Old Colony Beach Club Association

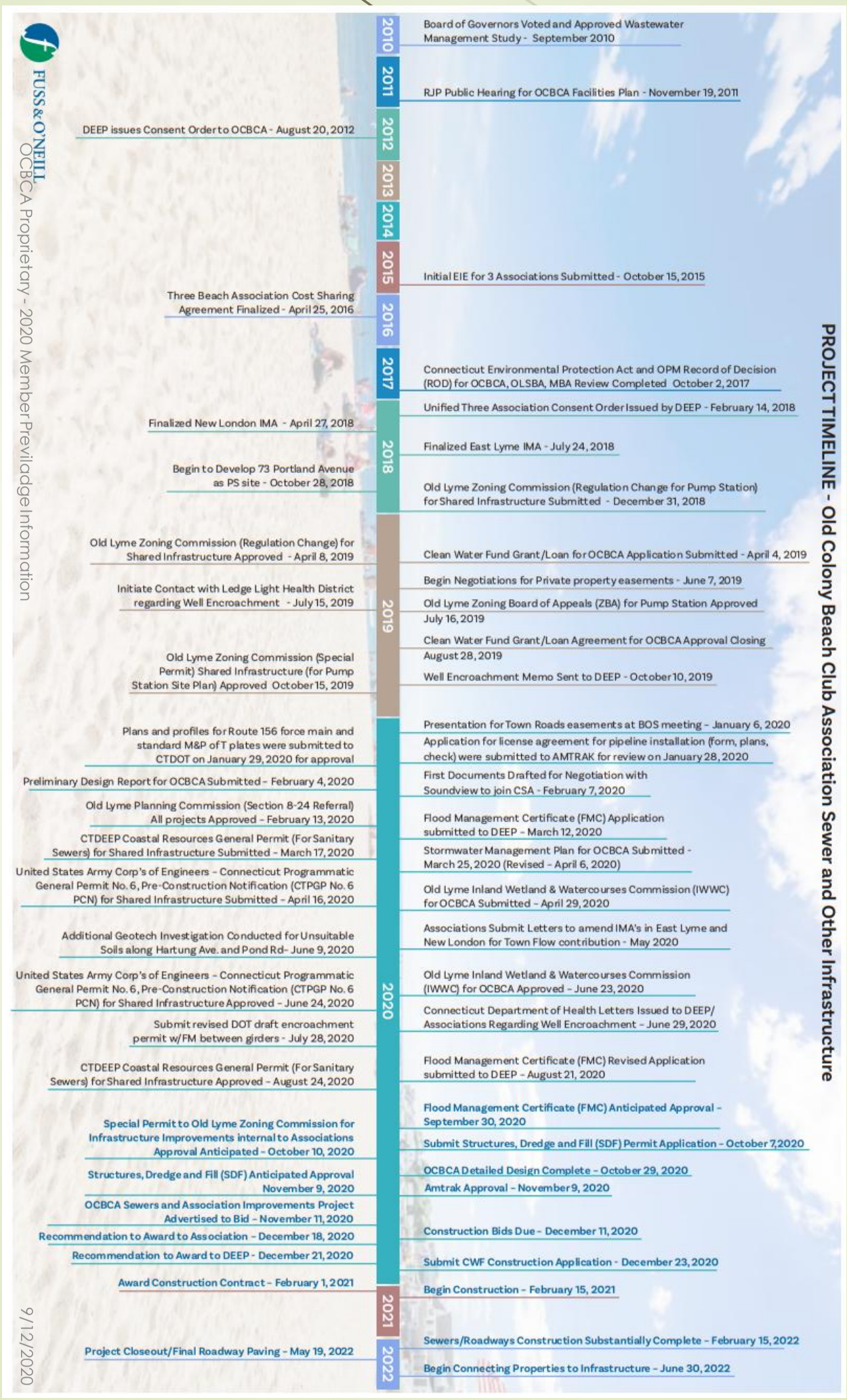
Beach Sewer Project Update

Water Pollution Control Authority

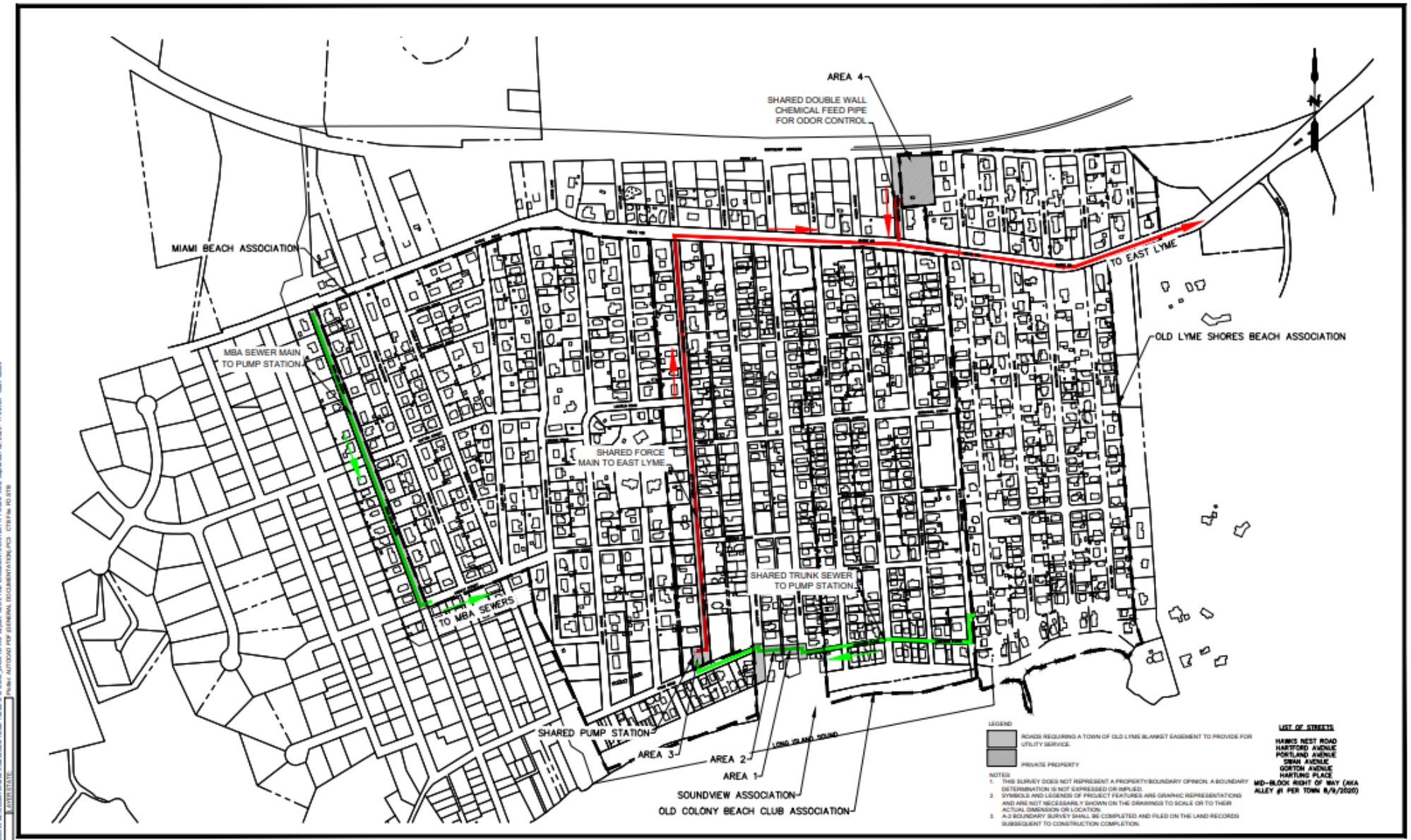
Benefit Assessment

Methodology and Calculations

September 2020

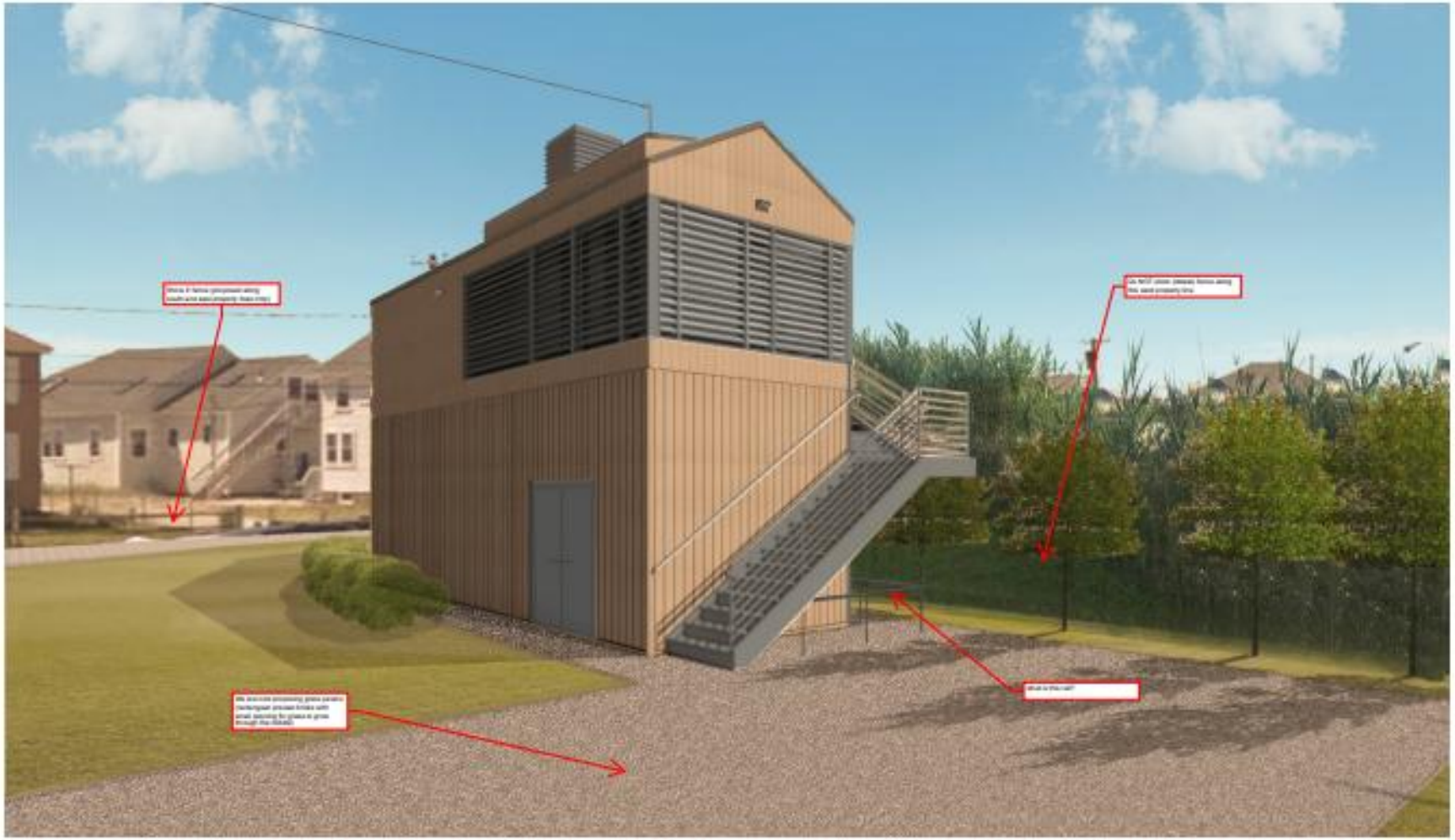

PROJECT TIMELINE - Old Colony Beach Club Association Sewer and Other Infrastructure
FUSS & O'NEILL
OCBCA Proprietary - 2020 Member Previladge Information
9/12/2020
2010
Board of Governors Voted and Approved Wastewater Management Study - September 2010
2011
RJP Public Hearing for OCBCA Facilities Plan - November 19, 2011
2012
DEEP issues Consent Order to OCBCA - August 20, 2012
2013
2014
2015
Initial EIE for 3 Associations Submitted - October 15, 2015
2016
Three Beach Association Cost Sharing Agreement Finalized - April 25, 2016
2017
Connecticut Environmental Protection Act and OPM Record of Decision (ROD) for OCBCA, OLSBA, MBA Review Completed October 2, 2017
2018
Unified Three Association Consent Order Issued by DEEP - February 14, 2018
Finalized New London IMA - April 27, 2018
Finalized East Lyme IMA - July 24, 2018
Begin to Develop 73 Portland Avenue as PS site - October 28, 2018
Old Lyme Zoning Commission (Regulation Change for Pump Station) for Shared Infrastructure Submitted - December 31, 2018
2019
Old Lyme Zoning Commission (Regulation Change) for Shared Infrastructure Approved - April 8, 2019
Clean Water Fund Grant/Loan for OCBCA Application Submitted - April 4, 2019
