 | A AND AND AND A | \$ 3,075.00 | | \$ 3,200.00 | \$ 217,600.00 | \$ 3,000.00 | \$ 204,000.00 | \$ 3,000.00 \$ | 204,000.00 | \$ 3,000.00 | \$ 204,000.00 | \$ 3,000.00 \$ | 204,000.00 | \$ 3,500.00 | \$ 238,000.00 |
| 6a | 1, 5, 1, 5, | 368 | ea. | \$ 1,000.00 | • | \$ 899.00 | \$ 330,832.00 | \$ 800.00 | \$ 294,400.00 | \$ 600.00 | \$ 220,800.00 | \$ 900.00 \$ | 331,200.00 | \$ 800.00 | \$ 294,400.00 | \$ 1,100.00 \$ | 404,800.00 | \$ 1,000.00 | \$ 368,000.00 |
| 6b | · ··· men eer nee mpe, men ang eer permene, minge, ene ere pe, eene | 22 | ea. | \$ 1,200.00 | | \$ 1,100.00 | \$ 24,200.00 | \$ 1,475.00 | \$ 32,450.00 | \$ 1,000.00 | \$ 22,000.00 | \$ 1,350.00 \$ | 29,700.00 | \$ 1,000.00 | \$ 22,000.00 | \$ 1,100.00 \$ | 24,200.00 | \$ 1,500.00 | \$ 33,000.00 |
| | 2-inch service taps, including corporations, fittings, curb stops, and boxes | 9 | ea. | \$ 1,500.00 | | \$ 1,730.00 | \$ 15,570.00 | \$ 1,850.00 | \$ 16,650.00 | \$ 1,200.00 | \$ 10,800.00 | \$ 1,750.00 \$ | 15,750.00 | \$ 1,500.00 | \$ 13,500.00 | \$ 1,100.00 \$ | 9,900.00 | \$ 2,000.00 | \$ 18,000.00 |
| | 1-inch blow-off connections | 1 | ea. | \$ 750.00 | | \$ 1,350.00 | \$ 1,350.00 | \$ 900.00 | \$ 900.00 | \$ 1,000.00 | \$ 1,000.00 | \$ 1,500.00 \$ | 1,500.00 | \$ 1,500.00 | \$ 1,500.00 | \$ 1.00 \$ | 1.00 | \$ 1,000.00 | \$ 1,000.00 |
| 7a | | 7,700 | lf. | \$ 19.00 | | \$ 10.00 | \$ 77,000.00 | \$ 24.00 | \$ 184,800.00 | \$ 20.00 | \$ 154,000.00 | \$ 15.00 \$ | 115,500.00 | \$ 20.00 | \$ 154,000.00 | \$ 5.00 \$ | 38,500.00 | \$ 20.00 | \$ 154,000.00 |
| | 1-1/2-inch polyethylene (PE) tubing | 425 | lf. | \$ 19.00 | 10 00 00 00 00 00 00 00 00 00 00 00 00 0 | \$ 12.00 | \$ 5,100.00 | \$ 30.00 | \$ 12,750.00 | \$ 20.00 | \$ 8,500.00 | \$ 17.00 \$ | 7,225.00 | \$ 20.00 | \$ 8,500.00 | \$ 10.00 \$ | 4,250.00 | \$ 35.00 | \$ 14,875.00 |
| | 2-inch polyethylene (PE) tubing | 900 | lf. | \$ 19.00 | | \$ 15.00 | \$ 13,500.00 | \$ 40.00 | \$ 36,000.00 | \$ 20.00 | \$ 18,000.00 | \$ 19.00 \$ | 17,100.00 | \$ 20.00 | \$ 18,000.00 | \$ 20.00 \$ | 18,000.00 | \$ 50.00 | \$ 45,000.00 |
| _ | Exploratory Excavations | 500 | cy. | \$ 0.01 | ANY DEBITI INC. | | \$ 5.00 | | \$ 5.00 | \$ 0.01 | COLORAD POLICI | \$ 0.01 \$ | 5.00 | \$ 0.01 3 | | \$ 0.01 \$ | 5.00 | \$ 0.01 | \$ 5.00 |
| - | Rock Excavation | 525 | cy. | \$ 0.01 | | | | | | \$ 0.01 | | \$ 0.01 \$ | 5.25 | \$ 0.01 5 | | \$ 0.01 \$ | 5.25 | | \$ 5.25 |
| | Additional Excavation | 650 | cy. | \$ 0.01 | | | | | | \$ 0.01 | | \$ 0.01 \$ | 6.50 | \$ 0.01 5 | | \$ 0.01 \$ | 6.50 | | \$ 6.50 |
| | Gravel Borrow | 5,100 | cy. | \$ 0.01 | | | | | | \$ 0.01 | \$ 51.00 | \$ 0.01 \$ | 51.00 | \$ 0.01 | | \$ 0.01 \$ | 51.00 | \$ 0.01 | \$ 51.00 |
| 11b | | 10,000 | cy. | \$ 0.01 | | \$ 0.01 | | \$ 0.01 | | \$ 0.01 | \$ 100.00 | \$ 0.01 \$ | 100.00 | \$ 0.01 5 | | \$ 15.00 \$ | 150,000.00 | | \$ 100.00 |
| | Crushed Stone | 450 | cy. | \$ 0.01 | (C) (C) | 1 (11) (11) (11) (11) (11) (11) (11) (1 | A (222.2 | | \$ 4.50 | \$ 0.01 | \$ 4.50 | \$ 0.01 \$ | 4.50 | \$ 0.01 5 | SNSS3182 | \$ 0.01 S | 4.50 | | \$ 4.50 |
| | Trench Pavement (2" Depth) | 6,800 | sy. | \$ 0.01 | 200.002.001 | \$ 19.00 | \$ 129,200.00 | \$ 16.00 | \$ 108,800.00 | \$ 12.00 | \$ 81,600.00 | \$ 23.00 \$ | 156,400.00 | \$ 0.01 5 | 0 | \$ 20.00 \$ | 136,000.00 | \$ 0.01 | \$ 68.00 |
| | Trench Pavement (3" Depth) | 1,750 | sy. | \$ 25.00 | 4 | \$ 31.59 | \$ 55,282.50 | \$ 26.00 | \$ 45,500.00 | \$ 17.00 | \$ 29,750.00 | \$ 32.00 \$ | 56,000.00 | \$ 35.00 \$ | 61,250.00 | \$ 30.00 \$ | 52,500.00 | \$ 35.00 | \$ 61,250.00 |
| 12c | Trench Pavement (4" Depth) | 6,250 | sy. | \$ 35.00 | | \$ 39.50 | \$ 246,875.00 | \$ 32.00 | \$ 200,000.00 | \$ 20.00 | \$ 125,000.00 | \$ 41.00 \$ | 256,250.00 | \$ 40.00 \$ | \$ 250,000.00 | \$ 40.00 \$ | 250,000.00 | \$ 40.00 | \$ 250,000.00 |
| | Pavement repairs, sidewalks, parking lots, driveways | 200 | sy. | \$ 40.00 | | \$ 41.00 | \$ 8,200.00 | \$ 0.01 | \$ 2.00 | \$ 40.00 | \$ 8,000.00 | \$ 43.00 \$ | 8,600.00 | \$ 50.00 \$ | \$ 10,000.00 | \$ 1.00 \$ | 200.00 | \$ 40.00 | \$ 8,000.00 |
| 12e | | 3,100 | sy. | \$ 19.00 | | \$ 14.00 | \$ 43,400.00 | \$ 22.00 | \$ 68,200.00 | \$ 14.00 | \$ 43,400.00 | \$ 13.95 \$ | 43,245.00 | \$ 18.00 \$ | \$ 55,800.00 | \$ 11.00 \$ | 34,100.00 | \$ 20.00 | \$ 62,000.00 |
| | 2-inch Pavement Overlay | 6,550 | sy. | \$ 15.00 \$ 2.00 | | \$ 13.43 | | | \$ 144,100.00 | | \$ 111,350.00 | \$ 17.00 \$ | 111,350.00 | | 5 104,800.00 | \$ 11.00 \$ | 72,050.00 | \$ 18.00 | \$ 117,900.00 |
| | Cape Cod Berm Replacement | | lf. | - | | \$ 3.00 | | \$ 5.00 | \$ 8,250.00 | \$ 8.00 | \$ 13,200.00 | \$ 7.00 \$ | 11,550.00 | | \$ 8,250.00 | \$ 5.00 \$ | 8,250.00 | \$ 5.00 | \$ 8,250.00 |
| | Modified Asphalt-Fiber Crackfiller | 2,550 | gal. | \$ 13.00 | | \$ 12.45 | | \$ 12.50 | \$ 31,875.00 | \$ 13.50 | \$ 34,425.00 | \$ 13.95 \$ | 35,572.50 | | 35,700.00 | \$ 1.00 \$ | 2,550.00 | \$ 13.50 | \$ 34,425.00 |
| | Traffic Management | 1 | ls. | \$ 5,000.00 \$ 1,000.00 | | \$ 8,000.00 \$ 650.00 | \$ 8,000.00 \$ 2.600.00 | \$ 0.01 \$ 800.00 | \$ 0.01 \$ 3.200.00 | , | \$ 10,000.00 | \$ 15,000.00 \$ | 15,000.00 | \$ 10,000.00 | 5 10,000.00 | \$ 0.01 \$ | 0.01 | \$ 1.00 | \$ 1.00 |
| 13b | Portable Changeable Message Sign | 4 3,600 | month | | | 2.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | \$ 2,600.00 \$ 3,600.00 | | \$ 3,200.00 \$ 3.600.00 | \$ 700.00 | \$ 2,800.00 \$ 3,600.00 | \$ 495.00 \$ | 1,980.00 | \$ 800.00 \$ | 3,200.00 | \$ 1,000.00 \$ | 4,000.00 | \$ 1,000.00 | \$ 4,000.00 |
| 13c | 9 | 3,600 | lf. | \$ 1.00 \$ 2.00 | | \$ 1.00 | | \$ 1.00 \$ 10.00 | | \$ 1.00 | | \$ 1.00 \$ | 3,600.00 | \$ 1.00 \$ | 3,600.00 | \$ 2.00 \$ | 7,200.00 | \$ 1.00 | \$ 3,600.00 |
| 13d | 12-inch Pavement Markings | 3.000 | lf. | \$ 2.00 \$ 5.00 | | \$ 8.00 \$ 4,50 | \$ 320.00 \$ 13.500.00 | \$ 10.00 \$ 0.01 | \$ 400.00 \$ 30.00 | \$ 50.00 \$ 3.00 | \$ 2,000.00 \$ 9.000.00 | \$ 3.00 \$ | 120.00 | \$ 5.00 \$ | 200.00 | \$ 5.00 \$ | 200.00 | \$ 5.00 | \$ 200.00 |
| 14a 14b | Loam and Seed Blue stone. Washed stone, and Sea-shell Roadways | 3,000 | sy. | \$ 5.00 \$ 7.50 | | \$ 4.50 \$ 23.00 | | \$ 0.01 \$ 0.01 | | | \$ 9,000.00 \$ 200.00 | \$ 4.00 \$ \$ 19.00 \$ | 12,000.00 | \$ 6.00 \$ \$ 12.00 \$ | 18,000.00 120.00 | \$ 1.00 \$ \$ 0.01 \$ | 3,000.00 | \$ 0.01 \$ 50.00 | \$ 30.00 \$ 500.00 |
| 14b 15a | Blue stone, Washed stone, and Sea-shell Roadways Erosion Control Devices – Filter Sock | 11,900 | sy. lf. | \$ 7.50 | | | | \$ 0.01 \$ 6.00 | \$ 0.10 \$ 71.400.00 | | \$ 200.00 \$ 77.350.00 | \$ 19.00 \$ \$ 9.00 \$ | 190.00 | \$ 12.00 \$ \$ 6.00 \$ | 71.400.00 | \$ 0.01 \$ \$ 4.00 \$ | 47.600.00 | \$ 50.00 \$ 6.00 | \$ 500.00 \$ 71.400.00 |
| 15a 15b | Sedimentation Control at Catch Basins – Silt Sacks | 47 | | \$ 5.00 \$ 155.00 | | \$ 65.00 | | \$ 0.00 \$ 0.01 | | | \$ 77,350.00 \$ 3,995.00 | \$ 9.00 \$ \$ 175.00 \$ | | \$ 0.00 \$ \$ 0.01 \$ | | | | • ••••• | , |
| 15b | Additional Fittings | 1.500 | ea. lbs. | \$ 155.00 | | | | \$ 0.01 \$ 0.01 | | | \$ 3,995.00 \$ 15.00 | \$ 175.00 \$ \$ 0.01 \$ | 8,225.00 | \$ 0.01 \$ \$ 0.01 \$ | 0.47 | \$ 50.00 \$ \$ 0.01 \$ | 2,350.00 | \$ 75.00 \$ 0.01 | \$ 3,525.00 \$ 15.00 |
| 10 | Additional Fittings Additional Restrained Joints | 75 | ea. | \$ 0.01 \$ 0.01 | 10.0 (10.0) | 22 A A A A A A A A A A A A A A A A A A | A | | A | | \$ 15.00 \$ 0.75 | 200 (No. 1997) (No. 1997) | | 307. 3030,2537 | | | 15.00 | (*) 2018.001 | |
| 17 | Additional Restrained Joints Not Used | /3 | ea. | 3 0.01 | a 0.75 | ٥.01 v.01 | ه 0.75 | ٥.01 م | <u>ه (</u> .75 | ٥.01 v.01 | <u>ه 0.75</u> | \$ 0.01 \$ | 0.75 | \$ 0.01 \$ | 0.75 | \$ 0.01 \$ | 0.75 | \$ 0.01 | \$ 0.75 |
| 18 | Not Used Miscellaneous Items | 1 | ls | S 9,000,19 | \$ 9,000,19 | \$ 11,000,00 | \$ 11.000.00 | \$ 0.01 | s 0.01 | \$ 25.000.00 | \$ 25.000.00 | \$ 10.087.00 \$ | 10.087.00 | \$ 155.000.00 \$ | 155,000,00 | \$ 0.01 S | 0.01 | \$ 10.000.00 | \$ 10.000.00 |
| 19 | Miscellaneous Items | | IS. | \$ 9,000.19 | \$ 9,000.19 | \$ 11,000.00 | \$ 11,000.00 | \$ 0.01 | \$ 0.01 | \$ 25,000.00 | \$ 25,000.00 | \$ 10,087.00 \$ | 10,087.00 | \$ 155,000.00 \$ | 155,000.00 | \$ 0.01 \$ | 0.01 | \$ 10,000.00 | \$ 10,000.00 |
| | F | REPORTED BASE | BID TOTAI | , S | 3,158,621.19 | \$ | 3,177,699.50 | S | 3,352,420.59 | \$ | 3,349,408.00 | \$ | 3,397,000.00 | \$ | 3,718,126.47 | \$ | 3,800,339.12 | \$ | 4,045,412.00 |
| | CAL | CULATED BASE | BID TOTAI | , S | 3,158,621.19 | S | 3,177,699.50 | s | 3,356,170.59 | S | 3,394,408.00 | \$ | 3,397,000.00 | S | 3,718,126.47 | S | 3,800,339.12 | S | 4,045,412.00 |

A red value denotes a clerical error (the actual value that was written in words or the corrected value from a mathmatical error).

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Telephone Log

By: Jacquelyn Tupper

Talked with: Mr. Justin Gould, P.E.

Phone No.: 781-221-1083

 Date:
 September 22, 2017

 Time:
 1:25 PM

Subject: Eastham Water Main Construction – Contract 11

Purpose of the call: Reference Check – GVC Construction, Inc.

Telephone Conversation Notes:

What project did you work on them with? Sewer rehabilitation repair work

Approximately how much did the project cost? Approximately \$2 million

How was their quality of work? Good

Were they able to stay on schedule? Yes

How were they will change orders? Did they push for change orders? Good and no, they did not push for them

Was it easy or difficult to work with them? Easy, they're fine. They were easy to get along with.

Would you recommend them? Yes

Do you have any other comments about them? No, you'll be fine with them. They do good work.

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Telephone Log

By: Jacquelyn Tupper

Talked with: Raymond Ralls, P.E.

Phone No.: 207-252-7353

 Date:
 September 22, 2017

 Time:
 1:43 PM

Subject: Eastham Water Main Construction – Contract 11

Purpose of the call: Reference Check – GVC Construction, Inc.

Telephone Conversation Notes:

What projects have you worked with them on? Mostly water main replacement work, including excavation, pavement restoration, and pipe lining.

Approximately how much did the projects cost? \$1-3 million total

How was their quality of work? Very good. There were never an issues with them. When there was any discrepancy, they made the repair. They followed the specifications closely. For the restoration work, they were fine.

Were they able to stay on schedule? Yes. They were the subcontractor for the pipe lining job over the winter, and there was a strict schedule. They were fighting the tides and the weather. Even with a lot of extra activities and factors, they met the schedule.

How were they will change orders? Did they push for change orders? They brought any necessary changes to our attention. It worked both ways; they even credited us.

Was it easy or difficult to work with them? Easy, Mike Valenti and the staff are very good.

Would you recommend them? Absolutely, yes

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www.envpartners.com

Notice of Award

Date:

| Project: CONTRACT 11 – WATER MAINS – NORTH | COLLECTOR ROADS | | | |
|--|------------------------------------|--|--|--|
| Owner: Town of Eastham, MA | Owner's Contract No.: - | | | |
| Contract: 11 | Engineer's Project No.: 217-1702.1 | | | |
| Bidder: GVC Construction, Inc. | | | | |
| Bidder's Address: 375 Harvard St. Unit C | | | | |
| Leominster, MA 01453 | | | | |

You are notified that your Bid dated <u>September 21, 2017</u> for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for Contract 11 – Water Mains – North Collector Roads.

The Contract Price of your Contract is <u>Three million, one hundred fifty-eight thousand, six hundred</u> <u>twenty-one</u>, Dollars and <u>nineteen</u> Cents (<u>\$ 3,158,621.19</u>).

5 copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

<u>0</u> sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within 10 days of the date you receive this Notice of Award.

- 1. Deliver to the Engineer fully executed counterparts of the Contract Documents.
- 2. Deliver with the executed Contract Documents the Contract security (Bonds) as specified in the Instructions to Bidders, General Conditions, and Supplementary Conditions.
- 3. It is acknowledged that <u>9</u> of your bid prices are abnormally low. It is understood that this will be waived as an informality as to form in your Bid. However you are hereby notified that the unrealistically low unit prices not reflecting the actual cost of the work bars you from any equitable adjustment of unit price bid items described in paragraph 5.1 of Section 00500 of the Contract Documents. The specific bid items of note are: <u>8</u>, <u>9</u>, <u>10</u>, <u>11a</u>, <u>11b</u>, <u>11c</u>, <u>12a</u>, <u>16</u>, <u>and 17</u>.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Contract Documents.

| (| Owner | | |
|------|----------------------|------|--|
| By:_ | | | |
| | Authorized Signature | | |

Copy to Engineer

Title

Prepared by the Engineers Joint Contract Documents Committee and endorsed by the Construction Specifications Institute.



Date: October 2, 2017

To: Board of Selectmen

From: Jacqueline W. Beebe, Town Administrator

Re: Committee Resignation

Please note the following member from the Town's Committees, Boards and Commissions who has resigned effective 09/15/17.

Cultural Council

Lou Roy

(resigned: 09/15/17)

September 15, 2017 Effective immediately, I hereby resign from the Easthan Cultural Council. 2

STAFF MEMO

TO:BOARD OF SELECTMENFROM:JACQUI BEEBESUBJECT:STRATEGIC PLANNING STEERING COMMITTEEDATE:SEPTEMBER 29, 2017

The following Board and Committees have voted to recommend the following individuals for appointment to the Strategic Planning Steering Committee:

- Board of Health: Joanna Buffington
- Finance Committee: Michael Hackworth
- Planning Board: Art Autorino

The following individuals have expressed interest in representing the community as at-large members:

- Scott Kerry- (business) Owner of Kerry Insurance and life-long Eastham resident;
- Ben Niggel- (student). Ben is an Eastham resident and a junior at Nauset High School. Bill and I met Ben when he supported the Town at the DCPC Hearing at the Cape Cod Commission. He also attended the public presentation for the Technical Assistance Panel. Ben has a deep interest in government and the political process and cares a great deal about the Town. He is articulate and thoughtful and both Bill and I agreed he would be an excellent young addition to the committee.

I would recommend that you appoint the three recommended members. If you would like to interview or have a process with either of the at-large candidates, please let me know and Laurie can make arrangements.

I have sent reminders to both the ZBA and Conservation Commission that we need to either have recommendations, or they need to let us know that they do not want to participate, so we can fill those places with more at-large community members.

Strategic Planning Steering Committee

Definition, Scope of Work and Charge

Work with Town staff to develop an effective approach to planning for and prioritizing the Town's future service levels and needs while identifying the resources required to meet those needs. Members should seek the overall best interests of the Town of Eastham and conduct an inclusive process that reflects the ideas and values of the full community. The role of the Committee is to solicit, synthesize, integrate, and effectively communicate the information and ideas generated through data gathering, and along with Town staff, develop recommendations and strategic goals that will be presented to the Board of Selectmen and Town Meeting, and be the basis for the next Town of Eastham Local Comprehensive Plan. Particular attention should be paid to guidance related to the desired levels of service, strategic direction and ideas regarding the current and future priorities the Town will pursue.

The work of the Steering Committee and that of the Staff Team will be critical in shaping the Town's priorities and budget/resource allocations over the next 3-5 years and beyond. The process developed will inform decision-making, budgeting, and staff resource allocation as well as monitor the achievement of goals while increasing the Town's ability to respond to unexpected challenges and/or opportunities.

The Strategic Planning Steering Committee shall consist of (7) seven members appointed by the Board of Selectmen for three-year, overlapping terms. The members shall consist of one member each from the Town's regulatory Boards: (1) Zoning Board of Appeals, (1) Planning Board, (1) Board of Health, (1) Conservation Commission, and (1) Finance committee, as well as two members at large, at least one representing the business community. The Town Moderator and the Town Administrator will also be ad hoc members. If there are no members from a particular committee willing to serve, the Board of Selectmen will appoint an at large member in their place. Other committees, town departments and individuals with particular expertise and desired input may be called to participate as needed at the discretion of the committee. The Committee may explore topics with staff, other Town committees and/or the public including: public safety, business and residential development, the needs and perceptions of specific groups such as part-time non-resident taxpayers and/or the business community, affordable housing, human services & recreation, education, infrastructure needs, capital investment, potential revenue sources, health and environment, community preservation, and any other relevant topics as determined by the committee.

