

WRAC Meeting 1/9/2023 4:00pm

The Yarmouth Resources Advisory Committee held a Business Meeting at 4:00 pm on **Monday January 9th, 2023**. The meeting was a hybrid meeting conducted in person in the Town Hall Hearing room and through Zoom videoconferencing.

Committee Members Present: Mary Craig, Lee Rowley, John Deliso, George Perkins, Spyro Mitrokostas, Joanne Crowley, Curt Sears

Others: Mark Forest, Board of Selectman; Bob Whritenour, Town Administrator; Jeff Colby, DPW Director; Laurie Ruzala, Water/Wastewater Superintendent; Bruce Murphy, Health Director; Jay Gardiner, Assistant Health Director; Kara Johnston, David Young, Matt Pitta, Bill McConnell and Michael Guidice from CDM Smith, Louis Ragozzino, Wright-Pierce; Rick Bishop, Mark Galkowski, Joe Manning, Christine Kurtz, Tom Durkin

Called to order: 4:07pm

OPM Update: Wright-Pierce provided a progress report by Louis Ragozzino. Wright Pierce 2 page hand out is attached to these minutes. Yarmouth has highest ranking on the IDP of the 2023 Clean Water SRF Draft intended Use Plan issued December 16, 2022. Completion of 30% WRRF comments and cost savings suggestions and Completion of 60% Collection system design review

Design Update and WRRF and Collection System: CDM Smith has provided slides for their discussion which is attached to these minutes. NE Boring completed 56 of 109 sites, started beginning of December about 50% complete look to be done potentially mid-February. The Collection system maps – can the Town get updated Mapping as residents are coming in to ask WHEN for their street is going to be done.

Cost Discussion: CDM Smith slides. MASSDOT at this time there is no assistance from them but moving forward with he hopes that they come back in. Mention of intersections to roundabouts with lights. Mark Forest is the Barnstable County Rep for the MPO (Metropolitan Planning Organization) they continue to discuss and pressure to get the MASSDOT back on track for the road projects. Contract 2-3 – permit application. Contract 3 – North Main – Fall of 2023. Discussion of cost savings ideas. Add alternatives.

Regulatory/Permitting Update: in process as needed

DEP Nitrogen Sensitive Regulation Response: Board of Selectman on 1/10/2023 – letter response to DEP. Calling out the DEP – Mark Forest discussed DEP delaying regulations of watershed regulations. All towns are encouraged to write a letter that is very candid. The committee was agreeable to the letter that was presented to BOS

WRAC Neighborhood Meetings: not discussed

Friends of Bass River Update: MEPA permitting process for wetlands restoration on 1/10/2023 at 11am and Zoom meetings at 3pm and 8pm – upper Bass River Watershed water quality issues

Review of Past Meeting Minutes: pushed to next meeting

Future Meeting Dates/Agenda Items: quick discussion of potential of earlier meeting then a month to discuss financials.

Meeting Adjourned: 5:37pm – Curt made the motion and Joanne seconded and all in favor

Attachments:

Wright Pierce- Progress Report dated 1/7/2023

CDM Smith Wastewater update slides dated 1/9/2023

APPROVED MINUTES AT THE 2/13/2023 MEETING

APPROVED

Date & Time: **1/7/2023 4:00 PM**

Location: **Yarmouth Department of Public Works**

Project: **Yarmouth Wastewater Collection System and Water Resource Recovery Facility**

Objective: **Water Resource Recovery Facility Design – WRAC Meeting**

Meeting Topic

1. Deliverables Schedule / Critical Milestones (3 month Look ahead)

- a. Water Resource Recovery Facility
 - i. Groundwater Discharge Permit – Status, Mass DEP Meeting Results
 1. DEP request for review period extension
 2. DEP is review application internally. CDM has requested a review meeting.
 3. Cape Cod Commission 208 Consistency Review
 - ii. November 29, 2022 30% Design Submission
 - iii. December 14, 2022 30% Design Workshop
 - iv. December 15, 2022 Cost Savings Action Items review
- b. Collection System East of Parker's River (Rt. 28, South Shore Drive, and)
 - i. September 23, 2022 Technical Memorandum/30% Design Review Completion
 1. OPM completed review of preliminary collection system plans for Contract 2 and 3.
 - ii. November 30, 2022 60% Design Submittal for Contracts 2 and 3
 - iii. 60% Design Review Workshop – TBD
 - iv. December 13, 2022 – MADOT TIP meeting
 - v. January 6, 2023 Pump Station alternatives memo

2. Cash Flow Estimate/Funding

- Updated Cost Estimate memorandum was prepared and submitted to the Town on October 13, 2022.
- WRRF 30% design opinion of probable construction cost submitted.
- Collection System 60% design opinion of probable construction cost is in progress.
- 2023 Clean Water SRF Draft Intended Use Plan issued on December 16, 2022. Yarmouth has highest ranking.