Begin Negotiations for Private property easements - June 7, 2019
Initiate Contact with Ledge Light Health District regarding Well Encroachment - July 15, 2019
Old Lyme Zoning Board of Appeals (ZBA) for Pump Station Approved July 16, 2019
Clean Water Fund Grant/Loan Agreement for OCBCA Approval Closing August 28, 2019
Old Lyme Zoning Commission (Special Permit) Shared Infrastructure (for Pump Station Site Plan) Approved October 15, 2019
Well Encroachment Memo Sent to DEEP - October 10, 2019
2020
Presentation for Town Roads easements at BOS meeting – January 6, 2020
Plans and profiles for Route 156 force main and standard M&P of T plates were submitted to CTDOT on January 29, 2020 for approval
Application for license agreement for pipeline installation (form, plans, check) were submitted to AMTRAK for review on January 28, 2020
Preliminary Design Report for OCBCA Submitted – February 4, 2020
First Documents Drafted for Negotiation with Soundview to join CSA - February 7, 2020
Old Lyme Planning Commission (Section 8-24 Referral) All projects Approved – February 13, 2020
Flood Management Certificate (FMC) Application submitted to DEEP – March 12, 2020
CTDEEP Coastal Resources General Permit (For Sanitary Sewers) for Shared Infrastructure Submitted – March 17, 2020
Stormwater Management Plan for OCBCA Submitted - March 25, 2020 (Revised – April 6, 2020)
United States Army Corp's of Engineers – Connecticut Programmatic General Permit No. 6, Pre-Construction Notification (CTPGP No. 6 PCN) for Shared Infrastructure Submitted – April 16, 2020