The specific responsibilities of the Committee shall include, but not be limited to, working with Town staff to create a 3-5-year strategic plan that will:

• Help recommend the direction and priorities for the work of the Town;

- Create consensus and focus to help drive the successful achievement of the Town's goals;
- Simplify decision-making by defining priorities and the basis for them;
- Align our resources to achieve strategic goals that best use allocated tax dollars;
- Communicate both information and the process to residents and stakeholders so that they understand the Town's challenges and resources, agree on important goals, and accept the key activities necessary to achieve those goals;
- Update the Town's Local Comprehensive Plan (2017);
- Maintain a process to continue to assess and adjust the Town's direction in response to the changing environment and/or the changing needs of residents;
- Develop a disciplined effort that can produce fundamental decisions and actions now that shape and guide consensus around what the Town's purpose is; an understanding of who it serves and why; what services it provides or should provide and why; all with a focus on realistic and sustainable goals.

Adopted by the Board of Selectmen July 19, 2017

STAFF MEMO

| TO: | BOARD OF SELECTMEN |
|----------|--|
| FROM: | JACQUI BEEBE |
| SUBJECT: | OFFERING A SENIOR TAX WORK-OFF PROGRAM |
| DATE: | SEPTEMBER 29, 2017 |

As we add water debt to the budget, staff and I are working hard to identify any additional non-tax revenues and will be discussing options with you as we move into budget season. I also want to be able to offer some tax relief in the form of betterments and in this case, a senior tax work-off program. Many Towns around us have this program, and I ran it successfully in Dennis for many years.

The attached information sheet walks through the details of the program, but the steps are:

- Board of Selectmen approval;
- Town meeting adopting the MGL;
- Developing specific guidelines for the program;
- Creating a process to advertise positions and screen applicants for the work.

Financial Cost:

- If we begin with 25 participants per year, and give the maximum benefit of a \$750 reduction, it would amount to a \$18,750 loss in revenue for the Town.
- It involves some work and processing by a couple of Town departments, usually the assessing department would work with the COA.

Benefits:

- It would provide tax relief for 25 senior residents on fixed incomes, and pay for the tax burden of the water system at its most expensive year;
- It would provide Town departments with very inexpensive Labor to accomplish scanning, filing, greeting, and processing tasks that would normally be performed by higher paid employees, thus mitigating the cost and freeing staff to focus on more professional/technical work.
- It is a great good-will gesture and gives seniors meaningful, on-going opportunities to stay engaged in the community.

What would minimum guidelines be?

- 1.) The individual must be 60 or older;
- 2.) A resident taxpayer of the Town;
- 3.) Apply and be interviewed/accepted for the program;
- 4.) Have skills or be able to provide needed services to a town department;
- 5.) Be willing to work for \$7.50 per hour (100 hours) for the maximum amount of \$750. This gives us a 12 (8 hours) or 24 weeks (4 hour) position for each job.

If this is a concept that the Board would like to pursue, we can add any other requirements you think would be helpful. For example, a maximum income level or means test to be eligible.

Process:

Usually the process is begun by Department Heads who identify positions/duties needed. We will create actual job descriptions and minimum/maximum hours needed to accomplish the task. In the meantime, we would advertise the program and accept applications. In the application process the senior identifies the skills they have and where they would prefer to work. Once accepted, the individuals are matched to a job. The Department Head keeps track of and signs off on the hours worked, and the assessor applies it to the tax period.

This program is particularly good for seasonal positions, or for functions at the "busy" time for a Department. In my experience, we can attract individuals with great skill and experience that can provide expertise as well as those who can provide basic assistance. We need both, so have room for all skill levels.

I have placed an article on the draft warrant in case you are interested in pursuing it as it requires adoption of the law by Town Meeting. If you do not want to pursue it, you can vote not to place the article on the warrant.

Informational Guideline Release (IGR) No. 02-210 September 2002

(Supersedes IGR 00-201)

SENIOR CITIZEN PROPERTY TAX WORK-OFF ABATEMENT

Chapter 184 §52 of the Acts of 2002 (Amending G.L. Ch. 59 §5K)

SUMMARY:

The board of selectmen, town council or mayor with the approval of the city council in a community that has accepted G.L. Ch. 59 §5K may establish a property tax work-off program for taxpayers over 60 years old. Under the program, participating taxpayers volunteer their services to the municipality in exchange for a reduction in their tax bills. A recent amendment to the local acceptance statute increases the maximum abatement a senior may earn each fiscal year under these programs to \$750. The previous limit was \$500 per year.

The amendment is now in effect. A community that has accepted the statute may now grant abatements up to \$750, but any local by-laws, ordinances or rules adopted for the program that expressly limit the abatement to \$500 must first be amended before taxpayers can earn a higher abatement.

These guidelines supersede the guidelines issued when G.L. Ch. 59 §5K was enacted. See Property Tax Bureau Informational Guideline Release No. 00-201, *Senior Citizen Property Tax Work-off Abatement* (January 2000). They reflect the recent amendment and address eligibility and other issues that have arisen since that time.

GUIDELINES:

A. LOCAL ACCEPTANCE OF STATUTE

1. Acceptance

Acceptance of the statute is by a vote of the town meeting, town council, or city council with the mayor's approval where required by law.

PROPERTY TAX BUREAU

DANIEL J. MURPHY, CHIEF

2. Effective Date

The acceptance vote should explicitly state the fiscal year in which the program will first be available.

3. Revocation

Acceptance of the statute may be revoked, but the city or town must wait until at least three years after the statute was accepted to do so. Revocation is also by town meeting, town council or city council vote. G.L. Ch. 4 §4B.

B. SCOPE OF ABATEMENT

1. <u>Age</u>

Taxpayers must be over 60 years of age to earn a property tax abatement under the program.

2. Ownership

Taxpayers must be the assessed owner of the property on which the tax to be abated is assessed, or have acquired ownership before the work is performed and the abatement applied. If the property is subject to a trust, the senior must have legal title, *i.e.*, be one of the trustees, on the applicable January 1 assessment date, or at the time the work is performed.

More than one qualifying owner of the parcel may earn an abatement, unless local program rules limit multiple abatements on a parcel. See Section C below.

3. Maximum Abatement and Hourly Rate

The maximum abatement taxpayers may earn is \$750 per fiscal year. In addition, they cannot receive credit for their services at an hourly rate higher than the state's minimum wage. As of January 1, 2001, that rate is \$6.75 an hour. $CUNNUT \ \partial 017 = 11.00 \ IM$

Communities should also set the rate no lower than the federal minimum wage unless advised by the Wages and Hours Division of the United States Department of Labor that the federal fair labor standards act does not apply to the program. The federal minimum wage is currently $\frac{5.15 \text{ an hour}}{7.25/W}$

Taxpayers may earn abatements under the work-off program in addition to any property tax exemptions they may be eligible for under other statutes, such as personal exemptions under G.L. Ch. 59 §5 or residential exemptions under G.L. Ch. 59 §5C. They may also defer the balance of their taxes under G.L. Ch. 59 §5(41A) if they are eligible to do so.

C. ADOPTION OF LOCAL PROGRAM RULES

After acceptance of the statute, the selectmen, town council or mayor with approval of the city council may establish a senior work-off program consistent with any local rules and procedures the municipality may adopt by by-law or ordinance. Those officials should coordinate the assignment of program participants to the various municipal departments where they will perform their volunteer services.

A municipality accepting the new law should adopt rules to determine:

- The hourly rate at which the tax reduction is to be computed;
- An eligibility date;
- Any income asset limitations on eligibility;
- Any limitation of eligibility to a tax reduction on a volunteer's domicile;
- Any limitations on the number of volunteers or the types of work they may do;
- Any other restrictions or regulations consistent with the intent of the law.

D. CERTIFICATION OF SERVICE

The board, officer or department supervising the taxpayer's volunteer services must certify to the assessors the hours of services performed by the taxpayer <u>before</u> the actual tax for the fiscal year is committed. The certification must state the amount actually earned as of that time. Services performed after that date are credited toward the next fiscal year's actual tax bill to the extent consistent with the program rules established by the municipality. A copy of the certification must also be given to the taxpayer before the actual tax bill is issued. (See attached model that may be adapted to suit local needs).

E. <u>TREATMENT OF "EARNED" AMOUNT</u>

The amount of the property tax reduction earned by the taxpayer under this program is <u>not</u> considered income or wages for purposes of **state** income tax withholding, unemployment compensation or workmen's compensation.

The United States Internal Revenue Service (IRS) has ruled that under current federal law the abatement amount is included in the taxpayer's gross income for both federal income tax and Federal Insurance Contribution Act (FICA) tax purposes, however. In addition, if the community pays the taxpayer's share of FICA taxes, that amount is also income subject to federal income tax. Communities should verify with the IRS that their procedures comply with all applicable federal laws regarding income, Social Security and Medicare tax withholding on abatements earned under this program.

F. ACCOUNTING FOR ABATEMENTS

Earned reductions must be applied to the **actual** tax bills for the fiscal year. The assessors must commit the full tax for the year and process the **gross** amount earned as certified by the board, officer or department supervising the taxpayer's volunteer services as an abatement to be charged against the overlay account. See Section D above. The taxpayer's actual tax bill, however, should <u>only</u> show a credit for the amount earned <u>net</u> of any federal withholdings. The municipal share of federal Social Security and Medicare taxes may also be charged to the overlay unless the community has otherwise provided.

G. STATUS OF VOLUNTEERS

Taxpayers performing services in return for property tax reductions are employees for purposes of municipal tort liability. Municipalities will therefore be liable for damages for injuries to third parties and for indemnification of the volunteers to the same extent as they are in the case of injuries caused by regular municipal employees.

(MODEL)

(Copy must be given to the taxpayer before the actual tax bill is mailed)

City/Town of _____ Certificate of Completion of Volunteer Services

(G.L. Ch.59 §5K)

To: Board of Assessors

the owner of a parcel at ______ has completed (Taxpayer's name) (Property address) hours of volunteer work to be credited toward the fiscal year _____ tax assessed on the parcel at the address listed above at the rate of \$_____ per hour.

(Signature of Person Certifying Work)

(Board or Department)

(Date)



CAPE COD COMMISSION

Town of Eastham Road Safety Audit Route 6 (Grand Army of the Republic Highway) at Nauset Road/Wampum Lane

DRAFT September 18, 2017



Prepared by the Cape Cod Commission in cooperation with the Town of Eastham and MassDOT Highway Division, Traffic Safety, and District 5 Offices.



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Road Safety Audit: Eastham – Route 6 at Nauset Road/Wampum Lane 2017



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Background

All levels of government— local, regional, state, and federal—have been considering locations where crashes are most severe for many years. Several years ago, the national consensus was that there should be goals to reduce crashes, and in the 2005 federal legislation: Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), there was more emphasis on improving highway safety along with a dedicated funding program—the Highway Safety Improvement Program (HSIP). The latest federal legislation: Fixing America's Surface Transportation (FAST), signed into law on December 4, 2015, retains the Highway Safety Improvement Program (HSIP) as one of its core highway programs.

To reduce the number of crash-related fatalities and incapacitating injuries, Massachusetts developed a Strategic Highway Safety Plan in 2006. The mission of the Safety Plan is to "Develop, promote, implement, and evaluate data-driven, multidisciplinary strategies to maximize safety for users of the roadway system." One of the many strategies noted in the Safety Plan is to "conduct Road Safety Audits at highcrash locations throughout the Commonwealth." MassDOT incorporated the Road Safety Audit as a requirement for securing Federal funding (Highway Safety Improvement Program [HSIP] funds) for safety projects.

The Federal Highway Administration (FHWA) defines a Road Safety Audit as the formal safety examination of an existing or future road or intersection by an independent, multidisciplinary team. The purpose of a Road Safety Audit is to identify potential safety issues and possible opportunities for safety improvements while considering all roadway users.

The Cape Cod Commission (CCC), serving as the regional planning agency for the fifteen towns on Cape Cod, has reviewed many transportation locations over the years during various processes, including the Regional Transportation Plan, the Transportation Improvement Program, and Developments of Regional Impact, considering the existing safety issues and potential improvements. In addition, the CCC began looking at specific safety locations annually through safety studies and Road Safety Audits. A portion of the federal HSIP funds are allocated for improvements to the region's highest crash locations.

This RSA evaluates the intersection of Route 6 (Grand Army of the Republic Highway) at the northern intersection of Nauset Road in Eastham, Massachusetts as shown in Figure 2.



Road Safety Audit Multidisciplinary Team

The Road Safety Audit was scheduled with representatives of the Massachusetts Department of Transportation (MassDOT), town officials, and representatives of other stakeholders. The Road Safety Audit meeting was held on August 22, 2017, beginning at 10:00 a.m., at the Eastham Police Station. The multidisciplinary team also visited the site during the Road Safety Audit meeting, and then reconvened at the station.

| Audit Team Member | Agency / Affiliation |
|---------------------|-------------------------------------|
| Ed Kulhawik | Eastham Police Department |
| Kent Farrenkopf | Eastham Fire Department |
| Neil Andres | Eastham Department of Public Works |
| Paul Lagg | Eastham Planning Department |
| Elsa Chan | MassDOT Traffic Safety |
| Kevin T. Fitzgerald | MassDOT Traffic Safety |
| Jason Walters | MassDOT District 5 – Projects |
| Emily Budzynkiewicz | Safe Routes to School |
| Peter Doolittle | Cape Cod Regional Transit Authority |
| Lev Malakhoff | Cape Cod Commission |
| Steve Tupper | Cape Cod Commission |
| Dave Nolan | Cape Cod Commission |



Project Location and Description

Route 6 (Grand Army of the Republic Highway) at Nauset Road/Wampum Lane in Eastham is a four-way signalized intersection shown in the aerial view of the figure below. The study area locus is shown in Figure 2.

The intersection serves both regional and local traffic. The location of the intersection makes it important for commercial and non-commercial through-trips to/from the towns of Provincetown, Truro, and Wellfleet from/to the rest of Cape Cod and beyond.

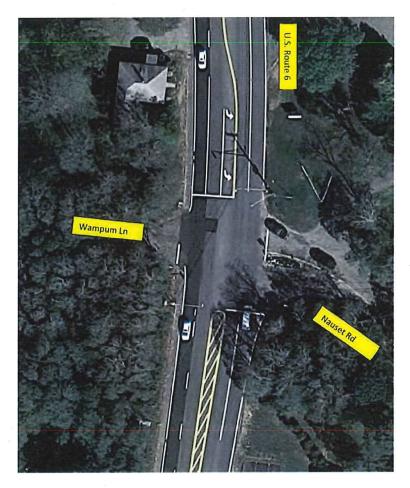


Figure 1 – Aerial view of Route 6/Nauset Road intersection

This RSA has been conducted in context with other planning efforts & development issues. The town of Eastham has requested designation of parcels abutting Route 6 as part of a District of Critical Planning Concern (DCPC). The DCPC designation allows a moratorium on development while the town develops strategies and regulations to insure traffic flow and safety along the corridor between the Wellfleet town line and Old Orchard Road. Recent upgrades in water supply infrastructure have spawned concerns of new development putting strain on the available transportation infrastructure.

Road Safety Audit: Eastham - Route 6 at Nauset Road/Wampum Lane 2017



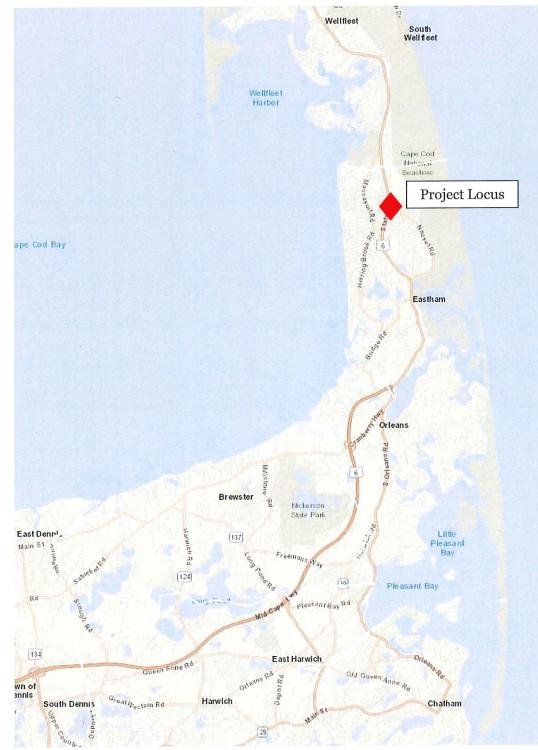


Figure 2 – Locus Map



Also, a 50-unit affordable housing project has been proposed with frontage along Route 6 to the south of Railroad Avenue. This project is currently on appeal. Part of the proposed traffic circulation for this development includes the use of Railroad Avenue/Nauset Road to access the traffic signal to turn left onto Route 6.

The local street network is shown in Figure 3. Nauset Road is the main route for travel to Nauset Regional High School for residents of the towns to the north as well as Eastham residents living in areas to the north and west. Due to the challenges motorists face when attempting to turn left onto Route 6, some motorists to the south will make use of Railroad Avenue/Nauset Road as an ad-hoc "jughandle" intersection to turn left onto Route 6 to head south. Nauset Road also serves as an important connection to the Cape Cod Rail Trail for users traveling from/to the northern/western part of Eastham via Aspinet Road/Route 6.

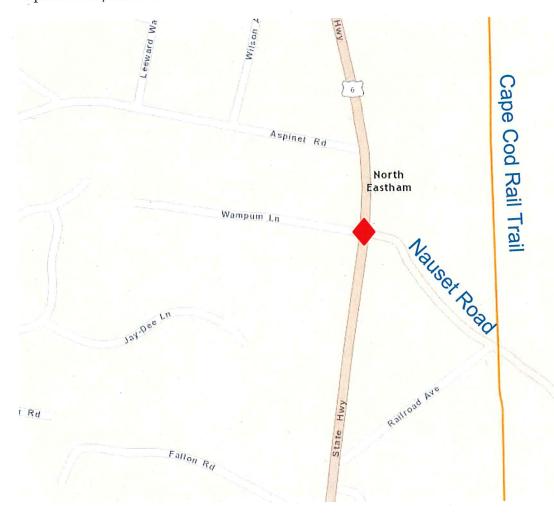


Figure 3 – Local Street Network including Cape Cod Rail Trail

To address concerns about mobility and safety along the Route 6 corridor and other important connecting roads in town, to Town of Eastham is contracting with the Cape Cod Commission to develop a "Complete Streets" prioritization plan.

Road Safety Audit: Eastham - Route 6 at Nauset Road/Wampum Lane 2017



Project Data

Crash reports were for this Road Safety Audit and were supplied by the Eastham Police Department. The crash data were reviewed and a collision diagrams were developed for the Route 6 intersection with Nauset Road/Wampum Lane as well as the intersection of Route 6 with Aspinet Road.

Nauset Road/Wampum Lane intersection crashes

From the reports provided by Eastham Police Department, six crashes occurred at the Nauset Road location between 2014 and 2016 with two property-damage-only crashes, four injury crashes, and no fatal crashes. Most of the crashes occurred during the busy summer season indicating that heavy traffic flow may be a contributing factor. Four of the crashes were rear-end (two of which involved injuries). These two injury rear-end crashes in addition to a property-damage only rear-end crash occurred on the northbound approach of Route 6. were angle crashes.

Aspinet Road intersection crashes

From the reports provided by Eastham Police Department, three crashes occurred at the Aspinet Road location between 2013 and 2016 with two property-damage-only crashes, one injury crash, and no fatal crashes. The crashes occurred in three separate months: February, June, and August. All of the crashes involved turning vehicles: two crashes (one of which resulted in injury) involved northbound vehicles turning left into Aspinet Road and the third crash involved a vehicle turning right from Aspinet Road.

Traffic volumes

Cape Cod Commission staff also prepared reports of the traffic volume data at the Nauset Road intersection. Turning movement counts taken in August of 2015 show that the intersection carries 1,794 vehicles during the 4-5 p.m. period with 40 vehicles turning left from Route 6 southbound. During the 8-9 a.m. period there were 1,573 vehicles traveling through the intersection with 95 vehicles turning left from southbound Route 6.

The collision diagrams and the traffic count data are included in the appendix.



Road Safety Audit Observations and Potential Improvements

On Tuesday, August 22, 2017 the Road Safety Audit Team met at the Eastham Police Station for a discussion of the existing conditions, visited the site for field observations, and returned to discuss the safety issues at the location. The summary crash data, a collision diagram, and traffic volume reports were brought to the Road Safety Audit team meeting, and are included in the appendix.

The following safety issues were identified through the site visit and discussions with the Road Safety Audit team.

Safety Issue #1. Multi-modal Accommodation

Safe facilities for pedestrians and cyclists encourage healthy transportation options and reduced automobile use and its associated impacts on the environment.

Observations

- Route 6 includes a sidewalk along the western side of the roadway, there is no sidewalk along the east side where many of the commercial parcels are located.
- There is no sidewalk along Nauset Road; the Cape Cod Rail Trail is accessible from Nauset Road approximately 1/10 mile east from Route 6.
- There are no crosswalks on any of the approaches at either the Nauset Road or the Aspinet Road intersections.
- Due to large curb radii, pedestrian travel across Aspinet Road can be challenging due to longer crossing distance.
- The signal at Nauset Road has no pedestrian activation nor pedestrian signal head.
- Pedestrians attempting to safely cross Route 6 must wait for a vehicle on either Nauset Road or Wampum Lane to activate a phase to stop Route 6 traffic.
- The study team observed many pedestrians and cyclists traveling between points west and east via Aspinet Road, the sidewalk along the west side of Route 6, and Nauset Road (presumably to access the Cape Cod Rail Trail).
- During a crossing of Route 6 from Nauset Road attempting to access the sidewalk, the study team witnessed one pedestrian (walking a bicycle) misjudge the curbing, trip, and collapse onto the sidewalk. Fire Chief Farrenkopf provided immediate assistance and the pedestrian was able to continue on his journey to Aspinet Road.





Figure 4 - Pedestrians crossing Route 6 to access Nauset Road



Figure 5 - Cyclists (on foot) crossing Route 6 to access Nauset Road





Figure 6 - Aspinet Road approach showing wide crossing distance and lack of crosswalk

Potential Enhancements

- Add a pedestrian push button and signal head to cross Route 6 at Nauset Road.
- Install ADA curb ramps on sidewalk along west side of Route 6.
- Provide crosswalks on all four approaches of the Nauset Road/Wampum Lane intersection and on the Aspinet Road approach.
- Provide a sidewalk along Nauset Road from Route 6 to the Cape Cod Rail Trail.
- Provide a sidewalk along the eastern side of Route 6.

Safety Issue #2. Intersection Control & Lighting

In 2014 MassDOT modified the signal head for Route 6 southbound travel to include a left-turn arrow and a leading-left phase. When developing potential solutions to improve safety at intersections, the Commission considers conversion to roundabout as well as traditional signal-controlled options. Conversion of a signal-controlled intersection to a roundabout has been shown to reduce injury and fatal crashes by 78% (according to the Federal Highway Administration, National Cooperative Highway Research Program Report 672).

Observations

• Overall, the signal system is in poor condition; there is no emergency vehicle preemption (e.g., Opticom system).