3. Action Item Review

- a. Completion of 30% WRRF comments and cost saving suggestions
- b. Completion of 60% Collection system design review
- c. Comments on Pumping Stations Alternative memo

4. Accomplishments to Date

- July 23 - W-1 Flow and Load Criteria Technical Memoranda
- W-2 Effluent Water Quality Criteria Technical Memoranda
- July 28 - Hydrogeologic Evaluation report submittal to Mass DEP
- Site Visit to Cohasset MBR Wastewater Treatment Plant
- August 2 - Board of Selectmen SRF Application Presentation
- August 3 - Architectural Concepts Meeting
- August 9 - W-4 Biological Process Alternatives Evaluation and Recommendation TM
- Phase 1 Collection System Schedule
- August 10 - Draft Supplemental Environmental Impact Report
- August 12 - 2023 Clean Water Construction Project Evaluation Form
- 2023 Drinking Water Construction Project Evaluation Form
- August 15 - Supplemental Environmental Impact Report to MEPA
- August 15 - Water Resources Advisory Committee Meeting
- Sept. 1 - W-3 Septage and Grease Receiving Considerations
- Sept. 9 - The following new design criteria memos were submitted for review.
- Sept. 22 - Design Memorandum Review Workshop
- Sept. 23 - Contract 2 and Contract 3 - Collection System Technical Memorandum/30% Design Submittal
- Sept. 27 - Board of Selectmen meeting – request for cost back-up for Phase I collection system
See attached memorandum from CDM Smith dated September 28, 2022
- Oct. 3 - Water Resources Advisory Committee Meeting
- Oct. 13 - Updated Cost Estimate memorandum
- Oct. 20 - Monthly Progress meeting
- Nov. 29 - WRRF 30% Preliminary Design Report and Plans
- Nov. 30 - Collection System 60% Design for Contracts 2 and 3
- Dec. 5 - Water Resources Advisory Committee Meeting
- Dec. 13 - MADOT TIP Meeting
- Dec. 14 - WRRF Workshop – Cost Savings Alternatives Discussion
- Jan. 6 - Pump Station Alternatives memorandum

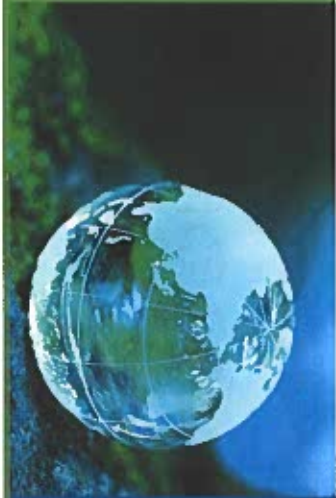
5. Contract Schedule

<u>Contract</u>	<u>Name</u>	<u>Construction Start date</u>
1	Contract 1 - WRRF	2/1/2024
2	Contract 2 - Collection East of Parker's River (Route 28/Long Pond to N. Main Street)	7/1/2023
3	Contract 3 - Collection East of Parker's River (Bridge to Route 28/Long Pond including South Shore Drive)	7/1/2023
4	MassDOT Rt. 28/N. Main Street Intersection	3/1/2024*
5	MassDOT Rt. 28 West of Parker's River	6/30/2024*
6	West of Parker's River (non MassDOT and PS)	6/30/2024

(* To be determined by MassDOT project schedule)