Old Lyme Inland Wetland & Watercourses Commission (IWWC) for OCBCA Submitted – April 29, 2020
Additional Geotech Investigation Conducted for Unsuitable Soils along Hartung Ave. and Pond Rd- June 9, 2020
Associations Submit Letters to amend IMA's in East Lyme and New London for Town Flow contribution - May 2020
United States Army Corp's of Engineers – Connecticut Programmatic General Permit No. 6, Pre-Construction Notification (CTPGP No. 6 PCN) for Shared Infrastructure Approved – June 24, 2020
Old Lyme Inland Wetland & Watercourses Commission (IWWC) for OCBCA Approved – June 23, 2020
Connecticut Department of Health Letters Issued to DEEP/ Associations Regarding Well Encroachment – June 29, 2020
Submit revised DOT draft encroachment permit w/FM between girders - July 28, 2020
Flood Management Certificate (FMC) Revised Application submitted to DEEP – August 21, 2020
CTDEEP Coastal Resources General Permit (For Sanitary Sewers) for Shared Infrastructure Approved – August 24, 2020
Flood Management Certificate (FMC) Anticipated Approval – September 30, 2020
Special Permit to Old Lyme Zoning Commission for Infrastructure Improvements internal to Associations Approval Anticipated – October 10, 2020
Submit Structures, Dredge and Fill (SDF) Permit Application – October 7, 2020
OCBCA Detailed Design Complete – October 29, 2020
Structures, Dredge and Fill (SDF) Anticipated Approval November 9, 2020
Amtrak Approval – November 9, 2020