Road Safety Audit: Eastham - Route 6 at Nauset Road/Wampum Lane 2017



- The signal actuation on the Nauset Road approach is in some cases unnecessary (e.g., when a car makes a right turn on red the actuation causes Route 6 traffic to stop despite there being no vehicle waiting on the minor street).
- The mounting hardware for the southbound Route 6 signal head is failing; the signal head is tilted.
- The lower connector arm on the signal head in the northeast quadrant is rusted through and broken.
- The visor for the northbound Route 6 green light is missing.
- There are no backplates on the signal heads.
- In general, signal heads are not centered over the approach lanes.
- One team member noted that some of the signal heads appeared insufficiently bright.
- The short weaving distance for vehicles traveling from Aspinet Road to make a left turn into Nauset Road is a potential conflict.
- Route 6 is posted for 40 mph; speeding is a concern.
- The intersection includes overhead lighting which seems adequate.
- The study team discussed the advantages of conversion of the intersection to a roundabout.



Figure 7 - Route 6 southbound signal housing damaged and tilting





Figure 8 - Entrance to Wampum Lane green signal head missing visor



Figure 9 - Lower signal connecter arm rusted through and separated from pole on signal head in the northeast quadrant

Potential Enhancements

- Modify signal actuation on Nauset Road to eliminate stopping Route 6 traffic in cases where drivers have already turned right on red.
- Upgrade signal system with new signal heads, visors, backplates, poles, and vehicle pre-emption.
- Consider converting the Nauset Road intersection to a modern roundabout.



Safety Issue #3. Pavement Markings & Signage

The traffic control devices, including pavement markings and signs, are critical for the safety of all roadway users. The *Manual on Uniform Traffic Control Devices (MUTCD)* sets minimum standards and provides guidance to ensure uniformity of traffic control devices across the nation.

Observations

- The stop sign on Aspinet Road is much lower than standard height and is not conspicuous due to the position to tight of the sidewalk.
- The Nauset Road street sign is broken and faded; sign visibility is poor.
- The guidance implied by the "Bike Route" sign at the entrance to Nauset Road is ambiguous.
- The stop line pavement marking on Nauset Road is worn and missing in sections.

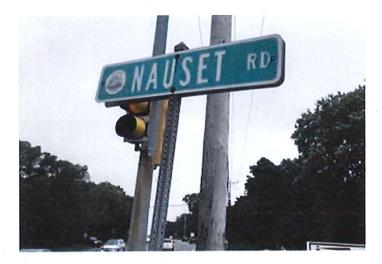


Figure 10 - Nauset Road street sign faded and partly broken





Figure 11 - Stop bar worn at Nauset Road approach

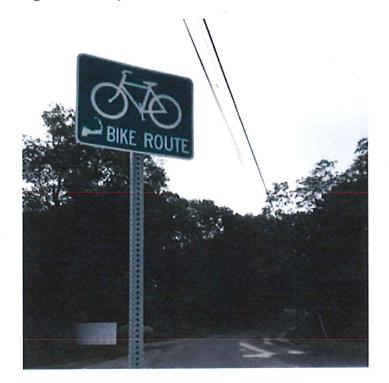


Figure 12 - Bike route sign at Nauset Road entrance – ambiguous

Road Safety Audit: Eastham – Route 6 at Nauset Road/Wampum Lane 2017





Figure 13 - Aspinet Road approach showing low stop sign and ambiguous bike route sign

Potential Enhancements

- Replace worn pavement marking including stop line on Nauset Road
- Replace Nauset Road street sign at location to improve visibility
- Include destination information & arrows for bike route signs (e.g., "To Cape Cod Rail Trail")
- To improve stop sign visibility at Aspinet Road, consider:
 - Relocate stop sign to curb (install at standard height) & relocate adjacent side walk
 - Install pedestrian refuge at center of Aspinet Road with supplemental stop sign



Safety Issue #4. Obstructions

A Policy on Geometric Design of Highways and Streets (2011), prepared by the American Association of State Highway and Transportation Officials, is the definitive reference manual on roadway design. The manual states that "each quadrant of an intersection should contain a triangular area free of obstructions that might block an approaching driver's view of potentially conflicting vehicles." This clear sight triangle is also needed to provide "sight distance for a stopped vehicle on a minor-road approach to depart from the intersection and enter or cross the major road."

Observations:

- For vehicles exiting Aspinet Road, site distance is limited by vegetation in the northwest quadrant along Route 6; additional vegetation obscures the view of the stop sign.
- For vehicles exiting Nauset Road, a utility pole and guy wire in the northeast quadrant slightly obscure sight distance. Site distance is limited by vegetation in the southeast quadrant along Route 6.

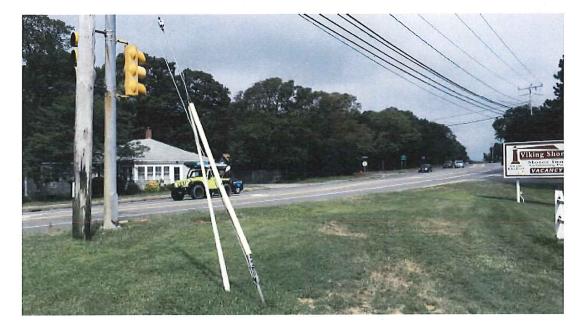


Figure 14 – Potential sight obstructions in northeast quadrant of Nauset Road intersection - utility pole and guy wires



Potential Enhancements:

- Remove trees and hedges to the south of the Nauset Road intersection that are currently obstructing sight lines along the east side of Route 6.
- Remove trees and hedges to the north of the Aspinet Road intersection that are currently obstructing sight lines along the west side of Route 6.

Safety Issue #5. Pavement Conditions & Drainage

Observations

- Pavement is showing signs of wear including weathering, minor cracking and utility patches.
- At Wampum Lane, erosion of the road edge was noted in the northwest quadrant; possibly exacerbated by an incorrectly installed catch basin cover (installed in reverse orientation).



Figure 15 - Catch basin blocked by debris

Potential Enhancements

- Maintain catch basins, re-install covers as needed.
- Consider repaying as part of a Nauset Road intersection upgrade.



Summary of Road Safety Audit

The summary list of the Road Safety Audit observations and enhancements is provided in **Error! Reference source not found.** to assist in the design and/or implementation of potential improvements elicited during the process. It is also recommended that any design process for more involved geometric changes include further analysis and public input.

Safety payoff estimates are subjective judgement of the potential effectiveness of the potential enhancement. Where available, documented crash reduction factors where used to develop these safety payoff estimates.

The time frame is categorized as short-term (<1 year), medium-term (1 to 3 years), or long-term (>3 years). The costs are categorized as low (<\$10,000), medium (\$10,001 to \$50,000), or high (>\$50,000).



Potential Safety Enhancement Summary

| Safety Issue | Potential Safety Enhancement | Safety Payoff | Time Frame | Cost | Responsible Agency |
|---------------------------------------|---|---------------|-------------|------------------|-----------------------|
| | Add a pedestrian push button and signal head to cross Route 6 at Nauset Road. | High · | Short • | Medium • | MassDOT • |
| | Install ADA curb ramps on sidewalk along west side of Route 6. | Medium · | Short | Low • | MassDOT • |
| Multi-modal Accommodation | Provide crosswalks on all four approaches of the Nauset Road/Wampum Lane intersection and on the Aspinet Road approach. | Medium | Medium | Medium | MassDOT |
| | Provide a sidewalk along Nauset Road from Route 6 to the Cape Cod Rail Trail. | Medium · | Medium • | Medium-High • | Town • |
| | Provide a sidewalk along the eastern side of Route 6. | High | Medium | Medium-High | MassDOT |
| | Modify signal actuation on Nauset Road to eliminate stopping Route 6 traffic in cases where drivers have already turned right on red. | Medium | Short | Low · | MassDOT |
| Intersection Control & Lighting | Upgrade signal system with new signal heads, visors, backplates, poles, and vehicle pre-emption. | High • | Medium | Medium | MassDOT |
| - | Consider converting the Nauset Road intersection to a modern roundabout. | High | Long | High | MassDOT |

| | Replace worn pavement marking including stop line on Nauset Road | Low . | Short | Low | MassDOT |
|--------------------------|--|--------|------------|----------|-----------------------|
| | Replace Nauset Road street sign at location to improve visibility | Low | Short | Low | MassDOT · |
| Pavement Markings & | Include destination information & arrows for bike route signs (e.g., "To Cape Cod Rail Trail") | Low . | Short • | Low . | MassDOT/ Town |
| Signage | To improve stop sign visibility at Aspinet Road, consider: | | | | |
| | Relocate stop sign to curb (install at standard | Low | Medium | Medium | MassDOT |
| | height) & relocate adjacent side walk Install pedestrian refuge at center of Aspinet Road with supplemental stop sign | Medium | Medium | Medium | MassDOT |
| | Remove trees and hedges to the south of the Nauset Road intersection that are currently obstructing sight lines along the east side of Route 6. | Medium | Short | Low · | MassDOT/ Town • |
| Obstructions | Remove trees and hedges to the north of the Aspinet Road intersection that are currently obstructing sight lines along the west side of Route 6. | Medium | Short | Low | MassDOT/ Town |
| Pavement | Maintain catch basins, re-install covers as needed. | Low | Short | Low | MassDOT |
| Conditions & Drainage | Consider repaving as part of a Nauset Road intersection upgrade. | Low | Medium | Medium | MassDOT |

Road Safety Audit: Eastham - Route 6 at Nauset Road/Wampum Lane 2017

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Appendices

Road Safety Audit Team Members' Contact Information

Road Safety Audit Meeting Agenda

Crash Diagrams

Traffic Data

| Audit Team Member | Agency / Affiliation | Email Address |
|----------------------|-------------------------------------|-----------------------------------|
| Ed Kulhawik | Eastham Police Department | ekulhawik@eastham-ma.gov |
| Kent Farrenkopf | Eastham Fire Department | kfarrenkopf@eastham-ma.gov |
| Neil Andres | Eastham Department of Public Works | nandres@eastham-ma.gov |
| Paul Lagg | Eastham Planning Department | plagg@eastham-ma.gov |
| Elsa Chan | MassDOT Traffic Safety | elsa.chan@state.ma.us |
| Kevin T. Fitzgerald | MassDOT Traffic Safety | kevin.t.fitzgerald@state.ma.us |
| Jason Walters | MassDOT District 5 – Projects | jason.walters@state.ma.us |
| Emily Budzynkiewicz | Safe Routes to School | emily.budzynkiewicz@state.ma.us |
| Peter Doolittle | Cape Cod Regional Transit Authority | pdoolittle@capecodrta.org |
| Lev Malakhoff | Cape Cod Commission | lmalakhoff@capecodcommission.org |
| Steve Tupper | Cape Cod Commission | stupper@capecodcommission.org |
| Dave Nolan | Cape Cod Commission | david.nolan@capecodcommission.org |

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Participating Audit Team Members – Contact Information



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Road Safety Audit (RSA) Meeting

Eastham: Intersection of Route 6 at Nauset Road/Wampum Lane

Tuesday, August 22, 2017 🔺 10:00 a.m. – 12:00 p.m.

Location: Eastham Police Department 2550 State Highway (Route 6) Eastham MA 02642

10:00 a.m. Welcome and Introductions

10:10 a.m. Review of Site-Specific Material

- Crash and Traffic Volume Summaries
- Existing Geometries and Conditions

10:30 p.m. Visit the Site (Group)

- Assemble as a group at the site for observation of conditions
- As a group, identify areas for improvement

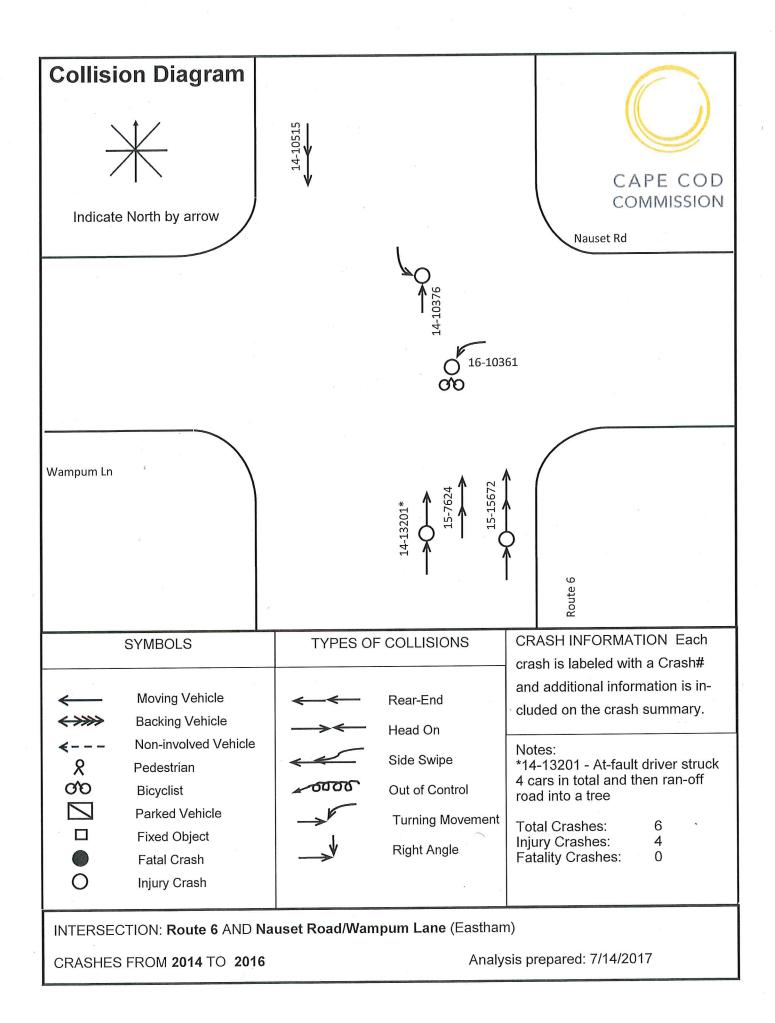
11:15 p.m. Post-Visit Discussion at Meeting Room / Completion of RSA

- Discuss observations and finalize on-site findings
- Discuss potential improvements and draft recommendations

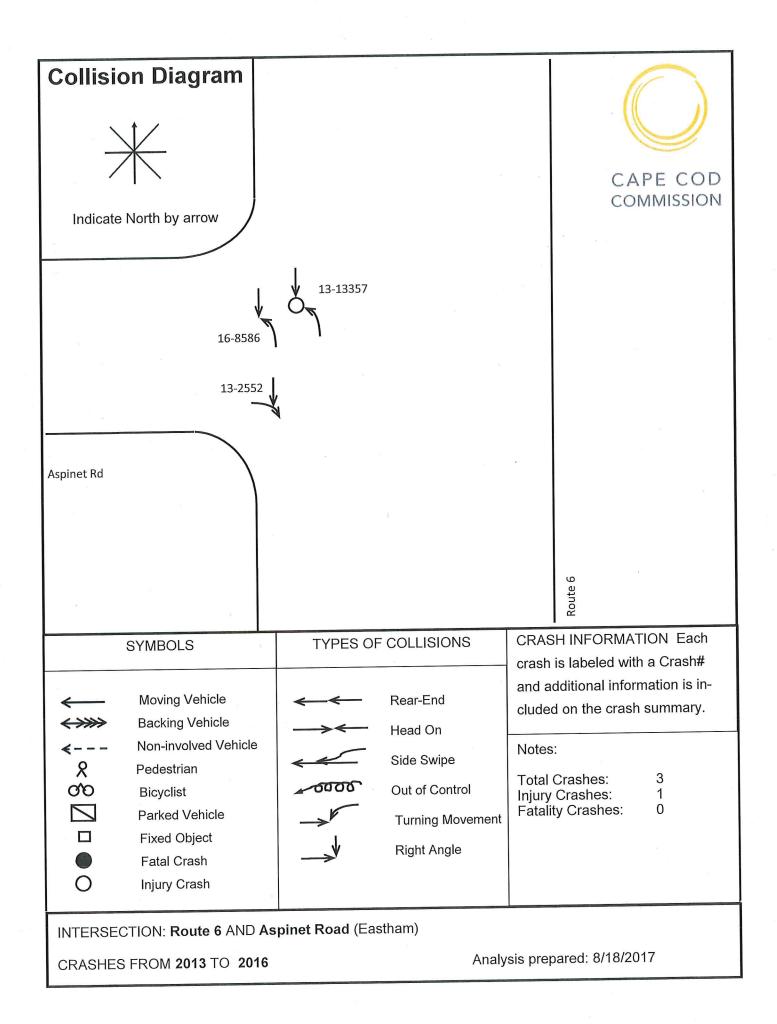
12:00 p.m. Adjourn

Next Steps: After the RSA meeting, CCC staff will prepare a draft document and circulate it to participants. Participants will be asked to comment and respond to the draft document to assure that it is reflective of the RSA completed by the multidisciplinary team. With comments submitted, a final document is then produced; the final document is expected to be available within three weeks of the RSA.





| Crash # | DATE | TIME | INJURY | NOTES | MAPPED |
|----------|-----------|------|--------|--|--------|
| | | | | Vehicle 1 was traveling south on Route 6 attempting to make a left turn onto Nauset Road. | |
| | | | | Vehicle 2 was traveling north on Route 6 when Vehicle 1 cut in front of him. Vehicle | х |
| 14-10376 | 7/6/2014 | 0919 | X | 2 was unable to stop and stuck Vehicle 1, pushing it into the traffic island at Nauset | Х |
| | | | | and Route 6. Vehicle 1 was cited for Failure to use care in turning. | |
| | | | | Veh. 2, operated by was stopped in the southbound travel lane at a red traffic | |
| | | | | light at the intersection of Route 6 and Wampun/Nauset Rd. Veh. 1, operated by | |
| | | | | was traveling southbound on Route 6 in the travel lane. Veh. 1 failed to see Veh. 2 | |
| 14-10515 | 7/9/2014 | 1608 | | stopped at the traffic light and struck the rear bumper of Veh. 2. Veh. 1 sustained | X |
| 14-10313 | // 5/2014 | 1000 | | damage to the front bumper, hood, and headlight assemblies. Veh. 2 sustained minor | 8 |
| | | | 8 | damage to the rear bumper. Veh. 1 removed from scene by Silver Cloud Towing. No | |
| | | | | personal injury. Damage appeared to be over \$1000. Photographs taken. | |
| | | | | VI WAS TRAVELING NORTHBOUND IN PASSING LANE. VI STRUCK V2 FROM BEHIND CAUSING V2 TO | |
| | | | | VI WAS TRAVELING NORTHBUOND IN PASSING LANS. YI SINCEN IT INCOME TO THE RIGHT AND STRUCK | |
| | ×. | | | THE REAR OF V3. V1 THE CONTINUED NORTHBOUND AND SIDE SWIPED V4. V1 THEN CONTINUED | |
| | | | ÷. | THE REAR OF V3. VI THE CONTINUED NORTHBOUND AND SIDE SWITED V4. VI THER CONTINUED NORTHBOUND AND STUCK THE REAR OF V5, WHO DROVE THROUGH THE INTERSECTION TO AVOID THE | |
| 14-13201 | 8/22/2014 | 1819 | x | NORTHBOUND AND STUCK THE REAR OF V5, WHO DROVE INROUGH INE INTERDEDITION TO AVOID INE CRASH. VI THEN BOUNCED OFF OF V5 AND DROVE NORTHBOUND. VI THEN CUT ACROSS THE | x |
| 14 15201 | 0,22,2021 | | | | |
| | | 2 | | NORTHBOUND PASSING LANE, THEN ACROSS THE SOUTHBOUND PASSING LANE, INTO THE SOUTHBOUND | |
| | | | 2.1 | TRAVEL LANE. VI THEN DROVE UP AND OVER THE SIDEWALK, CONTINUED THROUGH THE GRASS AND | |
| | | | | INTO THE WOODS AND THEN STRUCK A TREE, COMING TO A STOP. | |
| | | | | Veh.2 stopped at red traffic light at intersection of State Hwy and Nauset Rd. heading | |
| | | | | northbound. Veh.1 slowing behind Veh.2 in a line of traffic. Operator of Veh.1 stated he | |
| 45 7694 | 0/22/2015 | 2154 | | wasn't paying attention and rear-ended Veh.2. | x |
| 15-7624 | 8/22/2015 | 2154 | i | | |
| | | | | Slight damage to front bumper of Veh.1. Moderate damage to rear bumper of Veh.2. Both | |
| | | | | vehicles driven from scene. No reported injuries. | |
| | | | 10 | Vehicle #1 and Vehicle #2 were heading northbound on Rte 6, in traffic, in front of | |
| | | | | Hopper Real Estate when Vehicle #3 (also traveling northbound/behind Veh #2) rear-ended | - |
| | | | | Veh #2 causing a chain reaction. Veh #2 was then pushed forward and subsequently struck | - |
| | | | | the rear end of Veh #1. Veh #1 sustained minor damage to rear bumper and passeger side | - |
| | | | 3 | tail light. Veh #2 sustained major rear end damage as well as minor damage to driver's | - |
| 15-15672 | 11/6/2015 | 1506 | x | side front bumper and head light. Veh #3 sustained major front end damage, including | X |
| 10 10072 | 22,0, | | | the engine compartment area. | |
| | | | | pain and was evaluated, and later transported to CCH by Eastham Rescue. Veh #1 drove | _ |
| | | | | away from the scene while both Veh #2 and Veh #3 were towed by Silver Cloud. | |
| | | | | owner/operator of Veh #3, was issued a citation (R6743212). Accident occurred in "Work | |
| ĩ | | es. | | Zone" area (30MPH). See attached supplemental narrative. | _ |
| | | | | Veh. 1, operated by, was turning left from Nauset Road on to Route 6. Bicyclist, | _ |
| | | | 1 | ven. 1, operated by a crossing Route 6 attempting to go to Nauset Road. Veh. 1 failed to see | 1 |
| | | | | and struck in the center of the intersection. Veh. 1 sustained damage to the | |
| 16 10201 | 7/22/2016 | 1552 | x | front driver's side wheel well. Suffered what appeared to be non-life | x |
| 16-10361 | //22/2016 | 1552 | | threatening injuries and was transported to Cape Cod Hospital by the Eastham Fire | |
| | 1 | 1 | | uncovering anjusted and the second seco | |
| | | | | Department. Photographs taken of scene. 5 witness statements scanned and attached to | |