Yarmouth Wastewater

Water Resources Advisory Committee



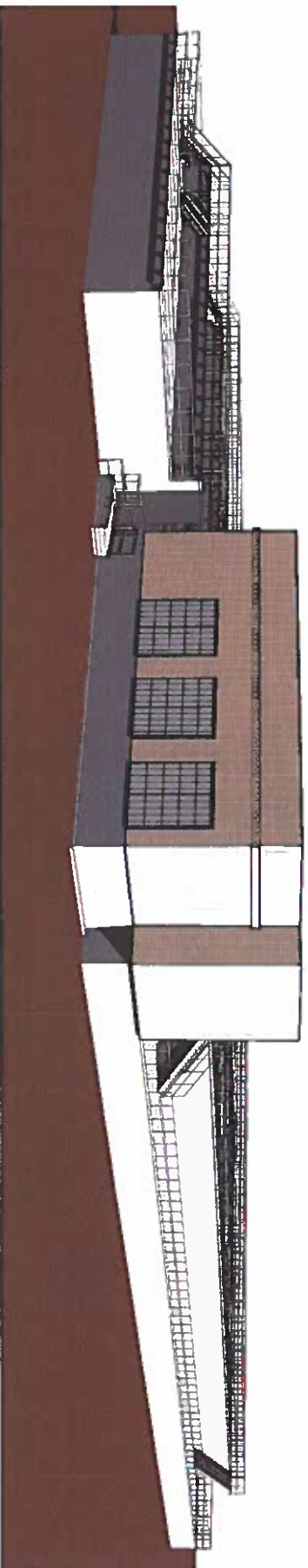
January 9, 2023

GDM
smith

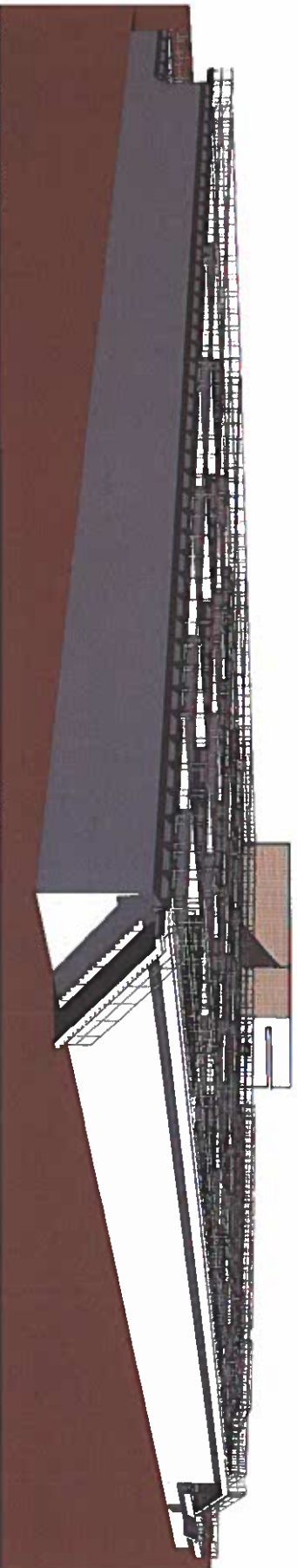
WRRF Design Update

- Draft 30 Percent Design Submittal 11-29-2022
- Review workshop held 12-14-2022
- Value engineering (VE) ongoing
- Final 30 Percent Design Submittal immediately upon closure of VE items
- Next milestone submittal: 60 percent March 2023