OCBCA Sewers and Association Improvements Project Advertised to Bid – November 11, 2020
Construction Bids Due – December 11, 2020
Recommendation to Award to Association – December 18, 2020
Recommendation to Award to DEEP - December 21, 2020
Submit CWF Construction Application - December 23, 2020
Award Construction Contract – February 1, 2021
2021
Begin Construction – February 15, 2021
Sewers/Roadways Construction Substantially Complete – February 15, 2022
2022
Project Closeout/Final Roadway Paving – May 19, 2022
Begin Connecting Properties to Infrastructure – June 30, 2022

PLAN OF PROPOSED EASEMENT TO USE TOWN ROADS AND A TOWN ALLEY FOR A SANITARY SEWER PROJECT



OCBCA Proprietary – 2020 Member Previladge Information

Pump Station Rendering



Basic Concept: Pollution Problem

- Multiple Studies Confirm Pollution Problem in Beaches of Old Lyme
- DEEP Issued Pollution Abatement Order to OCBCA: Sewers Required by 12/31/2019 (extended due to progress being made on project)
- Water quality sampling: groundwater contamination due to inadequate septic systems. High levels of ammonia, nitrates and coliform bacteria; soils are poorly suited for the density of homes that currently exist in the beach area

OCBCA Proprietary - 2020 Member Previladge Information

Why can't we just fix the problems?

- Almost no property in Old Colony Beach can be fixed with an on-site septic upgrade.
- In OCBCA, the best approach is to solve the problem with a community solution, not an onsite solution.