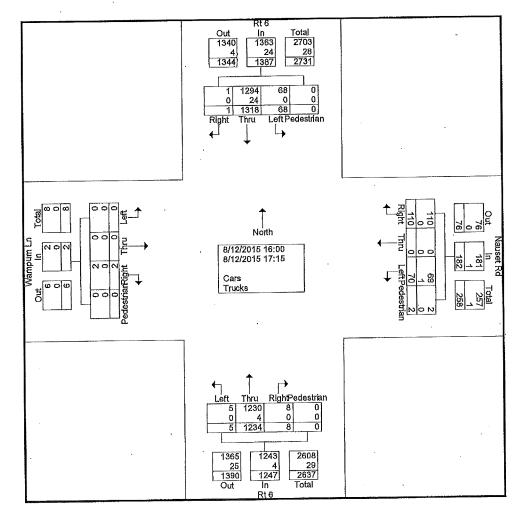
| Crash # | DATE | TIME | INJURY | NOTES | MAPPED |
|----------|-----------|------|--------|---|--------|
| | | | | Veh. 1, operated by was traveling southbound on Route 6 in the passing lane. | |
| | | | | Veh. 2, operated by was attempting to enter into the southbound travel lane | |
| | | | | from Aspinet Road. Veh. 1 failed to notice Veh. 2 entering into traffic and began to | |
| | | | | merge into the southbound travel lane. Veh. 1 struck the front loader bucket of Veh. 2, | |
| 13-2552 | 2/14/2013 | 1023 | | causing Veh. 1 to go into a spin. Veh. 1 came to rest on the driveway of 5155 Route 6 | Х |
| 12-2222 | 2/14/2013 | 1025 | | facing northbound. Veh. 1 sustained damage to the passenger side front and rear doors. | |
| | | | | Veh. 2 sustained no visible damage. No personal injury. Veh. 1 removed by Silver Cloud | |
| | | | | Towing, Veh. 1 operator Bramanti issued criminal citation R2795898 for Ch.90 s.23, | |
| : | | | | operating with a suspended license. | |
| | | | | Veh. 1, operated by was on Route 6 in the left turn lane attempting to make a | |
| | | | | left turn on to Aspinet Road. Veh. 2, operated by the second state of the southbound | |
| | | | | on Route 6 in the travel lane approaching the Aspinet Road intersection. Veh. 1 failed | |
| | | | | to yield to oncoming traffic and attempted to make a left turn onto Aspinet Road. Veh. | |
| 13-13357 | 8/14/2013 | 1303 | x | 2 applied brakes in an attempt to stop but was unable to avoid Veh.1 Veh. 2 struck Veh. | X |
| 10 1000/ | 0/11/2010 | | | 1 on the passenger side door area. Veh. 2 sustained heavy damage to the front passenger | |
| | | | | side bumper and engine compartment area. Operator of Veh. 1 transported to Cape Cod | * |
| | | | | Hospital by the Eastham Fire Department. Damage over \$1000. Both Vehicles removed by | |
| | | | | Tinknocker Towing. Witness statements completed on crash. | |
| | | | | Veh. 2, operated by was traveling southbound on Route 6 in the travel lane. | - |
| | | | | Veh. 1, operated by was attempting to turn on to Aspinet Road from Route 6. | - |
| | | | | Bebout stated that he failed to observe Veh. 2 and turned into oncoming traffic. Veh. 1 | - |
| 16-8586 | 6/20/2016 | 1633 | | struck the passenger side front and back door of Veh.2. Veh. 1 sustained damage to the | x |
| TO 0000 | | | | front bumper. Veh. 2 sustained damage to the driver side front and back doors. Damage | - |
| | | | | appeared to be over \$1000. No reported personal injury. Veh. 2 was removed by Silver | _ |
| | | | | Cloud Towing. Fhotographs taken. | |

Cape Cod Commission

3225 Main Street Barnstable, MA, 02630 www.capecodcommission.org

Location: Nauset Rd & Rt 6 Town: Eastham Counted by: JW Counters: 6

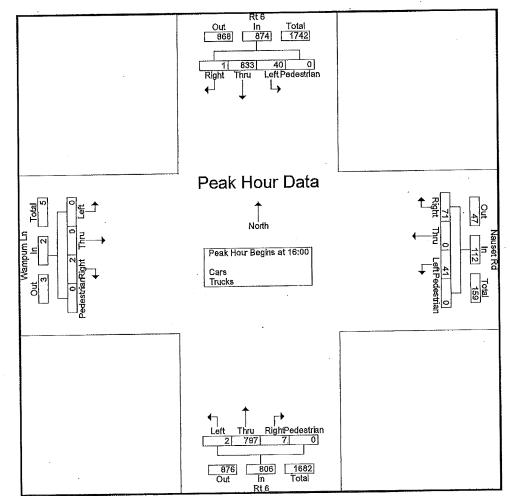
| | | | | | | | | Gro | oups F | rinted- | Cars - | Truck | (5 | | | | | | | | ı |
|-------------|------|------|-------|----------|------------|------|------|-------|-----------|------------|--------|-------|-------|----------------|------------|------|----------|----------------|---------------|------------|------------|
| | | | Rt 6 | | | | | auset | | | | - | Rt 6 | | | | | ampun rom W | | | |
| | | Fr | om No | orth | | | F | rom E | ast | | | | om So | | | | F | | | | |
| Start Time | Left | Thru | Right | Podestia | App, Totai | Left | Thru | Right | Podestria | App. Total | Left | Thru | Right | Podostrfa R | App. Tolal | Left | Thru | Right | Podosiđa n | App, Total | Int. Total |
| 16:00 | 8 | 254 | 1 | 0 | 263 | 17 | 0 | 24 | 0 | 41 | 1 | 251 | 2 | 0 | 254 | 0 | 0 | 1 | U | 1 | 559 |
| 16:15 | 17 | 248 | 0 | 0 | 265 | 13 | 0 | 20 | 0 | 33 | 1 | 181 | 3 | 0 | . 185 | 0 | 0 | ï | U | 1 | 484 |
| 16:30 | 7 | 173 | Ó. | 0 | 180 | 7 | 0 | 7 | · Q | 14 | 0 | 179 | 0 | 0 | 179 | 0 | 0 | Ų | Ų | 0 | 373 |
| 16:45 | 8 | 158 | Ó | Ó | 166 | 4 | 0 | 20 | 0 | 24 | 0 | 186 | 2 | 0 | 188 | ۰.0 | 0 | 0 | 0 | 0 | 378 |
| Total | 40 | 833 | 1 | 0 | 874 | 41 | 0 | 71 | 0 | 112 | 2 | 797 | 7 | 0 | 806 | 0 | 0 | 2 | 0 | 2 | (1794) |
| | | 004 | ~ | ^ | 227 | 17 | 0 | 32 | 2 | 51 | 0 | 227 | 0 | 0 | 227 | 0 | 0 | 0 | 0 | 0 | 515 |
| 17:00 | 13 | 224 | 0 | 0 | 237 | 12 | 0 | 7 | 2 | 19 | 3 | 210 | 1 | Ő | 214 | 0 | 0 | 0 | 0 | 0 | 509 |
| 17:15 | 15 | 261 | 0 | 0 | 276 | 70 | 0 | 110 | 2 | 182 | 5 | 1234 | 8 | õ | 1247 | 0 | 0 | 2 | 0 | 2 | 2818 |
| Grand Total | 68 | 1318 | 1 | 0 | 1387 | 1 | 0 | 60.4 | 1.1 | 102 | 0.4 | 99 | 0.6 | ň | | Ô | Ō | 100 | 0 | | |
| Apprch % | 4,9 | 95 | 0.1 | 0 | 10.0 | 38.5 | 0 | | | 6.5 | 0.2 | 43.8 | 0.3 | ň | 44.3 | Ō | õ | 0.1 | 0 | 0.1 | |
| Total % | 2.4 | 46.8 | 0 | 0 | 49.2 | 2.5 | | 3,9 | 0.1 | 181 | 0.2 | 1230 | 8 | - ŏ | 1243 | Ő | 0 | 2 | 0 | .2 | 2789 |
| Cars | 68 | 1294 | 1 | 0 | 1363 | 69 | 0 | 110 | 2 | | 100 | 99.7 | 100 | ň | 99.7 | ŏ | õ | 100 | ` Ō | 100 | 99 |
| % Cars | 100 | 98.2 | 100 | 0 | 98.3 | 98.6 | 0 | 100 | 100 | 99.5 | | 33.1 | 0 | <u> </u> | A | Ō | - Ŭ | 0 | 0 | 0 | 29 |
| Trucks | 0 | 24 | 0 | . 0 | 24 | 1 | 0 | 0 | 0 | 1 | 0 | 4 | . 0 | Ö | 0.3 | ŏ | ŏ | õ | ŏ | õ | 1 |
| % Trucks | 0 | 1.8 | 0 | 0 | 1.7 | 1.4 | 0 | 0 | · 0 | 0.5 | 0 | 0.3 | Ų | v | 0.0 | 1 0 | v | v | Ŭ | Ť | 1 . |



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Location: Nauset Rd & Rt 6 Town: Eastham Counted by: JW Counters: 6

| | • | Fr | Rt 6 om No | | 1 | | | au s et rom E | | | | Fr | Rt 6 om Sc | | | | | ampun rom W | | | |
|---------------------|-------------|----------|---------------|-----------|--------------|--------|------|-----------------------------|----------------|------------|------|------|---------------|---------------|------------|------|------|----------------|----------------|------------|------------|
| Start Time | Left | Thru | Right | Pedestria | App. Total | Left | Thru | Right | Podastila n | App. Total | Left | Thru | Right | Podenida n | App. Total | Left | Thru | Right | Pedestria 0 | App. Total | Int, Total |
| Peak Hour Ar | nalysis | From | 16:00 t | 0 17:1 | 5 - Peak | 1 of 1 | | | | | | | | | | | | | | | |
| Peak Hour fo | r Entire | e Inters | ection | Begins | s at 16:0 | 0 | | | | | | | ~ | • | one l | 0 | 0 | | 0 | 4 | 559 |
| 16:00 | 8 | | 1 | 0 | 263 | 17 | 0 | 24 | 0 | 41 | 1 | 251 | 2 | U | 254 | U | 0 | 1 | 0 | 1 | 484 |
| 16:15 | 17 | 248 | 0 | 0 | 265 | 13 | 0 | 20 | 0 | 33 | 1 | 181 | 3 | 0 | 185 | 0 | 0 | | 0 | | 373 |
| 16:30 | 7 | 173 | 0 | 0 | 180 | 7 | 0 | 7 | 0 | 14 | 0 | 179 | 0 | 0 | 179 | Ű | 0 | 0 | 0 | 0 | |
| 16:45 | 8 | 158 | Ō | 0 | 166 | 4 | 0 | 20 | 0 | 24 | 0 | 186 | 2 | 0 | 188 | 0 | 0 | 0 | 0 | <u> </u> | 378 |
| Total Volume | 40 | 833 | 1 | 0 | 874 | 41 | 0 | 71 | 0 | 112 | 2 | 797 | 7 | 0 | 806 | 0 | 0 | 2 | 0 | 2 | 1794 |
| | | 95.3 | 0.1 | Ő | U 1 1 | 36.6 | Ō | 63.4 | 0 | | 0.2 | 98.9 | 0.9 | 0 | | 0 | 0 | 100 | 0 | | |
| % App. Total PHF | 4.6 .588 | ,820 | .250 | .000 | .825 | .603 | .000 | .740 | .000 | .683 | .500 | .794 | .583 | ,000 | ,793 | .000 | .000 | .500 | .000 | .500 | .802 |



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Location: Nauset Rd & Rt 6 Town: Eastham Counted by: JW Counters: 6

| | | | | | | | | | Grou | ups Prin | ted- C | ars | | | | | | | | | 1 |
|----------------------|----------|--------------|---------------|---------|------------|-------------|--------|----------------|-----------|------------|----------|------------|---------------|-----------|------------|--------|--------|----------------|-----------------|------------|------------|
| | | Fi | Rt 6 om No | | | | | auset rom E | | | | Fr | Rt 6 om Sc | | | | | ampun rom W | | | |
| Start Time | Left | | | Padesia | App. Total | Left | Thru | Right | Pecestria | App. Totel | Left | Thru | Right | Podostria | App. Total | Left | Thru | Right | Peciest/la n | App. Total | int. Total |
| 16:00 | 8 | 244 | 1 | 0 | 253 | 17 | 0 | 24 | 0 | 41 | 1 | 248 181 | 2 | 0 | 251 185 | 0 | 0 | 1 | 0 | 1 | 546 482 |
| 16:15 | 17 | 246 171 | 0 | 0 | 263 178 | 13 | 0 | 20 7 | 0 | 33 14 | 0 | 179 | 0 | Ő | 179 | Ő | Ő | ò | õ | Ó | 371 |
| 16:30 16:45 | 8 | 157 | Ő | 0 | 165 | 4 | Ö | 20 | ō | 24 | Ó | 186 | 2 | 0 | 188 | 0 | 0 | 0 | 0 | 2 | 377 |
| Total | 40 | 818 | 1 | 0 | 859 | 41 | 0 | 71 | 0 | 112 | 2 | 794 | 7 | 0 | 803 | 0 | 0 | 2 | U | 2 | 1 1770 |
| 17:00 | 13 | 221 | 0 | 0 | 234 270 | 17 | 0 | 32 | 2 0 | 51 18 | 0 3 | 226 210 | 0 | 0 0 | 226 214 | 0 | 0 0 | 0 0 | 0 0 | 0 0 | 511 502 |
| 17:15 Grand Total | 15 68 | 255 1294 | 1 | Ō | 1363 | 69 | 0 | 110 60,8 | 2 1.1 | 181 | 5 0.4 | 1230 99 | 8 0.6 | 0 | 1243 | 0 0 | 0 | 2 100 | 0 0 | 2 | 2789 |
| Apprch % Total % | 5 2.4 | 94.9 46.4 | 0.1 0. | 0 | 48.9 | 38.1 2.5 | 0 Q | | 0.1 | 6.5 | 0.4 | 44.1 | 0.3 | Õ | 44.6 | Ō | Ó | 0.1 | 0 | 0.1 | |

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Location: Nauset Rd & Rt 6 Town: Eastham Counted by: JW Counters: 6

| | | | | | | | N | auset | | os Printe | d- Tru | icks | Rt 6 | | | | | ampun | | | I |
|--|------|-----------------------------|------------------|------------------|----------------------|----------------------|------------------|------------------|------------------|--------------------|------------------|----------------------------|------------------|------------------|---------------------|------------------|------------------|------------------|------------------|------------------|------------|
| | | с. | Rt 6 om No | | | | | rom E | | | | Fr | om Sc | | | | <u> </u> | rom W | | | |
| Start Time | Left | | | Podostria | App. Total | Left | Thru | Right | Podesida | App. Total | Left | Thru | Right | Pedesiria | App. Total | Left | Thru | Right | Perissitz n | App. Total | Int. Total |
| | Lon | | Tugin | 0 | 10 | 0 | n | 0 | Ö | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | U | 13 |
| 16:00 | 0 | 10 | 0 | 0 | 2 | ů ů | ŏ | ŏ | Ō | 0 | 0 | . 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 16:15 16:30 | | 2 | 0 | ŏ | 2 | Ō | Ó | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Ő | 1 |
| 16:45 | ŏ | 1 | ŏ | Ō | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - 0 | <u> </u> | 3 | | 0 | | 0 | 0 | . 18 |
| Total | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | U | 3 | U | v | Ŭ | - | | | | | |
| 17:00 17:15 Grand Total Apprch % Total % | 0 | 3 6 24 100 82.8 | 0 0 0 0 | 0 0 0 0 | 3 6 24 82.8 | 0 1 100 3,4 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 0 1 1 3.4 | 0 0 0 0 | 1 0 4 100 13.8 | 0 0 0 0 | 0 0 0 0 | 1 0 4 13.8 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | 0 0 0 0 | |

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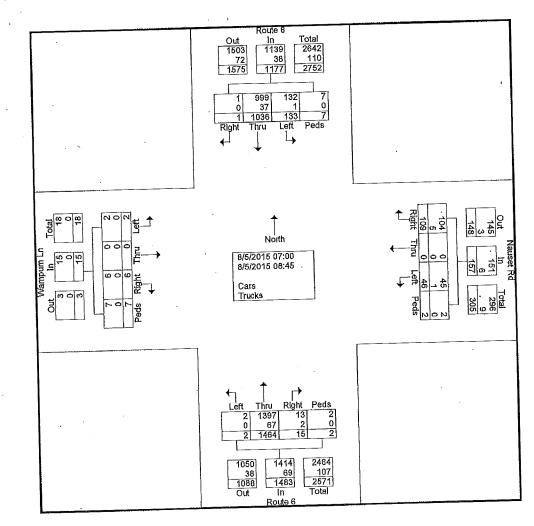
Location: Nauset Rd & Rt 6 Town: Eastham Counted by: JW Counters: 6

| | | | | | | | | (| Grou | ps Print | ed- Bi | kes | | | | | W | ampun | n Ln | | |
|-------------------------|-----|------------|----------------|-----|---------------|---------|----------|-------|-----------|-------------|--------|--------|---------------|----------|-------------|------|-----------------|-------|------------|------------|------------|
| | | | | | | | N | auset | | | | | Rt 6 om Sc | | | | F | rom W | lest | | |
| | | F . | Rt 6 rom No | rth | 1 | | F | rom E | ast | | | | | Paderbla | App. Total | Left | Thru | Right | Pedastils | App. Total | int. Total |
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| Start Time | | Thru | Right | | App: 10121 | 0. | 0 | 0 | 0 | Q | | 1 | 0 | 0 | ò | 0 | 2 | 0 | 0 | 2 | |
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| 16:15 *** BREAK * | | | | ~ | 0 | 1 0 | 5 | 0 | 0 | 5 | | 0 | 0 | 0 | | 0 | 2 | 0 | 0 | 2 | 9 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | Ő | 5 | 1 | 0 | 6 | 1 0 | 1 | v | | | 1 0 | , r | 0 | 0 | . 0 | 2 |
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| Grand Total Apprch % | 100 | . č | j c |) (|)) 6.2 | | 80 50 | 12.5 | | ,) 62.5 | 5 .0 |) 12.5 | 5 (|) (|) 12.0 | | | | | | |
| Total % | 6.2 | (|) (|) (| ι 0. <i>μ</i> | · I · · | | | | | | | | | | | | | | | |

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Location: Rt 6 @ Nauset Road (North End) Town: Eastham Counted by: PT Counters: 4

| | | | | | | | | Grou | ups Pr | rinted- (| Cars - | Truck | 5 | | | | 18/ | | 1 - | 1 | |
|-------------|------|------|-------|------|------------|------|--------|--------|------------|------------|--------|-------|-------|------|------------|------|------|-------|------|------------|------------|
| r | | | | | T | | Na | uset F | | T | | F | Route | 6 | | | | mpum | | | |
| | | | Route | | | | | om Ea | | | | Fre | om So | uth | | | | om W | | | |
| | | | om No | | | 1-4 | | | | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | | App. Total | Int. Total |
| Start Time | Left | | Right | Peds | App. Total | Left | | 11 | <u>n</u> | 12 | 0 | 142 | 1 | 0 | 143 | 0 | 0 | 0 | · 0 | 0 | 275 |
| 07:00 | 6 | 112 | 0 | 2 | 120 | 1 | 0 | 7 | . o | 8 | ō | 129 | 0 | 0 | 129 | 0 | 0 | 1 | 1 | 2 | 255 |
| 07:15 | 10 | 106 | 0 | 0 | 116 | 1 | 0 | 13 | . 0 | 16 | 2 | 193 | 2 | 2 | 199 | 0 | 0 | 0 | • 5 | 5 | 346 |
| 07:30 | 5 | 120. | 0 | 1 | 126 | 3 | 0 | 14 | 0 | 22 | ō | 209 | 2 | • 0 | 211 | 0 | 0 | 2 | 1 | 3 | 378 |
| 07:45 | 17 | 124 | 0 | 1 | 142 | 8 | 0 | 45 | 0 | 58 | 2 | 673 | 5 | 2 | 682 | 0 | 0 | 3 | 7 | 10 | 1254 |
| Total | 38 | 462 | 0 | 4 | 504 | 13 | 0 | 40 | U | 00 1 | - | | | | | | | | _ | | |
| | | | | _ | 101 | | 0 | 17 | 0 | 23 | 0 | 171 | 2 | 0 | 173 | 1 | 0 | 2 | 0 | 3 | 363 |
| 08:00 | 16 | 147 | 1 | 0 | 164 | 6 | 0 | 13 | 2 | 22 | õ | 183 | 1 | 0 | 184 | 0 | 0 | . 0 | 0 | 0 | 357 |
| 08:15 | 14 | 135 | 0 | 2 | 151 | | 0 | 11 | - 0 | 18 | ň | 231 | 1 | 0 | 232 | 1 | 0 | 0 | 0 | 1 | 430 |
| 08:30 | 38 | 140 | 0 | 1 | 179 | | U Q | 23 | 0 | 36 | ŏ | 206 | 6 | 0 | 212 | 0 | 0 | 1 | 0 | 7 | 428 |
| 08:45 | 27 | 152 | 0 | 0 | 179 | 13 | 0 | 64 | 2 | 99 | Ő | 791 | 10 | 0 | 801 | 2 | 0 | 3 | 0 | · 5 | |
| Total | 95 | 574 | 1 | 3 | 673 | 33 | 0 | 04 | 2 | 50 | Ŷ | | | | | • | | | _ | | 1543 |
| | • | | | | | 1 10 | | 400 | 2 | 157 | 2 | 1464 | 15 | 2 | 1483 | 2 | 0 | 6 | 7 | 15 | 2832 |
| Grand Total | 133 | 1036 | 1 | 7 | 1177 | | 0 | 109 | 1.3 | 1 vr | 0.1 | 98.7 | 1 | 0.1 | | 13.3 | 0 | 40 | 46.7 | | |
| Apprch % | 11.3 | 88 | 0.1 | 0.6 | | 29.3 | 0 | 69.4 | 0.1 | 5.5 | 0.1 | 51.7 | 0.5 | 0.1 | 52.4 | 0.1 | 0 | 0.2 | 0.2 | 0.5 | |
| Total % | 4.7 | 36.6 | 0 | 0.2 | 41.6 | 1.6 | . 0 | 3.8 | 2 | 151 | 2 | 1397 | 13 | 2 | 1414 | 2 | 0 | 6 | 7 | 15 | |
| Cars | 132 | 999 | 1 | 7 | 1139 | 45 | 0 | 104 | | 96.2 | 100 | 95.4 | 86.7 | 100 | 95.3 | 100 | 0 | 100 | 100 | 100 | |
| % Cars | 99.2 | 96.4 | 100 | 100 | 96.8 | 97.8 | 0 | 95.4 | <u>100</u> | 90.2 | 0 | 67 | 2 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | |
| Trucks | 1 | 37 | 0 | 0 | 38 | 1 | 0 | 5 | 0 | 3.8 | l õ | 4.6 | 13.3 | Ō | 4.7 | · 0 | 0 | 0 | 0 | 0 | 4 |
| % Trucks | 0.8 | 3.6 | 0 | 0 | 3.2 | 2.2 | 0 | 4.6 | U | J.Q | I U | 7.0 | 10.0 | | | | | | | | |