WRRF Design Update



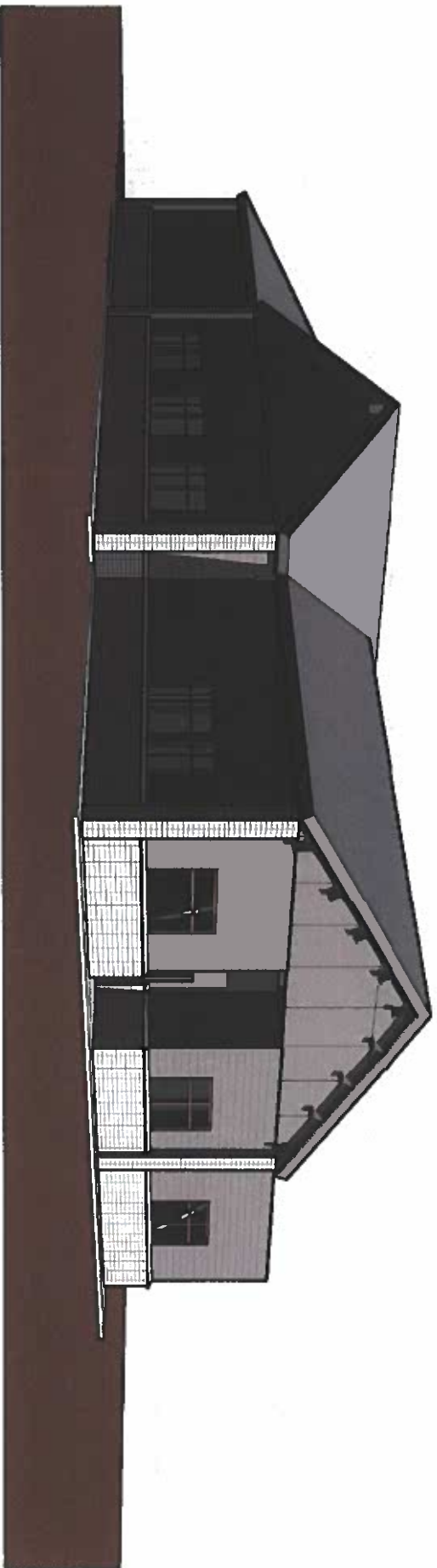
PERSPECTIVE VIEW



PERSPECTIVE VIEW



WRRF Design Update



PERSPECTIVE VIEW



Collection System Design Update

- Draft 60 Percent Design Submittal 11-30-2022
- Drilling program commenced 12-5-2022
 - 56 of 109 borings completed
- Next milestone submittal: 90 percent 2-17-2023
- MassDOT Coordination meeting held December 13th
 - Route 28 West Project (Contract 5)
 - Route 28/N. Main Street Intersection Project (Contract 4)
 - Contract 2 and 3 Highway Access Permit Application underway
- Route 28/Old Main Street abutting properties all included in Phase 1
- Request for Determination of Applicability (RDA)

Phase 1 Cost Update

- Opinion of Probable Construction Cost (OPCC) completed for:
 - WRRF 30 percent design
 - Collection System 60 percent design
- Overall Phase 1 OPCC: \$212.4M
- CDM Smith developed cost savings ideas
- Value Engineering/Alternatives Evaluations ongoing

Phase 1 Cost Update

Estimate Milestone	WRRF	Collection System	Total
SRF Project Evaluation Form (PEF)	\$126,400,000	\$80,900,000	\$207,300,000
Opinion of Probable Construction Cost (OPCC)	\$136,900,000	\$75,500,000	\$212,400,000

Notes:

- PEF submitted August 2022
- OPCC developed December 2022 based on 30 percent WRRF design and 60 percent Collection System design.
- OPCC includes Construction Contingency of 20 percent for WRRF and 15 percent for Collection System and escalation of 7 percent per year to mid-point of construction (January 2025 for WRRF and December 2024 for Collection System).
- Costs include engineering services during construction (WRRF and Collection System) and police details for Collection System.