OCB WPCA Mandate

- Develop Sewage System Project Per State Statutes
- Levy Benefit Assessments to Properties
- Authorities—Connecticut General Statutes
  - WPCA to levy benefit assessments per "such rule as the water pollution control authority adopts." CGS Section 7-249.
  - No assessment shall be made until after a public hearing before the WPCA at which owners of properties assessed shall have opportunity to be heard and right to appeal assessments. CGS Section 7-250.

Benefit Assessment Guiding Principals

- Every Property Benefits Equally
  - Awareness of Properties that Receive a Greater Benefit
- Statutory / Regulation Compliant
- Fair
- Equitable
- Simple

Benefit Assessment Methodologies NOT Considered

- Counting Bedrooms / Bathrooms / Kitchens
- Counting Toilets
- Counting Bathtubs / Showers
- Counting Drains

History of Benefit Assessment

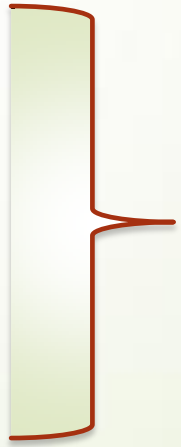
Four Years of WPCA Meetings and Discussions With Public Input

- Attending WPCA Meetings
- Correspondence

Consultations with Two Appraisers

Investigated Many Different Methodologies for Calculating Benefit Assessment

- Uniformity Based (one assessment fits all)
- Structures Based
- Occupation Based
- Tax Assessment Based
- Structure Square Footage Based
- Property Frontage Based



Failed to Satisfy our Guiding Principals

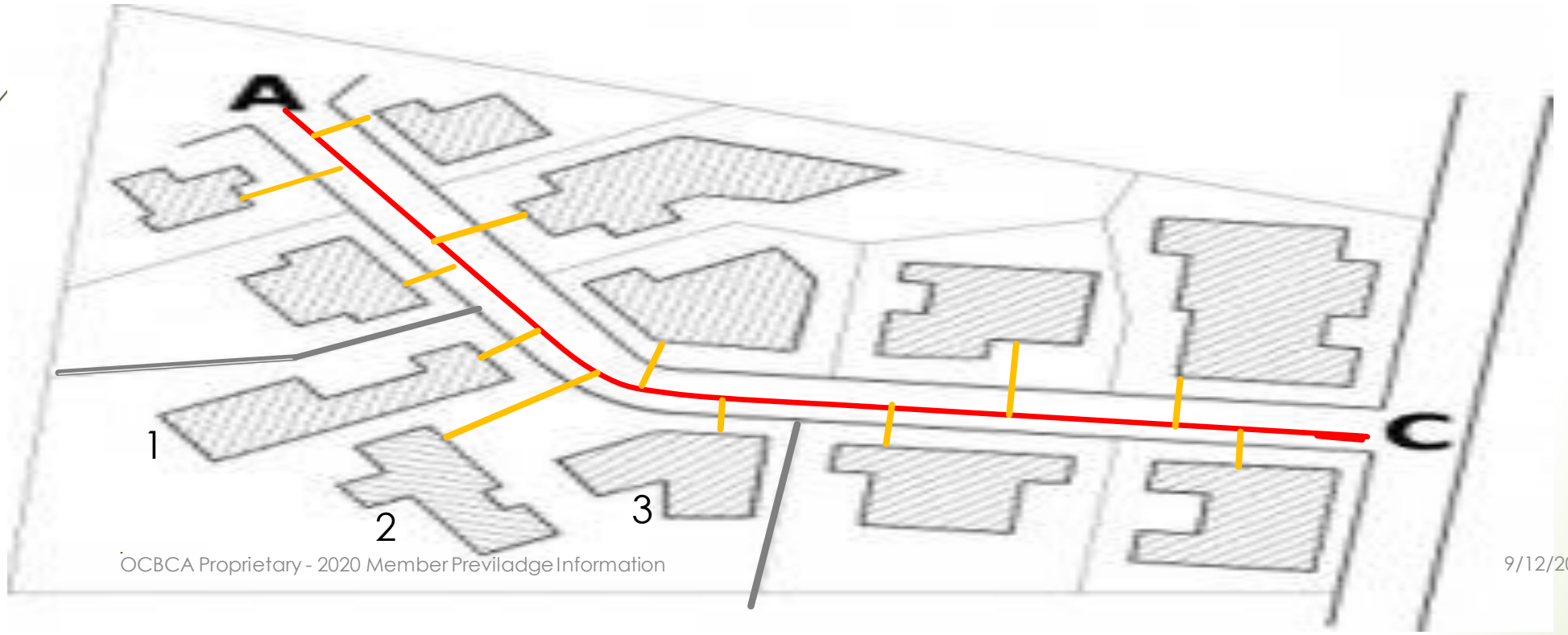
Elements in Common

Property: Plot of Land Containing at Least 1 Structure

Structure: Structure containing a bedroom, a bathroom and a kitchen

Sewer Main: Generally Runs in Center of Roadway

Laterals: Connects Structures to the Sewer Main – **Every Structure will have its own Independent Lateral**