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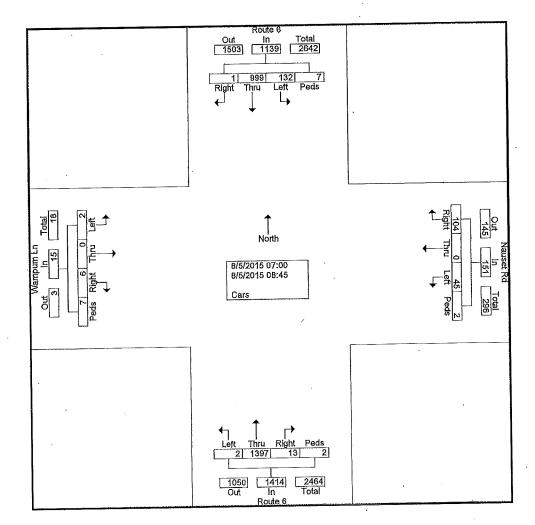
Location: Rt 6 @ Nauset Road (North End) Town: Eastham Counted by: PT Counters: 4

| | | F | Route | 6 seth | | | | uset om Ea | | | | | Route om So | | | | Wa Fr | mpun om W | n Ln est | | |
|----------------------------|----------|------------|-----------|-------------|----------------|--------|------|---------------|-------------------------|-------------|----------------|--------------------------|----------------|-------|------------|-------|--------------|--------------|-------------|------------|------------|
| Object Time | 1 - 61 | Fro | DINING | Dedn | App. Total | Loft | Thru | Pight | Dode | Ann Tabel | Left | Thru | Right | Peds | App. Total | Left | | | Peds | App. Total | Int. Total |
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| Peak Hour for | | Interse | | Begins 0 | a (08:0 164 | 6 | 0 | 17 | 0 | 23 | 0 | 171 | 2 | 0 | 173 | 1 | 0 | 2 | 0 | 3 | 363 |
| 08:00 08:15 | 16 14 | 147 135 | 1 0 | 2 | 151 | 7 | 0 | 13 | 2 | 22 | ŏ | 183 | 1 | · Õ | 184 | ó | Ō | 0 | 0 | 0 | 357 |
| 08:30 | 38 | 140 | 0 | 1 | 179 | 7 | Ő | 11 | ō | 18 | ŏ | 231 | 1 | Ō | 232 | 1 | 0 | 0 | 0 | 1 | 430 |
| 08:45 | 27 | 152 | ŏ | ò | 179 | 13 | õ | 23 | Ō | 36 | Ō | 206 | 6 | 0 | 212 | 0 | 0 | 1 | 0 | 1 | 428 |
| Total Volume | 95 | 574 | 1 | 3 | 673 | 33 | 0 | 64 | 2 | 99 | 0 | 791 | 10 | 0 | 801 | 2 | 0 | 3 | 0 | 5 | 1578 |
| % App. Total | 14.1 | 85.3 | 0.1 | 0.4 | | 33,3 | .0 | 64.6 | 2 | | ۵ | 98.8 | 1.2 | 0 | | 40 | 0 | 60 | 0 | 417 | .917 |
| PHF | .625 | .944 | .250 | .375 | .940 | .635 | ,000 | .696 | .250 | .688 | ,000 | ,856 | .417 | ,000, | .863 | .500 | .000 | .375 | .000 | .417 | .917 |
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| | | | | | | | | 4 | Pea | k Ho | ur D | ata | | | | _ | | | | | |
| | | | Total | <u>ا</u> ا | | | | | | Ť | | | | | t | Right | 105 | 2 | | | |
| | | | | | 5 2 . | | | | | Nort | h | | | | 4 | _= | 5 | 7 | | | |
| | | | Nampum Ln | Ω Ι | Ĕ | | | | Peak | Hour Beg | hs at 08 | :00 | | | • | 50 | | lauset Rd | | | |
| | | | dua | ן ר | aht o | | | | | | | | | | Ţ | ff 33 | 99 | Ra | | | |
| | | | | ㅋ | _§ | | | | Cars | ks | | | | | + | 1 1 | п. | | | | |
| | | | out | | Peds 0 | | | | | | | | | | | Peds | 204 | Ĭ | | | |
| | | | 1 | | d. | | | | | | | | | | | 5 | [<u>4</u>] | | | | |
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| | | | | | | | | | | Rout | <u> </u> | | | | | | | | | | |

www.capecodcommission.org

Location: Rt 6 @ Nauset Road (North End) Town: Eastham Counted by: PT Counters: 4

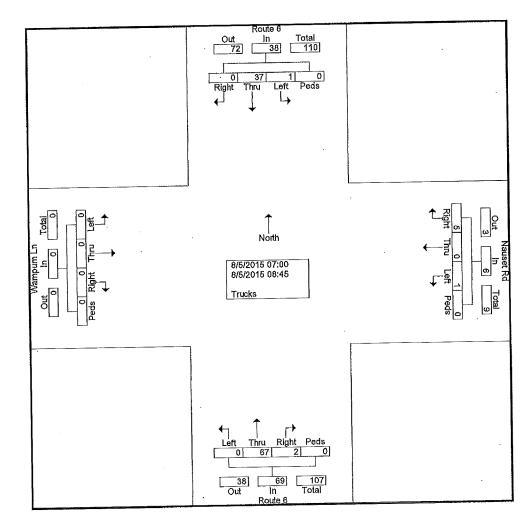
| | Groups Printed- Cars | | | | | | | | | | | | | | i i | | | | | | |
|-------------|----------------------|------|-------|-----------|-------------------|-----------|--------|-------|------|------------|------|-------|-------|----------|------------|-----------|------|-------|------|------------|------------|
| | | | Route | 6 | | Nauset Rd | | | | | | Route | 6 | | | | mpun | | | | |
| | | | om No | | | | | rom E | | | | Fr | om So | uth | | From West | | | | | |
| Olard Times | Laft | | Right | Peds | Are Tabl | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App, Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| Start Time | _Left | Thru | Right | Peus 2 | App, Total 118 | 1 | 0 | 10 | 0 | 11 | 0 | 131 | 0 | 0 | 131 | 0 | 0 | 0 | 0 | 0 | 260 |
| 07:00 | 6 | 110 | 0 | | 115 | 4 | n n | 7 | ň | 8 | õ | 120 | 0 | 0 | 120 | 0 | 0 | 1 | 1 | 2 | 245 |
| 07:15 | 10 | 105 | 0 | 0 | | | 0 | 12 | ŏ | 15 | 2 | 179 | 2 | 2 | 185 | 0 | 0 | 0 | 5 | 5 | 327 |
| 07:30 | 5 | 116 | 0 | 1 | 122 | 3 | 0 | 14 | . 0 | 22 | ō | 203 | 1 | ō | 204 | 0 | 0 | 2 | 1 | 3 | 363 |
| 07:45 | 17 | 116 | 0 | | 134 | 8 | - 0 | 43 | 0 | 56 | 2 | 633 | 3 | 2 | 640 | 0 | 0 | 3 | 7 | .10 | 1195 |
| Total | 38 | 447 | 0 | 4 | 489 | 13 | 0 | 43 | U | 50 | 2 | 000 | U | - | 0.0 | - | | | | | |
| | | | | | | | ~ | | ^ | 19 | 0 | 167 | 2 | 0 | 169 | 1 | 0 | 2 | 0 | 3 | 350 |
| 08:00 | 16 | 142 | 1 | 0 | 159 | 5 | 0 | 14 | 0 | | 0 | 178 | 4 | ň | 179 | Ó | Ō | Ö | Ō | 0 | 345 |
| 08:15 | 14 | 128 | 0 | 2 | 144 | 7 | 0 | 13 | 2 | 22 | 0 | 220 | 4 | 0 | 221 | 1 | Ň. | ñ | n | 1 | 411 |
| 08:30 | 37 | 133 | 0 | 1 | 171 | 7 | 0 | 11 | 0 | 18 | 0 | | -6 | 0 | 205 | l 'n | ň | 1 | ō | 1 | 418 |
| 08:45 | 27 | 149 | . 0 | 0 | 176 | 13 | 0 | 23 | 0 | 36 | 0 | 199 | | | | 2 | — ŏ | 3 | Ō | 5 | 1524 |
| Total | 94 | 552 | 1 | 3 | 650 | 32 | 0 | 61 | . 2 | 95 | 0 | 764 | 10 | 0 | 774 | 2 | 0 | 0 | Ŷ | Ŷ | |
| | · . | | | | | | | | | | | | 4.5 | <u>^</u> | | 1 0 | • | 6 | 7 | 15 | 2719 |
| Grand Total | 132 | 999 | 1 | 7 | 1139 | 45 | 0 | 104 | 2 | 151 | 2 | 1397 | 13 | 2 | 1414 | 40.0 | 0 | 40 | 467 | 14 | 2.10 |
| Apprch % | 11.6 | 87.7 | 0.1 | 0.6 | | 29.8 | 0 | 68.9 | 1.3 | | 0.1 | 98.8 | 0.9 | 0.1 | | 13.3 | 0 | | 46.7 | 0.6 | |
| Total % | 4,9 | 36.7 | 0 | 0.3 | 41.9 | 1.7 | 0 | 3,8 | 0.1 | 5.6 | 0.1 | 51.4 | 0.5 | 0.1 | 52 | 0.1 | 0 | 0.2 | 0.3 | 0.0 | ł |
| i otar 70 | 1 10 | | - | | | | | | | | | | | | | | | | | | |



www.capecodcommission.org

Location: Rt 6 @ Nauset Road (North End) Town: Eastham Counted by: PT Counters: 4

| | Groups Printed- Trucks | | | | | | | | | | | | | | | | | | | | |
|-------------|------------------------|----------|-------|--------|------------|------|--------|--------|------|------------|------|------|-------|--------|------------|----------|------|-------|----------|------------|------------|
| | | | Route | 6 | Τ | | N | auset | | | | | Route | | | | | impur | | | |
| | | | om No | | | | F | rom Ea | ast | | | Fre | om So | uth | | | | rom W | | | |
| Of a Time | Left | Thru | | | App. Total | Left | | | Peds | App, Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| Start Time | Leit | | Right | reus (| App. 101al | 0 | 0 | 1 | 0 | 1 | 0 | 11 | 1 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 15 |
| 07:00 | 0 | 2 | 0 | 0 | 4 | 0 | Š | ò | ň | ó | ō | 9 | 0 | 0 | . 9 | 0 | 0 | 0 | 0 | 0 | 10 |
| 07:15 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | U A | 0 | 4 | õ | 14 | ň | ñ | 14 | 0 | 0 | 0 | 0 | 0 | 19 |
| 07:30 | 0 | 4 | 0 | 0 | 4 | . 0 | 0 | 1 | 0 | | 0 | 6 | 1 | ň | 7 | Ő | Ď | 0 | 0 | 0 | 15 |
| 07:45 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | | 2 | | 42 | Ő | - n | 0 | 0 | 0 | 59 |
| Total | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 2 | 0 | 2 | 0 | 40 | Z | U | -12 | Ŭ | U | U | - | | 1 |
| | | | | | | | | | | | • | | ~ | • | 4 | <u>م</u> | 0 | ٥ | <u>ہ</u> | 0 | 13 |
| 08:00 | 0 | 5 | 0 | 0 | 5 | 1 | 0 | 3 | 0 | 4 | U | 4 | 0 | U O | . 4 | 0 | Ň | ŏ | ň | ñ | 12 |
| 08:15 | ň | 7 | 0 | 0 | 7 | . 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | Ū. | 5 | | 0 | ő | 0 | ň | 19 |
| 08:30 | 1 | 7 | 0 | ō | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | ő | 10 |
| | | ` | õ | ň | 3 | Ň | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | <u> </u> | |
| 08:45 | <u> </u> | | 0 | 0 | 23 | 1 | 0 | 3 | 0 | 4 | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 54 |
| Total | 1 | 22 | 0 | 0 | 25 | 1 | v | Ŭ | | • | - | | | | | • | | | | | |
| | | | - | | | 1 A | 0 | 5 | Ω | 6 | 0 | 67 | 2 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 113 |
| Grand Total | 1 | 37 | Q | 0 | 38 | | U O | - | Š | Ŷ | l õ | 97.1 | 2.9 | ō | | Ιo | 0 | 0 | 0 | | |
| Apprch % | 2.6 | 97.4 | 0 | 0 | | 16.7 | 0 | 83.3 | 0 | ~ • | | | 1.8 | Ő | 61.1 | ŏ | ō | 0 | 0 | 0 | l |
| Total % | 0.9 | 32.7 | 0 | 0 | 33.6 | 0.9 | 0 | 4.4 | 0 | 5.3 | 0 | 59.3 | 1.0 | Ų | Q 1.1 | 1 0 | Ŷ | v | Ť | - | 1 |

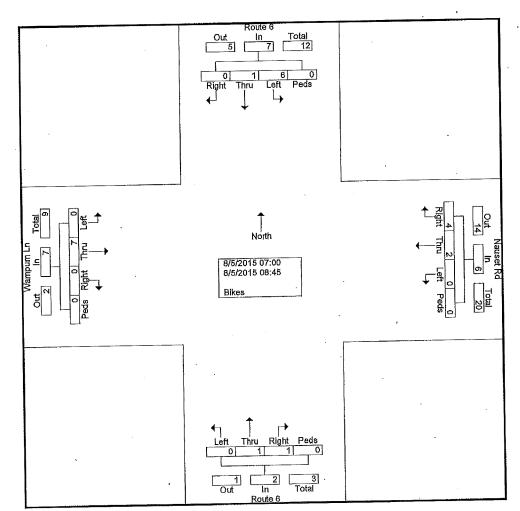


Cape Cod Commission

3225 Main St, Barnstable, MA, 02630

Location: Rt 6 @ Nauset Road (North End) Town: Eastham Counted by: PT Counters: 4

| | Groups Printed- Bikes | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|-----------------------|------------------|-------------|-------------|------------|------------------------|------------------|-------------------|-------------|-----------------------|-------------|----------------|----------------|------------------------|------------|-------------|------------------|-------------|-------------|------------|------------|
| | Route 6 From North | | | | | Nauset Rd From East | | | | Route 6 From South | | | | Wampum Ln From West | | | | | | | |
| Start Time | Left | | Right | | App. Total | Left | | Right | | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| *** BREAK ** 07:30 | | Û | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 5 |
| *** BREAK ** | * | | | | 0 | | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 5 |
| Total | 0 | U | U | 0 | | 0 | ' | , | , , | 0 | 0 | 0 | 1 | n | 1 | 0 | . 1 | 0 | 0 | 1 | 7 |
| 08:00 | 4 | 1 | 0 | 0. 0 | · 5 0 | | 0 | 2 | 0 | 2 | 0 | ő | ó | ŏ | Ó | Ō | . 1 | Ō | 0 | 1 | 3 |
| 08:15 08:30 | | 0 | 0 | 0 | 0 | 0 | ŏ | ō | ŏ | ō | Ō | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 3 |
| 08:45 | 2 | Ō | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | <u> </u> | 0 | 2 | 0 | 4 | 0 | 0 | 4 | 17 |
| Total | 6 | 1 | 0 | 0 | 7 | 0 | · 1 | 3 | 0 | 4 | 0 | 1 | ' | Ŭ | | | | _ | _ | - | |
| Grand Total Apprch % Total % | 6 85.7 27.3 | 1 14.3 4.5 | 0 0 0 | 0 0 0 | 7 31.8 | 0 0 0 | 2 33.3 9.1 | 4 66.7 18.2 | 0 0 0 | 6 27.3 | 0 0 0 | 1 50 4.5 | 1 50 4,5 | 0 0 0 | 2 9.1 | 0 0 0 | 7 100 31.8 | 0 0 0 | 0 0 0 | ۲ 31.8 | 22 |



Cape Cod Commission 3225 Main Street

3225 Main Street Barnstable MA 02630 www.capecodcommission.org

Site: 20741 Location: Nauset Rd E of Rt 6 (North End) Town: Eastham Counter: TP-2

Site Code: 20741 Station ID:

Latitude: 0' 0.000 Undefined

| Start | 09-Jul-12 | 10-Jul-12 | 11-Jul-12 | 12-Jul-12 | 13-Jul-12 | 14-Jul-12 | 15-Jul-12 | Week | Weekday Average |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|--------------------|
| Time | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Average | Average 8 |
| 12:00 AM | * | 3 | 12 | * | * | * | - | 8 | 5 |
| 01:00 | * | 4 | 6 | * | * | * | | 5 | 2 |
| 02:00 | * | 2 | 3 | * | * | * | | 2 | 2 |
| 03:00 | * | 2 | 3 | * | * | * | | 2 | 2 |
| 04:00 | * | 2 | 3 | * | * | * | | 2 | 15 |
| 05:00 | * | 16 | 14 | * | * | * | - | 15 | 38 |
| 06:00 | * | 40 | 35 | * | * | * | | 38 | 78 |
| 07:00 | * | 88 | 67 | * | * | * | | 78 | 168 |
| 08:00 | * | 166 | 169 | * | * | * | | 168 | 156 |
| 09:00 | * | 160 | 151 | * | * | * | | 156 | 154 |
| 10:00 | * | 158 | 149 | * | * | * | | 154 | |
| 11:00 | * | 169 | 175 | * | * | * | | 172 | 172 |
| 12:00 PM | 222 | [217] | 224 | * | * | * | * | 221 | 22 |
| 01:00 | 129 | L-128- | * | * | * | * | * | 128 | 12 |
| 02:00 | 145 | 152 | * | * | * | * | * | 148 | 14 |
| 02:00 | 155 | 147 | * | * | * | * | * | 151 | 15 |
| 04:00 | 138 | 157 | * | * | * | * | * | 148 | [14 |
| 04.00 | 149 | 150 | * | * | * | * | * | 150 | 15 |
| 06:00 | 136 | 131 | * | * | * | * | * | 134 | 13 |
| 08.00 | 113 | 100 | * | * | * | * | * | 106 | 10 |
| 07:00 | 85 | 56 | * | * | * | * | * | 70 | 7 |
| | 52 | 52 | * | * | * | * | * | 52 | 5 |
| 09:00 | 23 | 34 | * | * | * | * | * | 28 | 2 |
| 10:00 11:00 | 13 | _ 15 | * | * | * | * | * | 14 | 1 |
| Total | 1360 | [2149] | 1011 | 0 | 0 | 0 | 0 | | |
| | 63.3% | 100.0% | 47.0% | 0.0% | 0.0% | 0.0% | 0.0% | | |
| Percentage | 03.370 | 11:00 | 11:00 | | | 1 | | | |
| AM Peak | | 169 | 175 | i. | | | | | |
| Vol. | | 100 | | | | | | | |
| PM Peak | 12:00 | 12:00 | 12:00 | | | | | | |
| Vol. | 222 | 217 | 224 | | * | | | | - Fou |
| Total | LLL | 211 | | | | - | | 2150 | 215 |
| Total | | | | | | | | | |

Page 1

Cape Cod Commission 3225 Main Street Barnstable MA 02630 www.capecodcomm(sslon.org

Site: 20741 Location: Nauset Rd E of Rt 6 (North End) Town: Eastham Counter: TP-2

Site Code: 20741 Station ID:

Latitude: 0' 0.000 Undefined

| | | | | | | | | | | | | | • | | Weekda | |
|----------|---------|-------|-------|-------|---------|----------|-----|----|-----|----|----|-----|--------|----|--------|-------|
| | , | | | | 14/- | d | Thu | 1 | Fri | | Sa | | Su | | EB | WB |
| Start | 09-Jul- | .12 | Tu | | We | WB | EB | WB | EB | WB | EB | WB | EB | WB | 6 | 2 |
| Time | EB | WB | EB | WB | EB | 2 | * | * | * | * | * | * | * | * | 4 | 1 |
| 12:00 AM | * | * | 2 | 1 | 10 5 | 1 | * | * | * | * | * | * | * | * | 2 | 1 |
| 01:00 | * | * | 3 | 1 | C | 2 | * | * | * | * | * | * | * | * | 2 | 1 |
| 02:00 | * | * | 2 | 0 | | 2 | * | * | * | * | * | | * | * | õ | 2 |
| 03:00 | * | * | 2 | 0 | | 2 | * | * | * | * | * | | + | * | 7 | 8 |
| 04:00 | * | * | 0 | 2 | | 8 | * | * | * | * | * | * | - - | * | 14 | 24 |
| 05:00 | * | * | 8 | 8 | 6 | 25 | * | * | * | * | * | * | - - | ** | 28 | 49 |
| 06:00 | * | * | 18 | 22 | 10 | 41 | * | * | * | * | * | * | 1 | * | 76 | 92 |
| 07:00 | * | * | 31 | 57 | 26 | 93 | * | * | * | * | * | * | | * | 60 | 95 |
| 08:00 | * | * | 75 | 91 | 76 | 93 | * | * | * | * | * | * | * | * | 60 | 94 |
| 09:00 | * | * | 64 | 96 | 57 | 94 | * | * | * | * | * | * | * | * | 60 | 112 |
| 10:00 | * | * | 62 | 96 | 57 | | * | * | * | * | * | * | * | * | | 151 |
| 11:00 | * | * | 56 | 113 | 64 | 111 | * | * | * | * | * | * | * | * | 70 | 86 |
| 12:00 PM | 63 | 159 | 71 | 146 | 75 | 149 | * | * | * | * | * | * | * | | 42 | 100 |
| 01:00 | 47 | 82 | 37 | 91 | * | | * | * | * | * | * | * | * | * | 49 | 100 |
| 02:00 | 50 | 95 | 48 | 104 | * | * | * | * | * | * | * | * | * | | 51 | 92 |
| 03:00 | 49 | 106 | 53 | 94 | * | * | * | * | * | * | * | * | * | * | 56 | 92 |
| 04:00 | 53 | 85 | 58 | 99 | * | * | * | * | * | * | * | * | * | | 56 | 82 |
| 05:00 | 60 | 89 | 51 | 99 | * | | * | * | * | * | * | * | * | * | 52 | 68 |
| 06:00 | 59 | 77 | 45 | 86 | * | * | * | * | * | * | * | * | * | | 38 | 39 |
| 07:00 | 41 | 72 | 36 | 64 | * | * | | * | * | * | * | * | * | * | 32 | 26 |
| 08:00 | . 37 | 48 | 26 | -30 | * | | * | * | * | * | * | * | * | * | 26 | 12 |
| 09:00 | 22 | 30 | 29 | 23 | * | <u> </u> | * | * | * | * | * | * | * | * | 16 | 6 |
| 10:00 | 14 | 9 | 18 | 16 | * | .] | * | * | * | * | * | * | * | | 8 | 1337 |
| 11:00 | 9 | 4 | 7 | 8 | * | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 815 | |
| Total | 504 | 856 | 802 | 1347 | 389 | 622 | 0 | | Ŭ | - | C |) | (|) | 21 | 11:00 |
| Day | | 60 | 21 | | | 11 | U | | 0 | | | | | | 08:00 | 112 |
| - 'eak | | | 08:00 | 11:00 | 08:00 | 11:00 | | | | | | | | | 76 | 12:00 |
| Vol. | | | 75 | 113 | 76 | 111 | | | | | | | | | 12:00 | 12.00 |
| PM Peak | 12:00 | 12:00 | 12:00 | 12:00 | 12:00 | 12:00 | | | | | | | | | 70 | 101 |
| Vol. | 63 | 159 | 71 | 146 | 75 | 149 | | | | | | | | | | |
| v01. | 00 | | | | | | | | | | | | | | | |
| | | | | | | | | | | 0 | | . 0 | | 0 | | 2152 |
| Comb | 6 | 1360 | | 2149 | | 1011 | | 0 | | 0 | | 0 | | | | |
| Tota | | 1300 | | 4110 | | | | | | | | | | | | |
| 1013 | C) | | | | | | | | | | | | | | | |