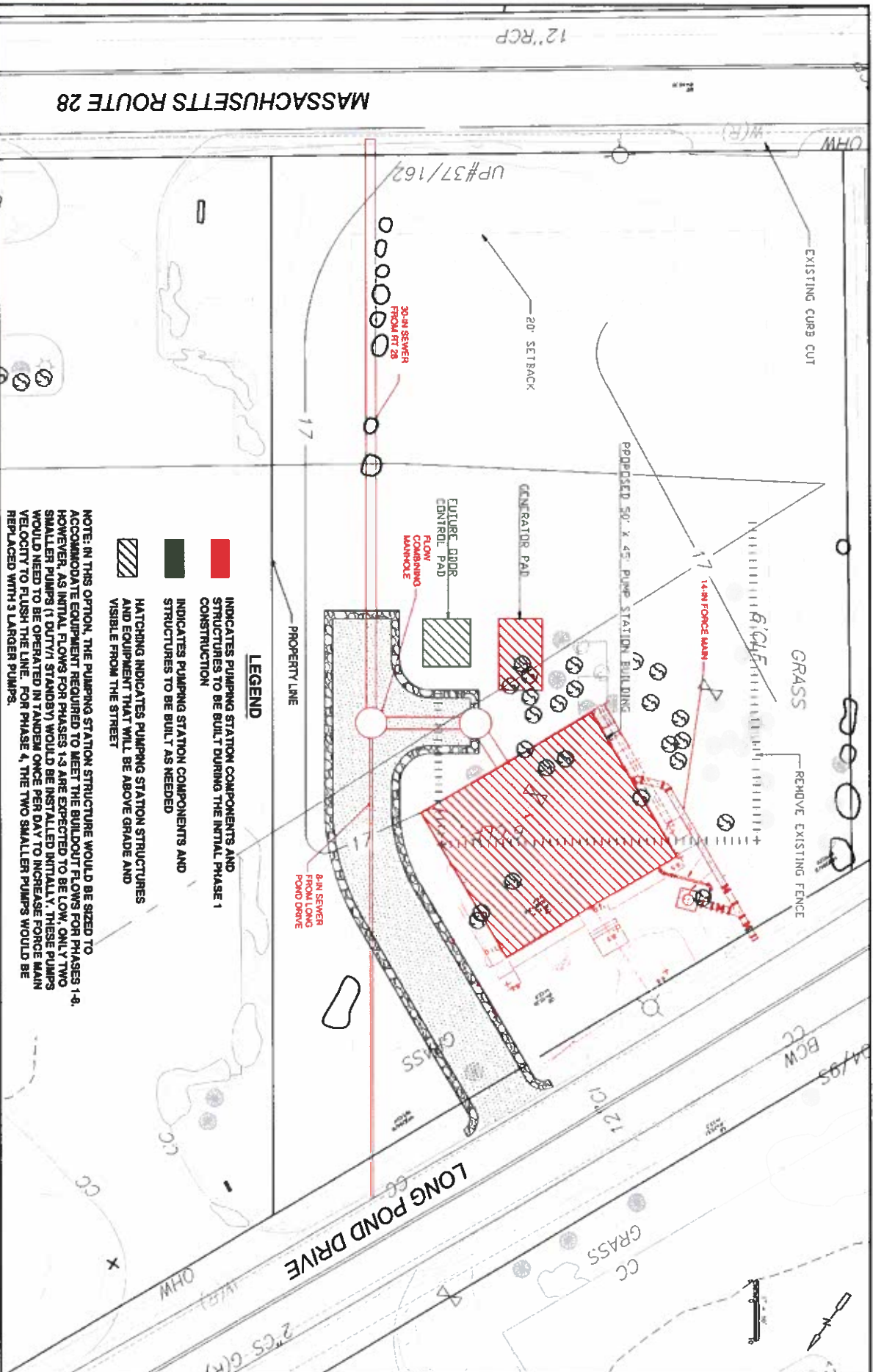
CDM Smith WRRF Cost Savings Ideas

Potential Cost Savings Ideas	Description	Cost range
PCS 1	Remove odor control for WAS and TWAS storage tanks	\$0.5 - \$1.0 M
PCS 2	No fully-enclosed building for UV system	\$0.3 - \$0.5 M
PCS 3	No process gallery, replace with valve vaults	\$0.5 - \$1.0 M
PCS 4	No inlet tanks at headworks, replace with alternate design	\$0.8 - \$1.2 M
PCS 5	Reduce size of Headworks Building with alternative future bypass idea	\$0.2 - \$0.5 M
PCS 6	Use HDPE instead of buried DIP	\$0.2 - \$0.4 M
PCS 7	Remove Vehicle Storage Building from project	\$2.5 - \$3.0 M
PCS 8	Reduce square footage of non-process spaces in Process Building	\$0.3 - \$0.5 M
PCS 9	Reduce import of sand for infiltration basins	\$2.5 - \$3.0 M
PCS 10	Delay procurement of denite filter equipment if permit terms allow	\$4.0 - \$5.0 M
PCS 11	Delay construction of denite filter process if permit terms allow	\$1.5 - \$2.0 M
PCS 12	Reduce surface area of infiltration basins depending on final GWDP	\$1.5 - \$2.0 M
PCS 13	Postpone construction of 4 th SBR (would reduce WRRF capacity)	\$6.0 - \$8.0 M
PCS 14	Eliminate form liner around the SBR complex	\$0.2 - \$0.3 M
PCS 15	For Process Building revise to flat roof design	\$0.1 - \$0.2 M