Benefit Assessment - Lateral Based

Properties with one Structure (1 Lateral)

Base Assessment

Properties with multiple Structures (Multiple Laterals)

Base Assessment

(+) 25 % Upcharge (for each additional Lateral)

Total Assessment

Benefit Assessment Rules

Non-Condos

1) Base Assessment Plus 25% upcharge for each additional lateral

Condos

Structures with one owner

2) Base Assessment

Structure with multiple owners under one roof

3) Base Assessment for first Lateral plus 25% surcharge for each additional Lateral / Owner, the sum of which to be distributed equally by all condo owners

Commercial (Residential Rental Property with 5 or more Rental Units)

4) Base Assessment times two (2)

Base Assessment Calculation

$$\frac{\text{Construction Cost}}{[(178)+(12+12*0.25)+(1+1*0.5)+(1+1*1.75)+(1+1*1)+(1*2)]}$$

Base Assessment = $30,751.19

Annual Payment 20 Year
Loan at 2% Interest = $1,880.64

Benefit Assessment Calculations

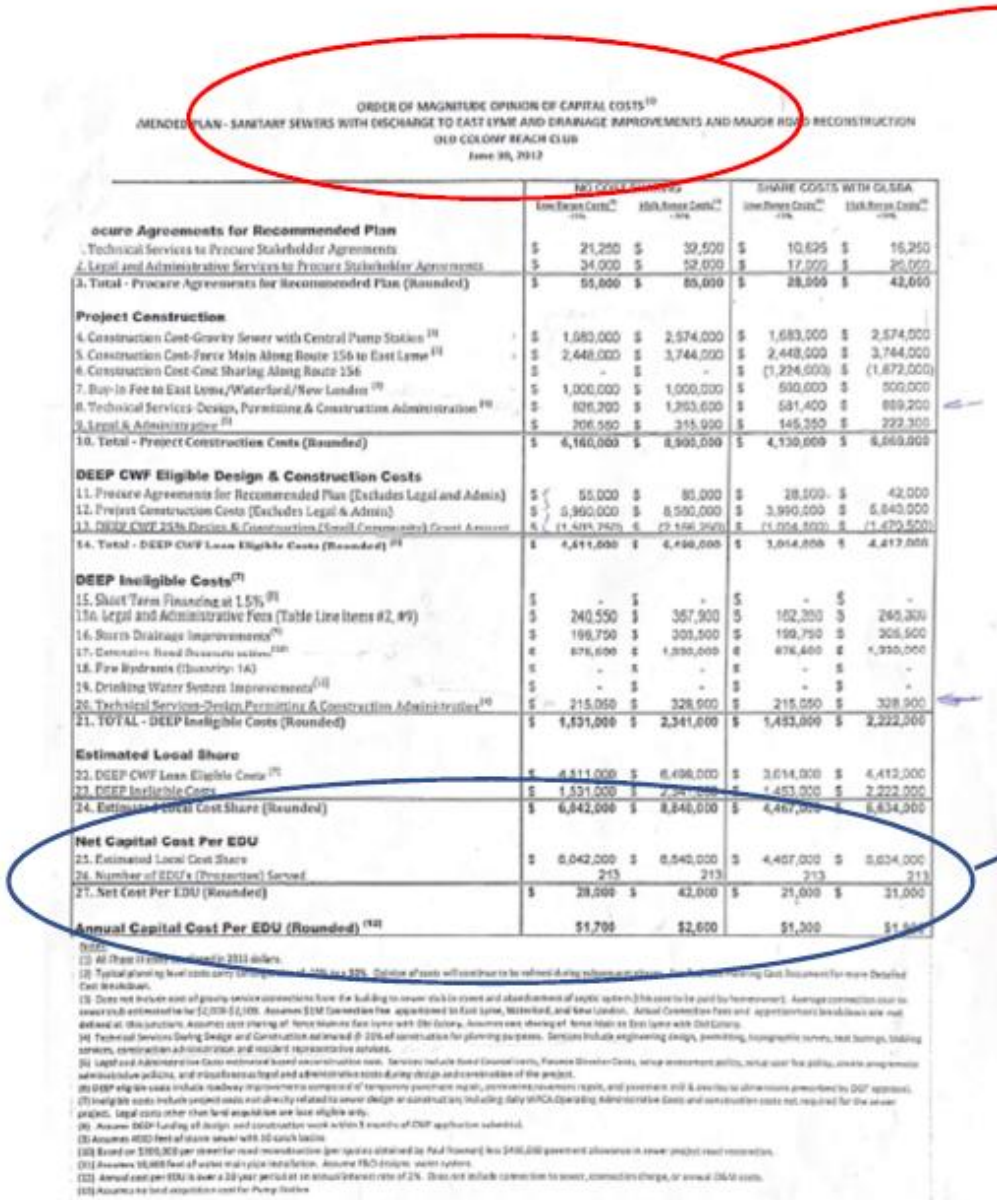
Construction Cost Based on Engineers Estimate of 9/12/20	$6,157,924	Benefit Assessment Calculation Based on Number of Laterials