ADT ADT 2,146 AADT 2,146

21358-07132015

MassDOT Highway Division WEEKLY SUMMARY FOR LANE Starting: 7/13/2015

STA. 15

TO TATL

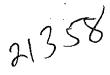
File: V15-0304.prn City: EASTHAM County: VOL E&W

Page: 3

Site Reference: 150290000497 Site ID: 00000001503 Location: RTE. 6, NORTH OF NAUSET RD. Direction: ROAD TOTAL

| TIME | MON 13 | TUE 14 | WED | тни | FRI | WKDAY AVG | SAT | SUN | WEEK AVG | TOTAL |
|--------------------------|--------------|--------------|-----|-----|-----|--------------|-----|-----|-------------|-------|
| | | | | | | 101 | | | 125 | 250 |
| 01:00 | 138 | 112 | | | | 125 76 | | | 76 | 153 |
| 02:00 | 104 | 49 | | | | 37 | | | 37 | 75 |
| 03:00 | 47 | 28 | | | | 48 | | | 48 | 97 |
| 04:00 | 67 | 30 | | | | 74 | | | 74 | 149 |
| 05:00 | 88 | 61 | | | | . 223 | | | 223 | 447 |
| 06:00 | 262 | 185 | | | | 555 | | | 555 | 1111 |
| 07:00 | 579 | 532 | | | | 1053 | | | 1053 | 2107 |
| 08:00 | 1100 | 1007 | | | | 1427 | | | 1427 | 2854 |
| 09:00 | · 1407 | 1447 | | | | 1623 | | | 1623 | 3246 |
| 10:00 | 1629 | 1617 | | | | 1830 | | | 1838 | 3676 |
| 11:00 | (1915) | 1761 | | | | 1809 | | | 1809 | 3618 |
| 12:00 | 1828 | 1790 2045 | | | | 1965 | | • | 1965 | 3931 |
| 13:00 | 1886 | 2045 | | | | 1860 | | | 1860 | 3720 |
| 14:00 | 1672 | 1815 | | | | 1777 | | | 1777 | 3555 |
| 15:00 | 1740 1830 | 1815 | | | | 1845 | | | 1845 | 3690 |
| 16:00 | 1830 | 1934 | | | | (1908) | • | | 1908 | 3817 |
| 17:00 | 1773 | 1892 | | | | 1832 | | | 1832 | 3665 |
| 18:00 | 1595 | 1609 | | | | 1602 | | | 1602 | 3204 |
| 19:00 | 1407 | 1265 | | | | 1336 | | | 1336 | 2672 |
| 20:00 | 1087 | 1110 | | | | 1098 | | | 1098 | 2197 |
| 21:00 | 810 | 1110 | | | | 810 | | | 810 | 810 |
| 23:00 | 532 | | | | | 532 | | | 532 | 532 |
| 24:00 | 422 | | | | | 422 | | | 422 | 422 |
| 24:00 | 466 | | | | | | | | | |
| TOTALS | 25801 | 24197 | 0 | 0 | 0 | 25875 | 0 | 0 | 25875 | 49998 |
| ፄ AVG WKDY ፄ AVG WEEK | 99.7 99,7 | 93,5 93,5 | | | | | • | | | |
| NM Mimor | 11:00 | 12:00 | | | | 11:00 | | | 11:00 | |
| AM Times AM Peaks | 1915 | 1790 | | | | 1838 | | | 1838 | |
| DM mimor | 13:00 | 14:00 | | | | 13:00 | | | 13:00 | |
| PM Times PM Peaks | 1986 | 2048 | | | | 1965 | | | 1965 | |
| D% K% | 55 7 | 55 8 | | | | | | | U2 | |
| | | | | | | | , | | | |

COMBAWD 25875 FAC ,92(196) COMBADT 22,900



MassDOT Highway Division WEEKLY SUMMARY FOR LANE 1 Starting: 7/13/2015

Page: 1

File: V15-0304.prn

City: EASTHAM

County: VOL E&W

5TA. 15 EB

Site Reference: 150290000497 Site ID: 00000001503 Location: RTE. 6, NORTH OF NAUSET RD. Direction: EAST

TOTAL WKDAY SAT SUN WEEK WED THU FRI TIME MON TUE AVG AVG _ _ _ ____ 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 (1060) 11;00 12:00 13:00 14:00 15:00 16:00 (823) 17:00 77B 18:00 19:00 20:00 21:00 22;00 23:00 24:00 ---------0 12746 0 (12746) TOTALS 98.8 96.8 % AVG WKDY 96.8 % AVG WEEK 98.0 12:00 12:00 11:00 12:00 AM Times AM Peaks 13:00 13:00 PM Times 13:00 13:00 PM Peaks

2

MassDOT Highway Division WEEKLY SUMMARY FOR LANE 2 Starting: 7/13/2015

Page: 2

File: V15-0304.prn City: EASTHAM County: VOL E&W

STA. 15 WB

SB

Site Reference: 150290000497 Site ID: 00000001503 Location: RTE. 6, NORTH OF NAUSET RD. Direction: WEST

| TIME | MON 13 | TUE 14 | WED | Thu | FRI | WKDAY AVG | SAT | SUN | WEEK AVG | TOTAL |
|------------|-----------|-----------|-----|-----|-----|--------------|-----|-----|-------------|--------------|
| 01:00 | 73 59 | 67 29 | | | | 70 44 | | | 70 44 | 140 88 |
| 03:00 | 20 | 18 | | | | 19 | | | 19 | 38 |
| 04:00 | 33 | 18 | | | | 25 | | | 25 | 51 |
| 05:00 | 58 | 29 | | | | 43 | | | 43 | 87 |
| 06:00 | 170 | 97 | | | | 133 | | | 133 . | 267 |
| 07:00 | 300 | 256 | | | | 278 | | | 278 | 556 |
| 08:00 | 547 | 453 | | | | 500 | | | 500 | 1000 |
| 09:00 | 658 | 638 | | | , | 648 | | | 648 | 1296 |
| 10:00 | 786 | 707 | | | ý | 746 | | | 746 | 1493 |
| 11:00 | (855) | 750 | | | | 802 | | | 802 | 1605 |
| 12:00 | 778' | 759 | | | | 768 | | | 768 | 1537 |
| 13:00 | 752 | 897 | | | | 824 | | | 824 | 1649 |
| 14:00 | 762 | 961 | • | | | 861 | | | 861 878 | 1723 1756 |
| 15:00 | 873 | 883 | | | | 878 | | | 878 1018 | 2037 |
| 16:00 | 1045 | 992 | | | | 1018 | • | | 1018 | 2171 |
| 17:00 | 1086 | 1085 | | | | (1085) | | | 1085 | 2109 |
| . 18:00 | 984 | 1125 | | | | 1054 | | | 862 - | 1725 |
| 19:00 | 866 | 859 | | | | 862 652 | | | 652 | 1304 |
| 20:00 | 693 | 611 | | | | 604 | | | 604 | . 1209 |
| 21:00 | 594 | 615 | | | | 533 | | | 533 | 533 |
| 22:00 | 533 | ۰. | | | | 354 | | | 354 | 354 |
| 23:00 | 354 | | | | | 322 | | | 322 | 322 |
| 24:00 | 322 | | | | | • | | | 522 | |
| TOTALS | 13201 | 11849 | 0 | 0 | 0 | (13123) | 0 | 0 | 13123 | 25050 |
| & AVG WKDY | | 90.2 | | | | | | | | |
| % AVG WEEK | 100.5 | 90.2 | | | | | | | | |
| AM Times | 11:00 | 12:00 | | | | .11:00 | | | 11:00 | |
| | 855 | 759 | | | | 802 | | • | 802 | |
| AM Peaks | 000 | 2.0 | | | | | | | | |
| PM Times | 17:00 | 18:00 | | | | 17:00 | | | 17:00 | |
| PM Peaks | 1086 | 1125 | | | | 1085 | • | | 1065 | |
| th teaks | 1000 | | | | | | | | | |

21359 - 07132015 MassDOT Highway Division WEEKLY SUMMARY FOR LANE Starting: 7/13/2015

Page: 3

File: V16~0304,prn

City: EASTHAM

County: VOL E&W

STA.16

TOTAL

Site Reference: 150290000529 Site ID: 00000001603 Location: RTE. 6, SOUTH OF NAUSET RD. Direction: ROAD TOTAL

TIME MON TUE WED THU FRT WKDAY SAT SUN WEEK TOTAL AVG AVG ----..... -----01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09;00 10:00 11:00 1.980 (²³⁰¹ 2285 12:00 13:00 14:00 15:00 16:00 (2325) 17:00 18:00 19:00 20:00 21:00 22:00 23:00 24:00 TOTALS 22226 . % AVG WKDY 90.6 99.7 ✤ AVG WEEK 98.6 99.7 AM Times 11:00 12:00 12:00 12:00 12:00 12:00 AM Peaks 17;00 PM Times 17:00 16:00 17:00 17:00 17:00 PM Peaks D₽ К¥ ß

COMBAND 30431 FAR ,92(.96) COMBADT 26,900

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MassDOT Highway Division WEEKLY SUNMARY FOR LANE 1 Starting: 7/13/2015

STA. 16 EB

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Page: 1

File: V16-0304.prn City: EASTHAM County: VOL E&W

Site Reference: 150290000529 Site ID: 00000001603 Location: RTE. 6, SOUTH OF NAUSET RD. Direction: EAST

| Ϋ́ INE | MON 13 | TUE 14 | WED . 15 | THU 16 | FRI | WKDAY AVG | SAT | SUN | WEEK AVG | TOTAL |
|----------------------|---------------|---------------|---------------|---------------|-----|---------------|------------|-----|---------------|-----------|
| 01:00 | 59 | 40 | 59 | 58 | | 54 | | | 54 | 216 |
| 02:00 | 39 | 19 | 31 | 26 | | 28 | | | 28 18 | 115 74 |
| 00:00 | 26 | 10 | 16 | 22 | | 18 16 | | | 16 | .66 |
| 04:00 | 30 | 12 | 13 | 11 | | 31 | | | 31 | . 125 |
| 05:00 | 27 | 30 | 34 116 | 34 97 | | 94 | | | 94 | 379 |
| 06:00 | 85 | 81 | 286 | 268 | | 265 | | | 265 | 1060 |
| 07:00 | 258 507 | 248 513 | 280 537 | 200 538 | | 523 | | | 523 | 2095 |
| 08:00 09:00 | 507 683 | 727 | 537 674 | 742 | | 706 | | | 706 | 2826 |
| 10:00 | 784 | 826 | 074 | 927 | | 842 | | | 842 | 3368 |
| 11:00 | 981 | 926 | 1011 | 1008 | | 1001 | | | 1001 | 4006 |
| 12:00 | 901 996 | 951 | (1024) | 1105 | | 1019 | | | 1019 | 4076 |
| 13:00 | 1037 | 1009 | 1026 | 1139 | | 1052 | | | 1052 | 4211 |
| 14:00 | 867 | 999 | 891 | 968 | | 931 | | | 931 | 3725 |
| 15:00 | 817 | 859 | | 866 | | 843 | | | 843 | 3374 |
| 16:00 | 721 | 802 | 846 | · 890 | | 814 | | | 814 | 3259 |
| 17:00 | 740 | 775 | 759 | 896 | | (792) | | | 792 | 3170 |
| 18:00 | 720 | 707 | 757 | 220 | | 728 | 、 . | | 728 | 2184 |
| 19:00 | 672 | 696 | 682 | | | 683 | | | 683 | 2050 |
| 20:00 | 663 | 603 | 563 | | | 609 | | | 609 | 1829 |
| 21:00 | 469 | 470 | 426 | | | 455 | | | 455 | 1365 |
| 22:00 | 268 | 351 | 349 | | | 322 | | | 322 | 968 |
| 23:00 | 168 | 223 | 244 | | | 211 | | | 211 | 635 |
| 24:00 | 92 | 104 | 103 | | | 99 | | | 99 | 299 |
| | | | | | | | | | | |
| TOTALS | 11709 | 11981 | (12110) | 9675 | 0 | (12136) | 0 | 0 | 12136 | 45475 |
| | 96.4 96,4 | 98.7 98.7 | 99.7 99.7 | 79.7 79.7 | | | • | | | |
| AM Times AM Peaks | 12:00 996 | 12:00 951 | 12:00 1024 | 12:00 1105 | | 12:00 1019 | | | 12:00 1019 | |
| PM Times PM Peaks | 13:00 1037 | 13:00 1009 | 13:00 1026 | 13:00 1139 | | 13:00 1052 | | | 13:00 1052 | |

MassDOT Highway Division WEEKLY SUMMARY FOR LANE 2 Starting: 7/13/2015

STA. 16 WB

Page: 2

File: V16-0304.prn

City: EASTHAM

County: VOL E&W

Site Reference: 150290000529 Site ID: 00000001603 Location: RTE. 6, SOUTH OF NAUSET RD. Direction: WEST

SUN WEEK TOTAL MON THU FRI WKDAY SAT TUE WED TIME AVG AVG 01:00 02:00 03:00 04:00 05:00 06:00 1.60 07:00 OB:00 09:00 10:00 11:00 (1277) 12:00 13:00 14:00 15:00 16:00 61.31 17:00 18:00 19:00 20:00 21:00 22:00 23:00 24:00 -----Ø TOTALS & AVG WKDY 100.8 98.6 99.7 68.6 99.7 68,6 & AVG WEEK 100.8 98.6 11:00 12:00 12:00 12:00 11:00 11:00 AM Times AM Peaks 17:00 17:00 17:00 17:00 PM Times 17:00 18:00 PM Peaks

- Are signs located to maximize perception and reaction while minimizing intrusion in clear zones?
- Does the signage provide adequate guidance to road users for given road conditions?
- Are pavement markings and signs consistent in effectively guiding road users?

Intersection Control

- Do all signs (stop signs, lane assignments, street names, etc.) provide visible, clear, non-conflicting messages?
- Is there clear, non-conflicting visibility of traffic control (signal heads, signs, and markings) from all approach lanes?
- Has the potential of misrepresentation of intersection control been considered (at closely spaced intersections or through control that is against expectation)?
- For signalized intersections, have the implications on safety been considered for the signal phasing?
- Is there a safe means by which all modes can travel through the intersection?

Lighting

- Is lighting (from headlights and/or streetlights) adequate for specific roadway conditions and/or use?
- If glare exists from sunlight or opposing headlights, are there countermeasures that can be implemented to minimize potentially detrimental effects?

Obstructions

- Are there obstructions to sight lines or roadway guidance (signs, markings, etc.) that can be removed, relocated, or minimized as part of this project?
- If obstructions or fixed objects exist but cannot be moved, can they be shielded (with guardrails, etc.) or delineated (with reflectors) to improve road user safety? If so, what can be done?

Pavement

- Could the condition of the pavement impact mobility and safety (potholes, edge drop-offs, skid resistance, etc.)?
- What improvements can be made to minimize safety impacts?

Access Points and Traffic Generators

• Is the access control sufficient for the road's function?

- Are site access points located to maximize safety while still providing adequate access?
- Have impacts of site developments been adequately accommodated for safe mobility of all road users?

Parking

- Is parking clearly delineated and in conformance with signs, markings, and regulations?
- Might parking obstruct mobility/safety of pedestrians and other roadway users?

Weather Conditions

Have accommodations been made for impacts from adverse weather condition (storage of snow, removal of ponding, adequate drainage, signage of low salt areas, maintenance program for snow removal, and catch basin clearing, etc.)?

Auxiliary Lanes

- Could taper locations and/or alignments contribute to safety challenges?
- Could lack of climbing lanes or passing zones cause driver frustration?
- Do acceleration/deceleration lane lengths necessitate additional signage and/or markings?

Animals

- Do animal migrations impact safety?
- Can measures be taken to reduce animal-vehicle conflicts?

CAPE COD COMMISSION

3225 MAIN STREET • P.O. BOX 226 • BARNSTABLE, MASSACHUSETTS 02630 (508) 362-3828 • Fax (508) 362-3136 • www.capecodcommission.org





EASTHAM FIRE DEPARTMENT

SAFER Grant Presentation

WHAT IS A S.A.F.E.R. GRANT?

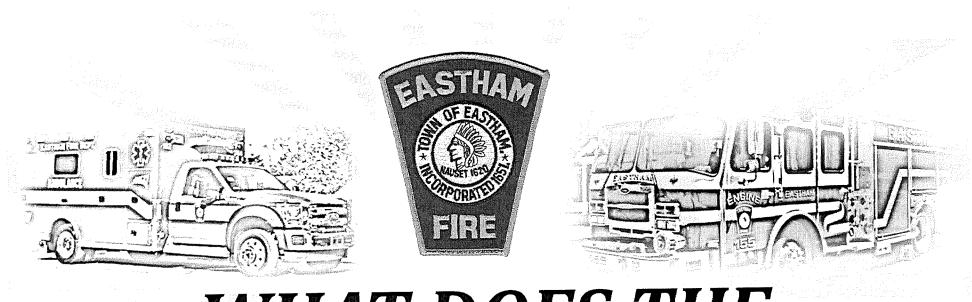
- <u>S</u>taffing for <u>A</u>dequate <u>F</u>ire and <u>E</u>mergency <u>R</u>esponse
- Based upon Nationally Accepted Standards
- National Fire Protection Agency (NFPA)
- Federal Emergency Management Administration (FEMA)
- Awarded to Fire Departments not meeting these standards
- Eastham Fire was deemed a "SIGNIFICANT NEED"

<u>NFPA 1500</u>

- Adopted in 1987 to decrease firefighter injuries and deaths
- Requires "Two in-Two out" policy for any building fire.
- Established a Safety Officer on scene.
- Developed a Rapid Intervention Crew (RIC) requirement

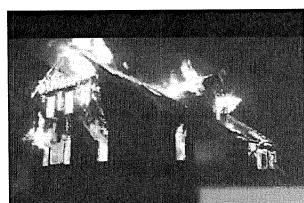
<u>NFPA 1710</u>

- Established staffing requirements for effective emergency response to fires and EMS incidents
- Minimum of 4 firefighters on the first due fire truck
- Response times less than 5 minutes from receipt of call
- 15 firefighters minimum at any building fire
- The Goal is to protect both the citizens and the firefighters



WHAT DOES THE FIRE DEPARTMENT DO?

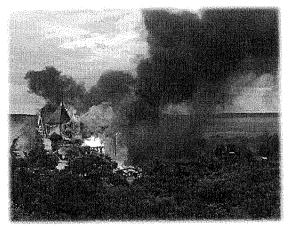
FIREFIGHTING











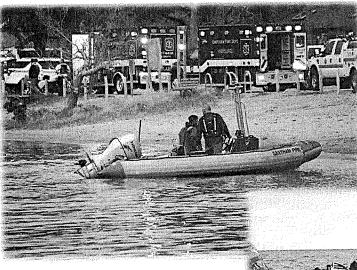
EMERGENCY MEDICAL SERVICES







WATER RESCUE/OTHER OPERATIONS

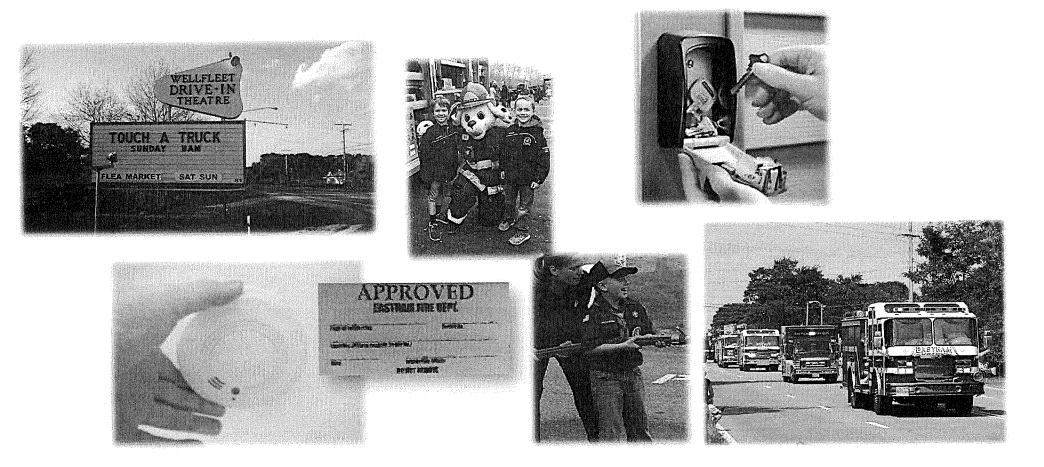




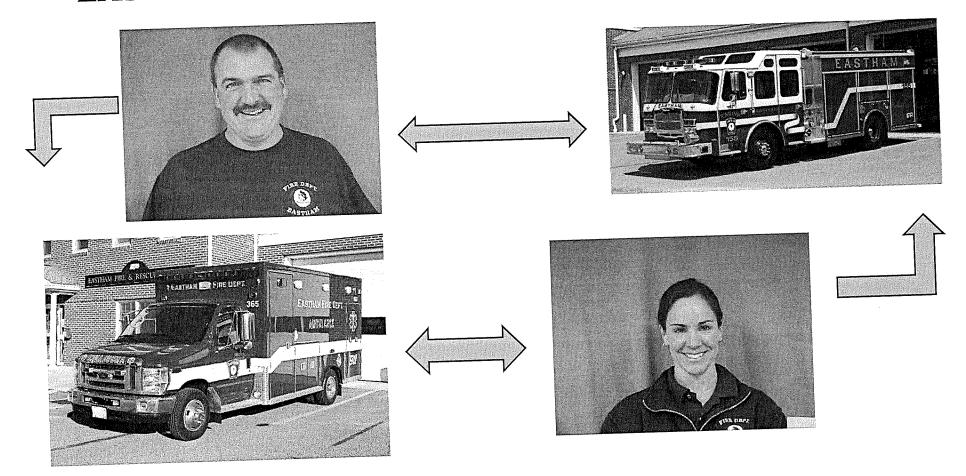




FIRE PREVENTION AND EDUCATION



EASTHAM FIREFIGHTERS ARE CROSS TRAINED



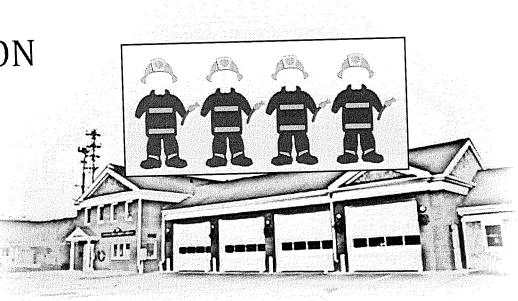
FIREFIGHTER = EMT



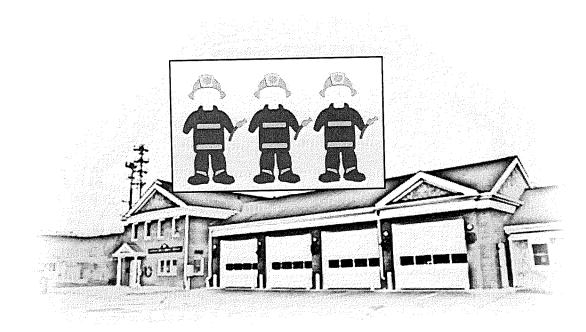


SUMMER/PEAK SEASON

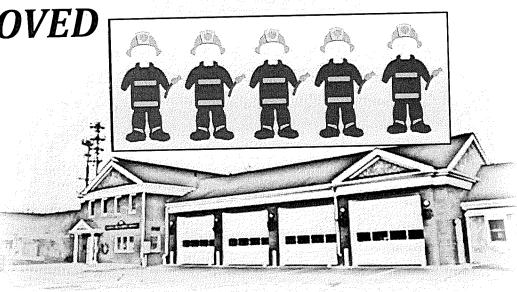
(Currently)