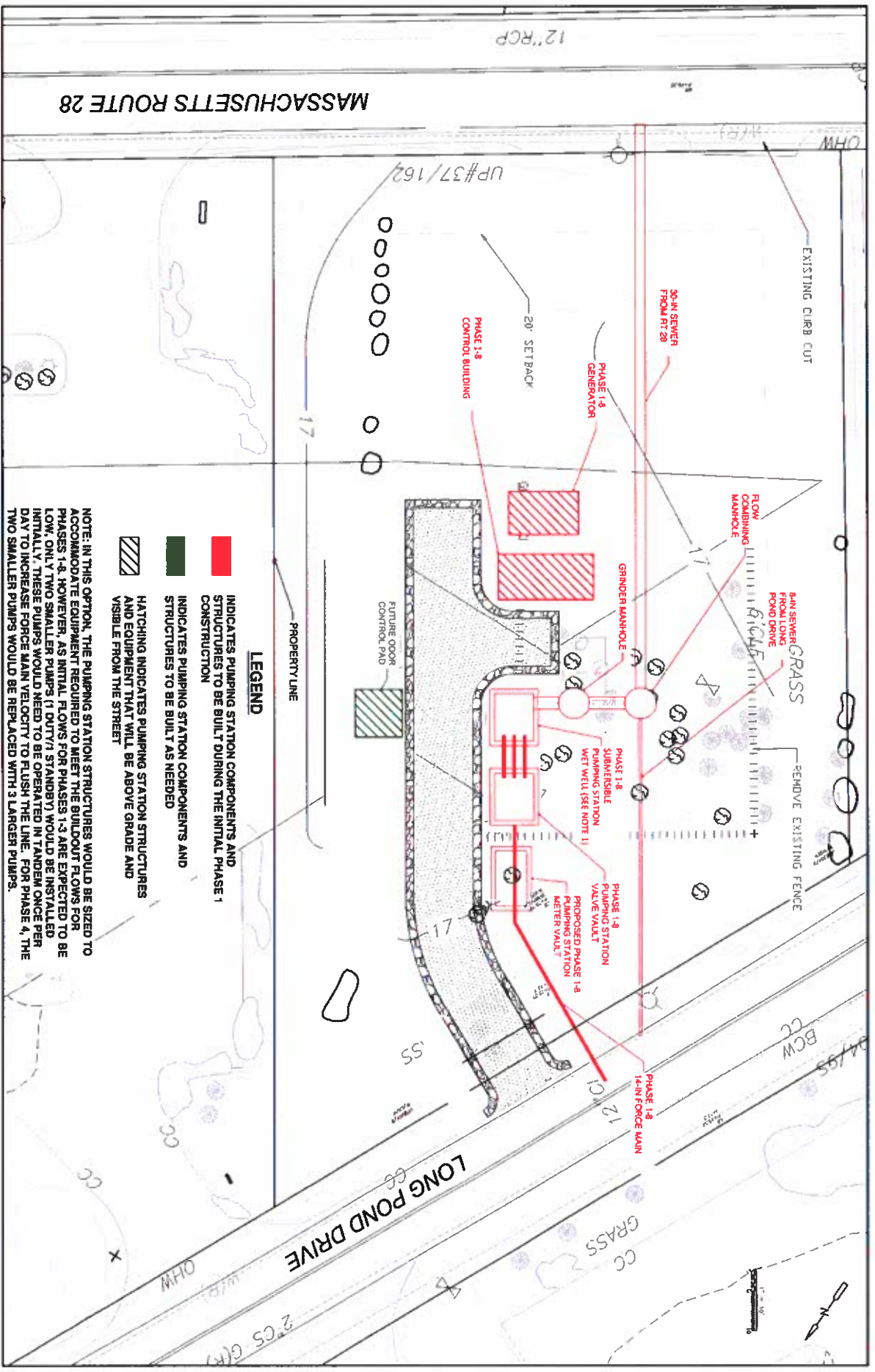
Collection System Cost Savings Ideas

- Alternative PS4 (Long Pond Drive) configurations
- Change force main material from ductile iron to HDPE
- Add Alternates for side streets in Contract 2 developed