	Properties	Structures
Properties with 1 struct.	178	178
Properties with 2 struct's	12	24
Properties with 3 struct's	1	3
Properties with 4 Unit's	1	1
Properties with 5 struct's	1	5
Commercial Property	1	1
	194	**212**

	BASE ASSESSMENT					**$30,751.18**
	25% surcharge for each additional lateral					**(+)** (Varies)
	TOTAL BENEFIT ASSESSMENT					(Varies)
	178	**12**	**1**	**1**	**1**	**1**
	1 Structure on Property	**2 Structures on Property**	**3 Structures on Property**	**4 Condo Units on Property**	**5 Structures On Property**	**Commercial Property**
Benefit Assessment	$30,751.18	$38,438.98	$46,126.77	$53,814.57	$61,502.36	$61,502.36
Annual Payment	**($1,880.64)**	**($2,350.80)**	**($2,820.96)**	**($3,291.12)**	**($3,761.28)**	**($3,761.28)**
Total Collected	$5,473,710.22	$461,267.72	$46,126.77	$53,814.57	$61,502.36	$61,502.36

Benefit Assessment Guiding Principals

- Every Property Benefits Equally
  - Some Properties Receive Greater Benefits
- Statutory / Regulation Compliant
- Fair
- Equitable
- Simple



ORDER OF MAGNITUDE OPINION OF CAPITAL COSTS[1]
AMENDED PLAN - SANITARY SEWERS WITH DISCHARGE TO EAST LYME AND DRAINAGE IMPROVEMENTS AND MAJOR ROAD RECONSTRUCTION
OLD COLONY BEACH CLUB
June 30, 2012