OFF-SEASON (*Currently*)

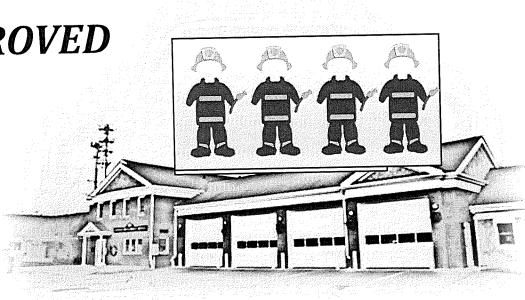


IF SAFER GRANT APPROVED SUMMER/PEAK SEASON

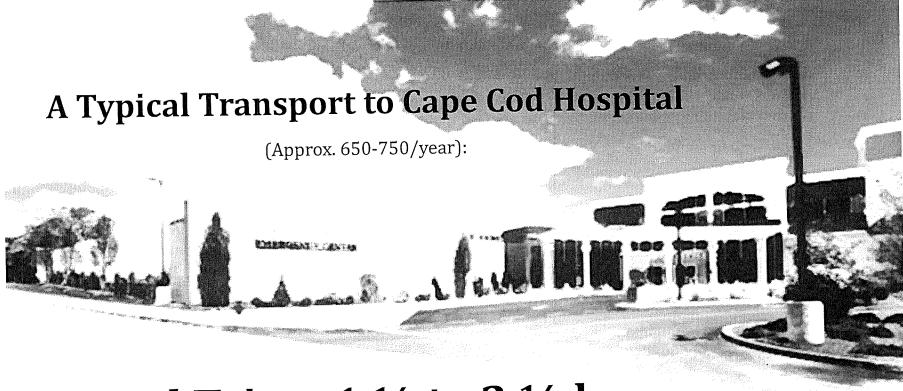




IF SAFER GRANT APPROVED OFF-SEASON



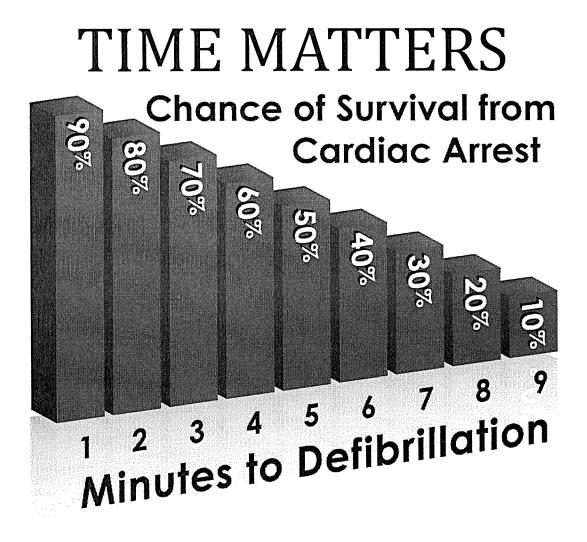




Round Trip = $1\frac{1}{2}$ to $2\frac{1}{2}$ hours



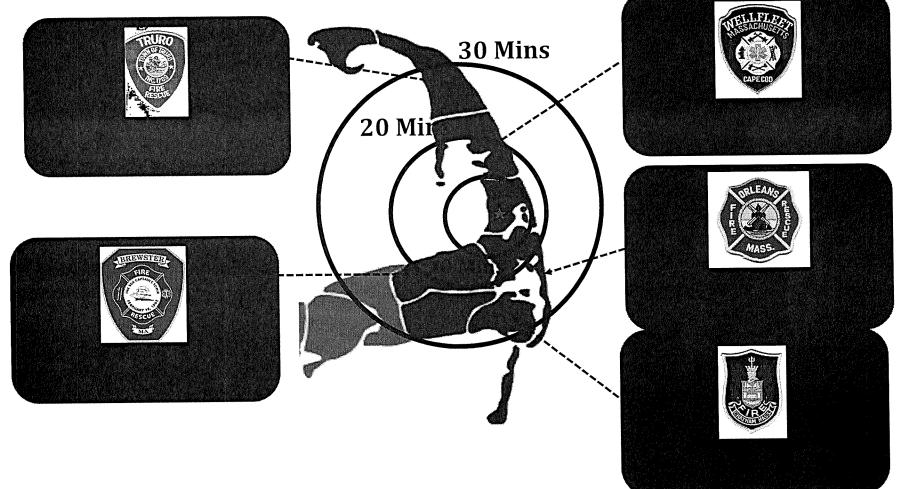
Was unstaffed for over <u>335 hours</u> in 2016



Fire Can reach unsurvivable "Flashover" in 8 minutes! Our Goal is to be on scene in less than 5 minutes.

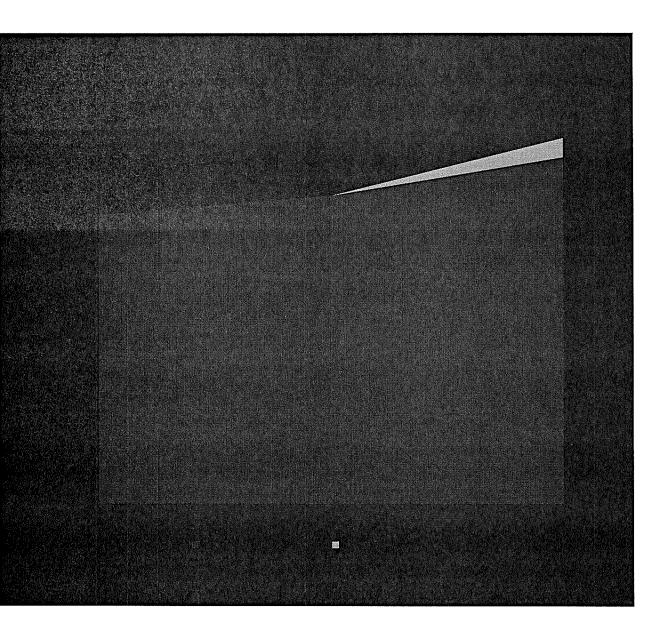


Can't Other Towns Help?



POTENTIAL COST SAVINGS?

- Revenue lost to Mutual Aid Ambulance Transports = \$30,000
- Line of Duty Injuries are significant but part of the job
- We can impact these numbers by recovering lost Ambulance revenue.
- Potential savings due to fewer on-the-job injuries



AMBULANCE <u>REVENUE</u>

- 683 Transports in 2016
- Average Revenue per Transport = \$800
- 2016 Revenue \$524,000

POTENTIAL INCREASED REVENUE

- Mutual Aid Transports = 74
- Potential revenue if we have manpower to handle 50% of the calls could be \$30,000 or more.

REDUCED ON DUTY INJURIES

- Inadequate crew size consistently results in 20-25% of On duty Injuries*
- Lifting with additional help reduces spinal loads and risk for cumulative traumatic injuries
- 2016 Eastham Fire had 937 Line of Duty Injury hours
- Additional savings could be seen with reduced injuries.

* "CONTRIBUTING FACTORS TO FIREFIGHTER LINE-OF-DUTY INJURY IN CAREER FIRE DEPARTMENTS IN THE UNITED STATES" Moore-Merrell, et al., 2008

<u>SUMMARY</u>

- Eastham Fire has been operating out of compliance for years
- 20% of our Emergency Calls come when we are already on one
- Our ability to perform all our duties *efficiently* and *safely* is being stretched annually
- Having a Municipal Water Supply enables us to perform more aggressive fire attack, saving property, but increasing workload
- Mutual Aid ambulances from other Towns are costing us revenue
- Eastham has a great opportunity to,
 - 1. Create a much safer environment for our firefighters
 - 2. Increase compliance with National Standards
 - 3. Further improve our ISO rating
 - 4. Become poised for future growth

Town of Eastham SAFER Grant Just the Numbers

Staffing for Adequate Fire & Emergency Response Total Costs Town of Eastham Costs Federal Match

| | Year One | Year Two | Year Three | Totals |
|----------------------|------------|------------|------------|--------------|
| SAFER GRANT | 2017-2018 | 2018-2019 | 2019-2020 | 2017-2020 |
| | | | | |
| Salary | 241,610.00 | 257,917.00 | 276,715.00 | 776,242.00 |
| Benefits | 77,315.00 | 82,534.00 | 88,549.00 | 248,398.00 |
| Total | 318,925.00 | 340,451.00 | 365,264.00 | 1,024,640.00 |
| Ineligible Start-up | | | | |
| Gear, radios, PPE | 27,000.00 | 2,200.00 | 2,200.00 | 31,400.00 |
| | 345,925.00 | 342,651.00 | 367,464.00 | 1,056,040.00 |
| | | | | |
| Federal Share Grant | 239,194.00 | 255,338.00 | 113,896.00 | 608,428.00 |
| Eastham Share | 106,731.00 | 87,313.00 | 253,568.00 | 447,612.00 |
| | | | | 1,056,040.00 |

SAFER Eastham Share We will raise and appropriate (spend) only what we need as we go

Actual Dollars

- FY18 \$66, 865 (1/2 year, January to June)
- FY19 \$66,865+\$43,656= \$110,521
- FY20 \$43,656+\$126,784= **\$170,440**
- FY21 126,784+183,732= \$310,516
- Second ½ FY21 and beyond=100% (\$368,000)

Percentage of Total Costs

- 25% of cost-Transfer from free cash at Special Town Meeting
- 25% of cost
- ½ year @ 25%, ½ year @65%
- ½ year @ 65%, ½ year @ 100%
- FY21 in January on @ 100%

We will raise and appropriate what we need as we go, reserving any excess levy capacity

Eastham Share Simplified Rest of FY 18= \$66,865(transfer) FY19 \$110,521 FY20 \$170,440 FY21 \$310,516 FY22 \$368,000

INFORMATION

ADMINISTRATION

SEP 1 8 2017

RECEIVED

3225 MAIN STREET • P.O. BOX 226 BARNSTABLE, MASSACHUSETTS 02630



HEARING NOTICE CAPE COD COMMISSION PROPOSED EASTHAM DISTRICT OF CRITICAL PLANNING CONCERN DESIGNATION (Commission File No. 17021) October 3, 2017

The Cape Cod Commission (Commission) will conduct a public hearing on Tuesday, October 3, 2017, 4:00 p.m., at Eastham Town Hall in the Earle Mountain Room, 2500 State Highway, Eastham, MA 02642 to consider a District of Critical Planning Concern (DCPC) designation in the Town of Eastham proposed pursuant to Sections 10 and 11 of the Cape Cod Commission Act. The Commission voted to accept the Town of Eastham Board of Selectmen's nomination for consideration for said DCPC at its meeting on August 31, 2017.

This notice is being published as required by Section 5 of the Cape Cod Commission Act.

The area of the proposed designation is known as the Eastham District of Critical Planning Concern and its boundaries encompass commercially zoned land in the Town of Eastham, including District C Industrial, District D Retail Sales and Service, and District E Residential/Limited Commercial, and all land within the North Eastham Overlay District bounded on the north by the Eastham/Wellfleet Town boundary, to the south by Old Orchard Road, to the east by the Cape Cod Rail Trail, and to the west by Herring Brook Road and Massasoit Road. The proposed district consists of approximately 280 acres of land area and approximately 2.9 acres of open water.

Anyone wishing to testify orally will be welcome to do so. Written comments may also be submitted at the hearing, or delivered or mailed to the Cape Cod Commission, P.O. Box 226, 3225 Main Street, Barnstable, MA 02630.

The proposed district boundary map and other relevant documents may be viewed at the Cape Cod Commission office at 3225 Main Street, Route 6A, Barnstable, MA 02630 between the hours of 8:30 a.m. and 4:30 p.m. For further information, please contact the Commission office at (508) 362-3828.

If you are deaf or hard of hearing or are a person with a disability who requires an accommodation, contact the Cape Cod Commission at (508) 362-3828; for Telecommunications Relay Services (TRS) dial 711.

Caso estas informações sejam necessárias em outro idioma, por favor, contate o Coordenador de Título VI da MPO pelo telefone 508-362-3828.



CAPE COD



David E. Pierce, Ph.D. Director

Commonwealth of Massachusetts

Division of Marine Fisheries 251 Causeway Street, Suite 400 Boston, Massachusetts 02114 (617)626-1520 fax (617)626-1509

September 16, 2017



Board of Selectmen Town of Eastham Town Hall Eastham, MA 02642

Ladies and Gentlemen:

In accordance with Chapter 130, Section 74A of the Massachusetts General Laws, the Division of Marine Fisheries has examined the quahogs transplanted from the Taunton River to Salt Pond (OC:6.21) and Town Cove (OC:4.25) under the provisions of contaminated relay permit #161272. As a result of this examination, the Division has determined that these areas, closed by Marine Fisheries on May 2, 2017, meets the requirements for the harvest of shellfish and has changed the status of the area to "OPEN TO SHELLFISHING" as of sunrise on September 16, 2017.

As a result of this examination, the Division has determined that these areas, closed by Marine Fisheries on May 1, 2016, now meet the requirements for harvest and has changed the status of the areas to "OPEN TO SHELLFISHING".

The below defined areas may be opened to the harvest of shellfish for direct human consumption subject to local rules and regulations under authority of Massachusetts General Laws Chapter 130, Section 52.

<u>CLASSIFICATION: APPROVED</u> SHELLFISH TRANSPLANT OPENING Status: Open To Shellfishing

OC:6.21 Salt Pond

"The waters and flats and all tributaries of Salt Pond from the "NO SHELLFISHING" sign at the visitor's center continuing easterly to the southeast corner of Salt Pond and extending seaward for 150'."



Charles D. Baker Governor Karyn E. Polito Lieutenant Governor Matthew A. Beaton Secretary Ronald Amidon Commissioner Mary-Lee King Deputy Commissioner



September 22, 2017

ADMINISTRATION SEP 2 8 2017 RECEIVED

Board of Selectmen Town of Eastham 2500 State Highway Eastham, MA 02642

Re: Miscellaneous Information

Dear Chairman and Members of the Board:

As part of our continuing effort to keep you informed, I wanted to share the following information which customers are receiving via bill message:

- On or around November 7, 2017, ESPN Classic will no longer be available.
- Effective November 20, 2017, the XF Triple Play Rewards Sports Entertainment service at \$8.95/mo for our Preferred XF, Preferred Latino, HD Preferred XF, Preferred Extra Latino, HD Preferred Extra XF, and HD Premier XF Triple Play Packages will no longer be available for new subscriptions. Customers who currently subscribe to Triple Play Rewards service, will continue to receive the service until they make a change to their account or receive further notice.

Should you have any questions please do not hesitate to contact me at 508.732.1536.

Very truly yours,

Míchael Galla

Michael Galla, Sr. Manager Government Affairs THELOTTERY () Massachusetts State Lottery Commission

DEBORAH B. GOLDBERG Treasurer and Receiver General MICHAEL R. SWEENEY Executive Director

ADMINISTRATION SEP 2 9 2017 RECEIVED

September 26, 2017

Eastham Board of Selectmen 2500 State Highway Eastham, MA 02642

Dear Sir/Madam:

ĩ

The Massachusetts State Lottery is offering a KENO monitor to existing **7-Eleven** stores in your city/town, to display the game at their location. In accordance with M.G.L. c 10, section 27A, as amended, you are hereby notified of the Lottery's intent to install a monitor at the following location/s in your community:

2360 State Highway.

If you object to these agent(s) receiving a monitor, you must do so, in writing, within twenty-one (21) days of receipt of this letter. Please address your written objection to Carol-Ann Fraser, General Counsel, Legal Department, Massachusetts State Lottery Commission, 60 Columbian Street, Braintree, MA 02184. Should you have any questions regarding this program or any other issues relative to the Lottery, please call me at 781-849-5555. I look forward to working with you as the Lottery continues its' efforts to support the 351 cities and towns of the Commonwealth.

Sincerely,

Nichoal R. Sweeney

Michael R. Sweeney Executive Director



Cape & Vineyard Electric Cooperative, Inc. ANNUAL REPORT FISCAL YEAR 2017 July 1, 2016 - June 30, 2017

Prepared September 2017

Cape & Vineyard Electric Cooperative, Inc. 23H2 White's Path, Suite 2 South Yarmouth, MA 02675 774-722-1812 www.cvecinc.org



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I. EXECUTIVE SUMMARY

Since its organization in 2007, the Cape & Vineyard Electric Cooperative, Inc. ("CVEC" or the "Cooperative") has worked to develop renewable energy projects in support of CVEC's goals and objectives of developing and/or owning renewable electric generation facilities and procuring and/or selling long term electric supply or other energy-related goods or services at competitive prices to help stabilize electric rates for CVEC member communities. This Annual Report summarizes CVEC's activities and operations in fiscal year ("FY") 2017.

II. INTRODUCTION

A. Organizational History

CVEC was formed out of a strategic planning process commissioned and undertaken by the Cape Light Compact ("CLC"). CVEC was organized in 2007 with three members: CLC, Barnstable County, and the Town of Barnstable. Currently, CVEC has 20 members consisting of 17 towns, Barnstable and Dukes County, and the CLC. CVEC was formed under Massachusetts General Laws, c. 164, §136. This statute provides for the establishment of energy cooperatives. Section 136 cooperatives can, among other things: (1) purchase and own generation, transmission and other projects and property; (2) enter into contracts and incur liabilities; (3) borrow money, issue notes and bonds; (4) enter into private/public collaboration (contractual); (5) purchase, sell and distribute energy; and (6) sell electricity to any consumer within CVEC member communities.

CVEC's goals and objectives include developing and/or owning renewable electric generation facilities and procuring and/or selling long term electric supply or other energy-related goods or services including renewable energy certificate contracts at competitive prices to member communities.

B. Current CVEC Members

Since its inception CVEC has grown from its three founding members (County of Barnstable, Cape Light Compact, and Town of Barnstable) to its 20 members as of June 30, 2017. The subsequent CVEC members include Dukes County, and the Towns of Bourne, Brewster, Chatham, Chilmark, Dennis, Eastham, Edgartown, Falmouth, Harwich, Oak Bluffs, Orleans, Provincetown, Sandwich, Tisbury, West Tisbury, and Yarmouth.



III. OFFICERS, BOARD OF DIRECTORS AND STAFF

Listed below are the Directors and Staff as of the end of the FY17, June 30, 2017. Directors who joined CVEC during the course of FY17 are so noted with an asterisk (*). A special thank you goes to those officers, directors and staff who left CVEC during the course of the fiscal year; Anna Meade, Provincetown, Barbara Conroy, Edgartown, Tim Carroll, Chilmark, Jon Nelson, Bourne, and William Straw, Tisbury.

A. Officers (As of June 30, 2017)

Leo Cakounes, Barnstable County, President Jennifer Rand, West Tisbury, Vice-President Joseph Bayne, Eastham, Treasurer Charles Hanson, Brewster, Clerk

B. Board of Directors (As of June 30, 2017)

Austin Brandt, Cape Light Compact Rob Hannemann*, Chilmark Lee-Gray Boze*, Falmouth Larry Cole, Harwich Ron Collins, Orleans Steve Gavin, Yarmouth Greg Rounseville, Dennis John Scott, Chatham Kirk Metell*, Tisbury Richard Toole, Oak Bluffs John Alley*, Duke's County Lydia Hamnquist*, Provincetown Vacant, Sandwich Vacant, Edgartown

C. Executive Committee (As of June 30, 2017)

Charles McLaughlin, Barnstable Leo Cakounes, Barnstable County Chuck Hanson, Brewster Austin Brandt, Cape Light Compact Jennifer Rand, West Tisbury

D. Staff (As of June 30, 2017)

Liz Argo, Manager, Programs and Administration





Figure 1. CVEC Board September 2016. Left to right, John Scott, Steve Gavin, Lee-Gray Boze, Ron Collins, Manager Liz Argo, Chuck Hanson, Charles McLaughlin, Jr., Greg Rounseville, Jen Rand, Austin Brandt, Assistant Administrator Karen Loura, Leo Cakounes, and Joe Bayne.

IV. FISCAL YEAR 2017 ACCOMPLISHMENTS

A. CVEC's Initial Initiative, Round 1 and Round 2

CVEC continues to manage its impressive portfolio of 25 PV projects (CVEC's Round 1 and Round 2) which was built and interconnected between 2013 and 2014. The 25 projects have a capacity of 27.8 megawatts (MW), which, in addition to CVEC's initial portfolio of 750 kilowatts (kW), creates a total of 28.5MW installed under CVEC management. FY17 was the second full year of commercial operations for all 25 Round 1 & 2 projects. The total FY17 net metered energy value for the initial round and CVEC's Round 1 and 2 was \$2,706,854. Those savings and earnings from CVEC's 28.5MW portfolio benefitted 20 governmental entities located on Cape Cod and Martha's Vineyard, including seventeen municipalities, one water district and two school districts.

In addition to providing focused benefits for Cape Cod and Martha's Vineyard through local photovoltaic siting, CVEC further supported its communities in a cooperative fashion through CVEC's unique revenue sharing mechanism, a system developed by CVEC to allow sharing of its projects' net metered energy. For example, the CVEC Harwich Capped Landfill PV project was built to its fullest capacity with the knowledge that total PV production would exceed Harwich's total kilowatt hour ("kWh") usage. Through the Cooperative, the Harwich Capped Landfill PV project's excess energy is allocated to off-taker participants like Barnstable County and the Town of Provincetown. In this way, Cooperative participants unable to host large renewable energy projects on



their own municipal lands can lower their electric costs through the purchase of excess net metering credits from their neighbors.

At the start of FY17, the list of towns or other governmental entities participating as offtakers of CVEC's net metered energy were Barnstable County, Dukes County, Brewster, Chatham, Chilmark, Oak Bluffs, Monomoy Regional School District, Provincetown and Yarmouth.