	NO COST SHARING		SHARE COSTS WITH OLSSA	
	Low Range Costs[2] -15%	High Range Costs[2] +30%	Low Range Costs[2] -15%	High Range Costs[2] +30%
ocure Agreements for Recommended Plan				
Technical Services to Procure Stakeholder Agreements	$ 21,250	$ 39,500	$ 10,625	$ 16,250
2. Legal and Administrative Services to Procure Stakeholder Agreements	$ 34,000	$ 52,000	$ 17,000	$ 25,000
3. Total - Procure Agreements for Recommended Plan (Rounded)	$ 55,000	$ 85,000	$ 28,000	$ 42,000
Project Construction				
4. Construction Cost-Gravity Sewer with Central Pump Station [3]	$ 1,080,000	$ 2,574,000	$ 1,683,000	$ 2,574,000
5. Construction Cost-Force Main Along Route 156 to East Lyme [3]	$ 2,448,000	$ 3,744,000	$ 2,448,000	$ 3,744,000
6. Construction Cost-Cost Sharing Along Route 156	$ -	$ -	$ (1,224,000)	$ (1,872,000)
7. Buy-In Fee to East Lyme/Waterford/New London [3]	$ 1,000,000	$ 1,000,000	$ 500,000	$ 500,000
8. Technical Services-Design, Permitting & Construction Administration [4]	$ 926,200	$ 1,263,600	$ 581,400	$ 889,200
9. Legal & Administrative [5]	$ 206,550	$ 315,900	$ 146,550	$ 222,300
10. Total - Project Construction Costs (Rounded)	**$ 5,160,000**	**$ 8,900,000**	**$ 4,130,000**	**$ 6,060,000**
DEEP CWF Eligible Design & Construction Costs				
11. Procure Agreements for Recommended Plan (Excludes Legal and Admin)	$ 55,000	$ 85,000	$ 28,000	$ 42,000
12. Project Construction Costs (Excludes Legal & Admin)	$ 5,960,000	$ 8,550,000	$ 3,990,000	$ 5,640,000
13. DEEP CWF 25% Design & Construction (Small Community) Grant Amount	$ (1,489,750)	$ (2,196,250)	$ (1,004,500)	$ (1,420,500)
14. Total - DEEP CWF Loan Eligible Costs (Rounded) [6]	**$ 4,511,000**	**$ 6,496,000**	**$ 3,014,000**	**$ 4,412,000**
DEEP Ineligible Costs[7]				
15. Short Term Financing at 1.5% [8]	$ -	$ -	$ -	$ -
16. Legal and Administrative Fees (Table Line Items #2, #9)	$ 240,550	$ 367,900	$ 162,550	$ 245,300
17. Storm Drainage Improvements [9]	$ 166,750	$ 303,500	$ 166,750	$ 303,500
18. Generator, Road Resurfacing [10]	$ 676,600	$ 1,930,000	$ 676,600	$ 1,930,000
19. Fire Hydrants (Quantity: 16)	$ -	$ -	$ -	$ -
20. Drinking Water System Improvements [11]	$ -	$ -	$ -	$ -
21. Technical Services-Design, Permitting & Construction Administration [12]	$ 215,050	$ 328,900	$ 215,050	$ 328,900
22. TOTAL - DEEP Ineligible Costs (Rounded)	**$ 1,331,000**	**$ 2,941,000**	**$ 1,453,000**	**$ 2,222,000**
Estimated Local Share				
23. DEEP CWF Loan Eligible Costs [7]	$ 4,511,000	$ 6,496,000	$ 3,014,000	$ 4,412,000
24. DEEP Ineligible Costs	$ 1,531,000	$ 2,941,000	$ 1,453,000	$ 2,222,000
25. Estimated Local Cost Share (Rounded)	**$ 6,042,000**	**$ 8,840,000**	**$ 4,467,000**	**$ 6,634,000**
Net Capital Cost Per EDU				
25. Estimated Local Cost Share	$ 6,042,000	$ 8,840,000	$ 4,467,000	$ 6,634,000
26. Number of EDU's (Properties) Served	215	213	213	213
27. Net Cost Per EDU (Rounded)	**$ 28,000**	**$ 42,000**	**$ 21,000**	**$ 31,000**
Annual Capital Cost Per EDU (Rounded) [13]	**$1,700**	**$2,600**	**$1,300**	**$1,900**

Notes:

(1) All Phase II costs developed in 2011 dollars.

(2) Typical planning level costs carry [illegible] and -15% to +30%. Opinion of costs will continue to be refined during subsequent phases. See Basis of Planning Cost Document for more Detailed Cost Breakdown.

(3) Does not include cost of gravity service connections from the building to sewer stub in street and abandonment of septic system (this cost to be paid by homeowner). Average connection cost to sewer stub estimated to be $2,000-$3,000. Assumes $1M Connection Fee apportioned to East Lyme, Waterford, and New London. Actual Connection Fees and apportionment breakdown are not defined at this juncture. Assumes cost sharing of force main to East Lyme with Old Colony. Assumes cost sharing of force main to East Lyme with Old Colony.

(4) Technical Services During Design and Construction estimated @ 25% of construction for planning purposes. Services include engineering design, permitting, topographic survey, test borings, bidding services, construction administration and resident representative services.

(5) Legal and Administrative Costs estimated based on construction cost. Services include bond counsel costs, Finance Director Costs, sewer assessment policy, actual user fee policy, create sewer service administrative policies, and miscellaneous legal and administrative costs during design and construction of the project.

(6) DEEP eligible costs include roadway improvements comprised of temporary pavement repair, permanent pavement repair, and pavement mill & overlay to dimensions prescribed by DOT standards.

(7) Ineligible costs include project costs not directly related to sewer design or construction including daily WPCA Operating Administrative Costs and construction costs not required for the sewer project. Legal costs other than land acquisition are also ineligible only.

(8) Assumes DEEP funding of design and construction work within 9 months of CWF application submittal.

(9) Assumes 4000 feet of storm sewer with 10 catch basins.

(10) Based on $300,000 per street for road reconstruction (per quotes obtained by Paul Howard less $450,000 pavement allowance in sewer project road reconstruction.

(11) Assumes 10,000 feet of water main cross connection. Assume PBCD designs water systems.

(12) Annual cost per EDU is over a 20 year period at an annual interest rate of 2%. Does not include connection to sewer, connection charge, or annual O&M costs.

(13) Assumes no land acquisition cost for Pump Station