Figure 2. Gathering at the CVEC Harwich Capped Landfill project to celebrate Round 1 & 2 projects, 10.12.14

B. CVEC's Purchase of Net Metered Power

On behalf of CVEC's pool of off-takers, in early FY17, CVEC further leveraged its position as an energy cooperative by contracting to purchase net metering credits from two off-Cape non-CVEC projects. The purchase included 3MW of net metered energy from an 8MW wind project known as Future Generation Wind ("FGW") located in Plymouth County. Participation in the wind project brings the Cooperative closer to its goal of managing a diversified portfolio of distributed generation projects on behalf of its member towns.



Cape & Vineyard Electric Cooperative, Inc.

Photo courtesy of Future Generation Wind Figure 3. Photo of FGW wind turbines in Plymouth, MA.



In addition, in the spring of 2016, CVEC negotiated a fixed price PPA contract with a second off-Cape non-CVEC project. CVEC's contract with Nexamp, LLC will allow CVEC to distribute over 870,000 kilowatt hours to CVEC's pool of offtakers from the 3-megawatt solar farm in Dartmouth, Massachusetts known as Dartmouth Farms Solar. While Dartmouth Farms Solar was expected to start producing net metering credits in January 2017, Eversource delays in interconnecting the project have prevented the solar farm's start-up. Eversource is reported to be actively working on the interconnection as of this writing, September 2017.



Photo courtesy of Nexamp LLC Figure 4. Photo of anchors being installed in preparation for solar racking installation at Dartmouth Farms Solar.

In the fall of 2016, two additional non-CVEC governmental offtakers, the Centerville, Osterville, Marson Mills Fire District and the Cotuit Fire District Water Department, asked to participate in CVEC's net metering purchase offerings. On their behalf, CVEC secured a third competitive net metering credit sale from a company out of New York, Syncarpha LLC, in mid-winter 2016. The Syncarpha project, called Marie's Way, was quickly operational and CVEC now sends net metering credits from Marie's Way to the two fire districts.

C. Round 3

Following the success of CVEC's Initial PV Initiative and CVEC's PV Initiatives Round 1 and Round 2, requests for a CVEC PV Initiative Round 3 have been coming in from members. To that end, CVEC has collected Letters of Intent from Provincetown, Oak Bluffs, Chatham and Eastham towards 5 individual roof-mounted Behind-the-Meter PV installations which will constitute a CVEC PV Initiative Round 3. Contract modification



is underway in preparation for the release of a Request for Proposals for Round 3 in the fall of 2017.

D. Letters of Intent for more NMC sales

In addition to further rounds of PV installation under CVEC's management, requests for additional Net Metering Credit (NMC) purchases through CVEC have been received as well. CVEC is currently in negotiations to secure a Net Metering Credit sale totaling about 2MW from either an on-Cape or off-Cape developer to meet requests.

E. Battery Storage

To further meet the CVEC mission of bringing forward economically viable renewable electric transmission and generation solutions, CVEC continues to move forward on its battery back-up system to be located at the Dennis Yarmouth ("DY") High School Regional Emergency Shelter. The energy storage system will be installed utilizing a \$1.4 million grant awarded to CVEC by the Massachusetts Department of Energy Resources under the Community Clean Energy Resilience Initiative ("CCERI"). In spring 2017, CVEC hired an electric engineer, Scott Reynolds of Reynolds Design and Engineering to act as CVEC's Owner's Agent during the process.

At the end of FY17, CVEC, in partnership with the Clean Energy States Alliance ("CESA") and Sandia National Laboratories, had completed its draft Request for Proposals, with which it will solicit potential developers to, first, provide an economic analysis of their proposed battery design, and second, to bid on the turn-key system installation. The RFP is now under review by the Massachusetts Department of Energy Resources.

F. CVEC Consultant Services

The Town of Dennis, a CVEC member, continues to use CVEC's net metering expertise and services in FY17 to manage the distribution of the Town's net metering credits from their Dennis capped landfill PV system, a PV system not installed under CVEC management.

In the fall of 2016, a second CVEC member, the Town of Provincetown, contracted for CVEC's similar services to assess benefits from their Transfer Station PV system, a system installed by CVEC to operate both Behind-the-Meter and as a net metering credit exporter.



The Cooperative invites all members to discuss with CVEC staff the utilization of CVEC's management services.

G. CVEC Operational Administrative Adder

To support CVEC's operations, including CVEC's development of new opportunities and its monthly transaction distribution of over 32 MW amongst its 21 participants, CVEC routinely imposes a CVEC Operational Administrative Adder. The Adder is included in costs collected to pay project developers' Power Purchase Agreement (PPA) costs. The Adder ranges from \$0.015 to \$0.005 per kilowatt hour.

In one case, however, no Adder existed. Eight Round 1 PV Initiative projects went operational with no Adder imposed. In late 2014 CVEC recognized it couldn't maintain financial and operational services for all participants at the current level without an Adder also collected on the Round 1 projects. After two years of negotiations, in early 2017 CVEC reached agreement on an Adder of \$0.005 (half a penny) per kilowatt hour of production with all fifteen participants in the Round 1 projects. The income from the Round 1 Adder of just over \$100,000 eliminates a previous gap between CVEC income and expenses.

H. Eversource Rate Case Intervention

In January 2017, Eversource, the local distribution company, submitted a request for a "Rate Case" hearing to the Department of Utilities (DPU). CVEC has closely followed the Eversource "Rate Case" proceedings.

On June 1, 2017 Eversource provided a revised proposed distribution rate schedule and, after determining the effect of the revisions on current net metering credit savings for CVEC's members and participants, CVEC's Board voted unanimously to retain legal representation and file for intervenor status in the DPU hearing.

CVEC was granted limited intervenor status by the DPU on July 17, 2017 and has prepared a case that will demonstrate the effects on its members of the renewable energy incentive devaluation in concert with the proposed rate increases.

As part of its efforts, CVEC conducted three public outreach meetings in July, one on Martha's Vineyard, one in Eastham and one in Sandwich, to provide town managers, selectboard members, energy committees and the general public a better understanding of the consequences of the proposed Eversource changes and CVEC's plan to fight the changes.



I. Business Activities

In business news, CVEC renewed its contract for another year of energy consultant services provided by Peregrine Energy Group of Boston, Massachusetts and renewed its contract for accounting services provided by Glivinski and Associates of South Yarmouth, Massachusetts.

V. DATA REVIEW: PREVIOUS YEARS & FY17 REVIEW

A. Energy Benefits

Cape & Vineyard Electric Cooperative, Inc.

As the Round 1 and Round 2 systems reached commercial operation in FY 2015, the annual generation from CVEC's initial round of PV installations (the CVEC-7) and CVEC's new Round 1 & 2 Initiatives was projected to total 33,409,228 kWh. Despite an annual .05% degradation factor common to PV installations, annual total production continues to surpass the original year-one production estimate. FY17 annual kWh production from these projects totaled 35,018,156, down by 585,895 kWh from the FY16 kWh total of 35,604,051. For further details please see Attachments A – D and for individual CVEC project details, please see Attachments E at the rear of the FY17 Annual Report.

Participating entities, including both project hosts and off-taker participants, include fourteen CVEC member municipalities, as well as Barnstable County, Dukes County, the Barnstable Fire District, the Monomoy School District, the Dennis Yarmouth Regional School District ("DYRSD"), Centerville, Osterville, Marston Mills Fire District (COMM) and the Cotuit Fire District Water Department. In all, CVEC's projects provide savings to a total of 21 governmental entities either by direct electrical cost offsets or by cooperative sharing of CVEC net metering credits.

At the end of FY17, total savings from all 28 CVEC-installed projects totaled \$7,237,473 with FY17 savings alone totaling \$2,601,011. With the addition of purchased Net Metering Credits, the total savings equaled \$7,343,316 with FY17 savings alone totaling \$2,706,854.



B. Environmental Benefits

CVEC's projects, both CVEC-installed and through power purchases, deliver 33.6 MW of renewable power. This is the equivalent of enough power to provide electricity to 10,086 homes annually. The renewable energy from CVEC's PV Initiatives produce not only financial benefits but educational and environmental benefits to the 21 participating municipal and governmental hosts and off-takers. Environmental benefits from the 33.6 MW of solar energy are estimated to offset over 59 million pounds of carbon equivalent annually. A carbon offset of this size is equal to taking 5,711 cars off the road each year. It is also equal to powering 10,086 homes for a year or eliminating the need for 904 tankers of gasoline!



Figure 5. Equivalency calculations from EPA Energy Resources Calculator

* http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results



Cape & Vineyard Electric Cooperative, Inc.

VI. SUMMARY

In FY17 CVEC delivered over \$2,706,854 in savings to CVEC members and participants. With the addition of CVEC's Future Generation Wind and Marie's Way net metering credits, along with CVEC's work towards a battery back-up system for the DY High School Regional Emergency Shelter, CVEC progressed steadily in FY17 towards its objective of developing renewable energy and providing significant benefits and grid stabilization to the ratepayers in CVEC's communities.



Photo courtesy of Sarah Coleman and Amar Rambhadjan

Cape & Vineyard Electric Cooperative, Inc.

Figure 6. Group Photo at Earth Day 2015 Celebration for Completion of CVEC Round 1 & 2 Initiatives held at the CVEC Barnstable Municipal Airport PV installation.



| CV | EC | Proj | ects | s in F | Revie | ew |
|---|---|-------------------------------------|------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| Initiative Project Group | Name Plate Rating for Initiative | kWh Production in FY17 | kWh Production in FY16 | Net Savings in FY17** | Net Savings in FY16 | CO2 Offsets in Pounds * |
| Round 1 (8 projects) | 16,205 kW (16 MW) | 19,932,424 | 20,387,344 | \$1,474,126 | \$1,689,314 | <mark>30,606,695</mark> |
| Round 2 (6 projects) | 9,453 kW (9.5 MW) | 11,810,028 | 11,815,948 | \$868,686 | \$1,022,176 | <mark>18,297,936</mark> |
| Round 2 Small BTM (11 projects) | 2,144 kW (2.14 MW) | 2,346,358 | 2,488,028 | \$215,915 | \$243,807 | <mark>3,635,344</mark> |
| ConEdison Solutions (7 projects) | 760.67 kW (.76 MW) | 929,346 | 912,731 | \$42,284 | \$41,529 | <mark>1,439,888</mark> |
| Future Generation Wind (1 project) | 3MW | 2,309,836 | ан сайна | \$57,006 | - | <mark>3,578,758</mark> |
| Syncarpha Marie's Way (1 project) | 2,021 kW (2.02 MW) | 1,323,505 | - | \$48,837 | - | <mark>2,050,580</mark> |
| FY17 TOTALS (34 Projects) | | 38,651,493 kWh in FY17 | 35,604,051 kWh in FY16 | \$2,706,854 Savings in FY17 | \$2,971,887 Savings in FY16 | <mark>59,609,194</mark> Pounds |
| TOTALS to DATE | 33,584 kW (33.6 MW) | 97,363,049 To Date | | \$7,343,316 To Date | | <mark>150,574,288</mark> Pounds |

Table 1. CVEC Project Benefits (using a NMC value of ~ \$0.15 or cost of electricity of \$0.18) * Equivalency calculation from EPA Energy Resources Calculator: <u>http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results</u> **(using cost of electricity for BTM or annual NMC for Virtual Metering)





Photo courtesy of Sandy Cashen

Figure 7. Station Avenue School Children pose with CVEC PV installation at DY High School's Ground Mount.



VII. FISCAL YEAR 2017 FINANCIALS

A. CVEC Unaudited Preliminary Balance Sheet

Cape & Vineyard Electric Cooperative, Inc. Balance Sheet As of June 30, 2017

| | Jun 30, 17 |
|------------------------------------|----------------------|
| ASSETS | |
| Current Assets | |
| Checking/Savings | |
| 10005 · TD Money Market | 25.00 |
| 10001 · Century Control 7499 | 260,919.43 |
| 10002 · Century Checking 1992 | 143,432.72 |
| 10003 · TD Bank Disbursements 0974 | 259,068.60 |
| 10004 · CC5 Checking 6865 | 100.03 |
| Total Checking/Savings | 663,545.78 |
| Accounts Receivable | 504 007 40 |
| 11000 · Accounts Receivable | 591,997.42 |
| Total Accounts Receivable | 591,997.42 |
| Other Current Assets | 4 500 00 |
| 12800 · Rent Deposit | 1,500.00 7,032.98 |
| 12700 · Prepaid Insurance | 650.02 |
| 12710 · Prepaid Expenses | |
| Total Other Current Assets | 9,183.00 |
| Total Current Assets | 1,264,726.20 |
| TOTAL ASSETS | 1,264,726.20 |
| LIABILITIES & EQUITY | |
| Liabilities | |
| Current Liabilities | |
| Accounts Payable | |
| 20000 · Accounts Payable | 968,231.43 |
| Total Accounts Payable | 968,231.43 |
| Credit Cards | 553.52 |
| 20100 · Century Bank Credit Card | |
| Total Credit Cards | 553.52 |
| Total Current Liabilities | 968,784.95 |
| Total Liabilities | 968,784.95 |
| Equity | |
| 32000 · Unrestricted Net Assets | 321,989.87 |
| Net Income | (26,048.62) |
| | 295,941.25 |
| Total Equity | |



B. CVEC Unaudited Preliminary Income Statement for FY 2017

Cape & Vineyard Electric Cooperative, Inc. Profit & Loss July 2016 through June 2017

| | Jul '16 - Jun 17 |
|--|------------------|
| Ordinary Income/Expense | |
| Income | |
| 40000 · Project Income | 3,312,677.15 |
| 42150 · RECs - CLC reimb CVEC | 34,785.00 |
| 44300 · Services Income | 14,040.00 |
| 44450 · On Peak Hours Resources Income | 6,933.71 |
| 45000 · Operational Adders | 177,200.93 |
| Total Income | 3,545,636.79 |
| s and a second sec | 3,545,636,79 |
| Gross Profit | 9,9,19,25 |
| Expense 63790 · CCERI Grant Expense Acct | 950.52 |
| | 3,347,462.15 |
| 60000 · Project Expense | 90,786.51 |
| 62790 · Payroll Expenses | 10,000.78 |
| 62710 · Legal Fees | 25,400.00 |
| 62700 · Audit Fees | |
| 62720 · Consultant Costs | 57,336.50 |
| 62730 · Bank Fees | 2,352.30 |
| 62735 · Conference Expense | 125.00 |
| 62744 · Filing Fees | 175.00 |
| 62750 · Insurance Expense | 14,082.54 |
| 62751 · Worker's Comp Insurance | 202.08 |
| 62751 - Worker's Comp institution | 2,992.49 |
| 62760 · Travel Expense | 456.00 |
| 62755 · Taxes | 1.249.98 |
| 62770 · Dues | 2,666.38 |
| 62780 · Admin Assit/Office Staffing | 0.00 |
| 62800 · Miscellaneous | 9,092.04 |
| 63000 · Misc. Office Operating Expenses | |
| 63600 · Office Rental | 6,500.00 |
| 64000 · Professional Development | 115.00 |
| Total Expense | 3,571,945.27 |
| Net Ordinary Income | (26,308.48) |
| Other Income/Expense | |
| Other Income | 350.86 |
| 44500 · Interest Income | 259.86 |
| Total Other Income | 259.86 |
| Net Other Income | 259.86 |
| Net Income | (26,048.62) |
| Net meanie | |

Attachment A

CVEC Initial Initiative (CVEC-7) with ConEdison Solutions FY17

| SITE | Name plate Kilowatts | Output in Kilowatt hours FY17 | Commercial Operation Date | Estimated Behind the Meter Savings since 2010 |
|--|----------------------------|-------------------------------------|------------------------------|---|
| Barnstable High School | 131 | 182,325 | August 23, 2010 | \$ 39,662 |
| Eddy Elementary School (Brewster) | 100.98 | 180,350 | July 16, 2010 | \$ 45,315 |
| Stony Brook Elementary School (Brewster) | 100.98 | 121,181 | July 16, 2010 | \$ 29,729 |
| Eastham Elementary School | 100.8 | 101,935 | February 27, 2010 | \$ 27,888 |
| Eastham DPW | 80.4 | 117,314 | February 25, 2010 | \$ 28,028 |
| Bourne Middle School | 142.56 | 92,154 | April 30, 2010 | \$ 23,510 |
| Harwich Elementary School | 103.95 | 134,082 | July 22, 2010 | \$ 31,632 |
| TOTAL | 760.67 | 929,342 | | \$ 225,763 |

Table 2. Table Describing CVEC Solar PV Initial Initiative

Cape & Vineyard Electric Cooperative, Inc.

Attachment B

CVEC ROUND 1 PROJECTS

| SITE | Name plate Kilowatts | Estimated Output in Kilowatt hours (EAO)* | Commercial Operation Date | Savings FY17 (NMC \$\$ less Costs) | Savings to Date |
|----------------------------|----------------------------|--|------------------------------|--|--------------------|
| Barnstable Landfill | 4,171 | 5,044,766 | September 15, 2014 | \$382,605 | \$841,565 |
| Brewster Landfill | 1,231 | 1,496,387 | September 15, 2014 | \$97,612 | \$204,315 |
| Chatham Landfill | 1,837 | 2,301,425 | September 29, 2014 | \$183,613 | \$368,736 |
| Eastham Landfill | 587 | 714,574 | April 23, 2014 | \$19,308 | \$298,028 |
| Edgartown's Nunnepog | 1,442 | 1,801,865 | June 6, 2014 | \$77,176 | \$377,043 |
| Edgartown's Katama Farm | 1,271 | 1,548,775 | June 6, 2014 | \$73,385 | \$459,051 |
| Harwich Landfill | 4,492 | 5,429,725 | August 1, 2014 | \$451,160 | \$925,960 |
| Tisbury Landfill | 1,174 | 1,426,192 | July 29, 2014 | \$189,267 | \$194,712 |
| TOTAL | 16,205 | 19,763,709 | - Dound 1 | \$4,766,493 | \$3,669,411 |

Table 3. Table Describing CVEC Solar PV Initiative Round 1

Cape & Vineyard Electric Cooperative, Inc.

* Estimated Annual Outputs ("EAOs") as per recent project owner calculations (not per contractual obligations).



Attachment C

CVEC ROUND 2 PROJECTS DETAILS

| *(BTM stands for Benind the Meter) | | | | | |
|--|---------------------------|--|---------------------------------|---|---|
| SITE | Name pate Kilowatts | Estimated Output in Kilowatt hours (EAO)** | Commercial Operation Date | Savings FY17 (NMC \$\$ less Costs) | Savings to Date (Estimates for BTM projects) |
| Barnstable Airport | 5,735 | 6,830,790 | April 3, 2015 | \$541,007 | \$842,732 |
| Barnstable Fire District | 934 | 1,059,241 | April 21, 2015 | \$79,599 | \$128,413 |
| Barnstable Senior Center (BTM)* | 136 | 162,217 | December 2, 2014 | \$19,448 | \$31624 |
| Barnstable High School (BTM)* | 463 | 531,470 | October 8, 2014 | \$39,901 | \$64,695 |
| West Villages Elementary School, Barnstable (BTM)* | 39 | 45,617 | October 8, 2014 | \$3,695 | \$6626 |
| Bourne Community Center (BTM)* | 37 | 38,213 | August 30, 2014 | \$4,203 | \$7928 |
| Chatham Police Station (BTM)* | 22 | 27,197 | August 30, 2014 | \$2,726 | \$4594 |
| Chatham Town Hall Annex (BTM)* | 22 | 27,063 | August 30, 2014 | \$2,173 | \$5282 |
| DY High School Roof, Yarmouth | 590 | 667,518 | March 6, 2015 | \$45,716 | \$87,395 |
| DY High School Ground, Yarmouth | 690 | 815,126 | April 14, 2015 | \$53,760 | \$87,613 |
| Ezra Baker School; Dennis (BTM)* | 71 | 69,423 | August 30, 2014 | \$45,716 | \$11,841 |
| M.E. Small School Ground, Yarmouth | 832 | 979,487 | February 27, 2015 | \$81,318 | \$132,720 |
| Mattacheese School Roof, Yarmouth (BTM)* | 209 | 227,223 | December 16, 2014 | \$21,516 | \$26,880 |
| Wixon School Ground, Dennis (BTM)* | 403 | 499,285 | December 8, 2014 | \$44,760 | \$83,796 |
| Orleans Capped Landfill | 554 | 666,890 | May 15, 2015 | \$50,524 | \$63,993 |
| Provincetown Transfer Station (BTM)* | 152 | 197,559 | December 15, 2014 | \$24,737 | \$38,379 |
| West Tisbury Capped Landfill | 708 | 801,200 | January 5, 2015 | \$62,479 | \$117,862 |
| TOTAL | 11,597 | 13,645,519 | | \$1,123,278 | \$1,742,374 |

*(BTM stands for Behind the Meter)

Table 4. Table Describing CVEC Solar PV Initiative Round 2 (*BTM stands for Behind the Meter)

** Estimated Annual Outputs ("EAOs") as per recent project owner calculations, (not per contractual obligations).



Attachment D

TOTALS FOR ALL CVEC ROUND 1 and 2 PROJECTS OVER 200KW

July 2016 to June 2017 (FY17)

CVEC PV Projects: FY 2017

Total Benefits and Costs

| kWh Total | NMC Total | Developer Cost Total | CVEC Admin Cost Total | Net Benefit |
|------------|-------------|-------------------------|--------------------------|-------------|
| 31 742 444 | \$4,790,881 | (\$2,290,296) | (\$133,388) | \$2,367,197 |

Net Benefits by Month



Developer CVEC Admin Round System Name kWh Total NMC Total Net Benefit Cost Total Cost Share \$225,550 1 Barnstable Landfill 1 3,034,080 \$446,834 (\$221,184) 50 \$0 \$156,955 Barnstable Landfill 2 2,115,440 \$311,243 (\$154,288) \$97,612 Brewster Landfill 1,543,380 \$228,799 (\$131,187) \$0 5183,613 Chatham Landfill 2,381,400 \$354,360 (\$170,746) \$0 \$85,426 (\$41,733) \$0 \$43,694 Eastham Landfill 590,280 \$451,160 \$864,108 (\$412,947) 50 5,815,160 Harwich Landfill \$73,385 Katama Farm 1,318,680 \$192,594 (\$119,209) 50 1,608,480 \$235,772 (\$158,596) \$0 \$77,176 Nunnepog Well \$189,267 Tisbury Landfill 1,523,520 \$328,364 (\$139,097) \$0 \$541,007 7,154,160 \$1,059,326 (\$446,777) (\$71,542) 2 Airport - Section 2 \$79,598 Barnstable Fire District 1,120,440 \$164,729 (\$68,324) (\$16,807) 830,540 5121,989 (\$55,771) (\$12,458) \$53,760 **DYHS Ground Mount** \$162,777 (\$64,850) (\$16,600) \$91,318 Marguerite Small School 1,106,640 (\$7,351) \$50,524 Orleans Landfill 736.104 \$107,653 (\$49,768) West Tisbury Landfill 852,140 \$126,906 (\$55,906) (\$8,621) \$62,479 31,742,444 \$4,790,881 (\$2,290,296) (\$133,388) \$2,367,197 Grand Total

Benefits and Costs by System