PS4 Design Alternative 1



PS4 Design Alternative 2



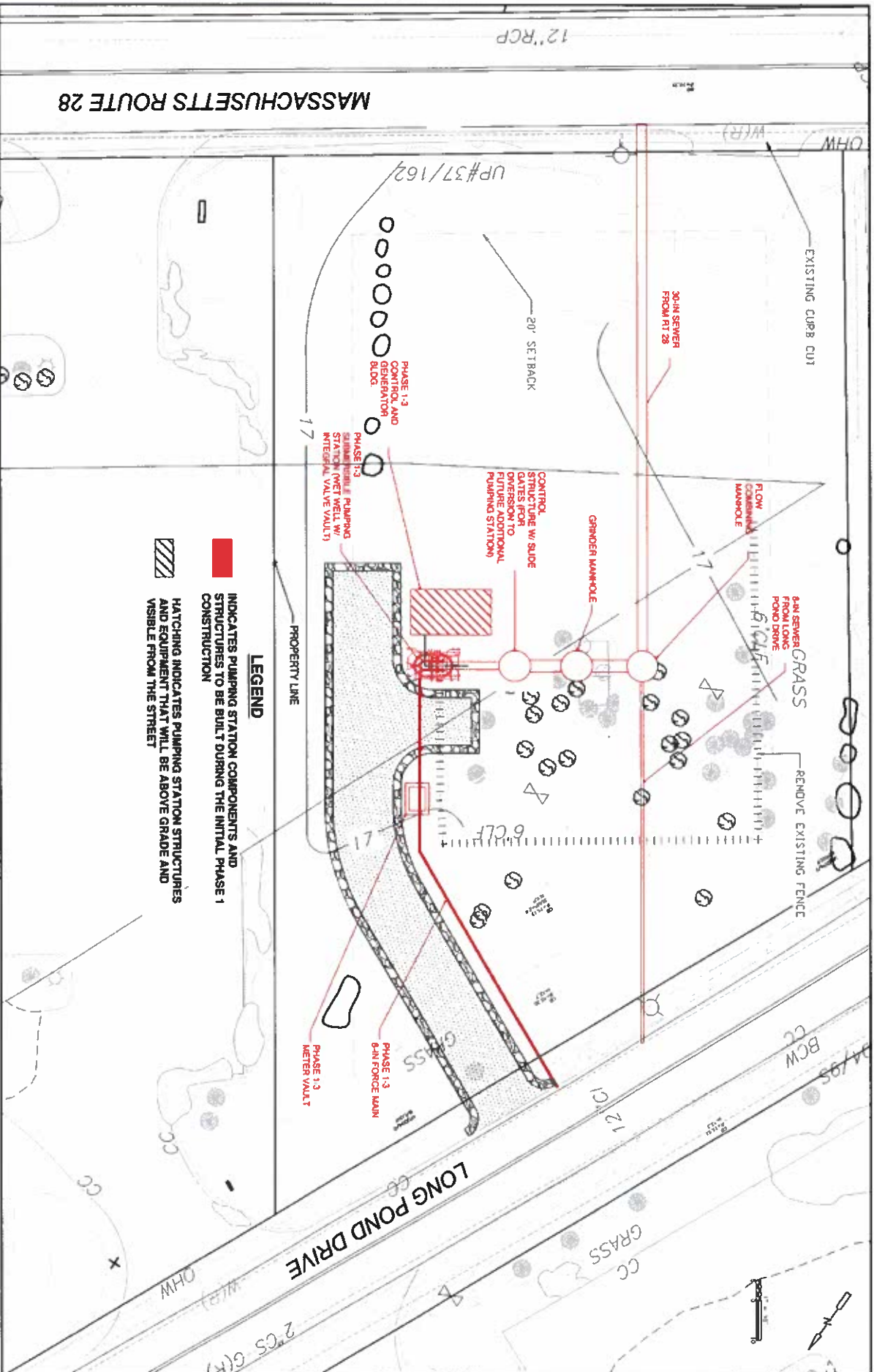
- LEGEND**
- INDICATES PUMPING STATION COMPONENTS AND STRUCTURES TO BE BUILT DURING THE INITIAL PHASE 1 CONSTRUCTION
 - INDICATES PUMPING STATION COMPONENTS AND STRUCTURES TO BE BUILT AS NEEDED
 - HATCHING INDICATES PUMPING STATION STRUCTURES AND EQUIPMENT THAT WILL BE ABOVE GRADE AND VISIBLE FROM THE STREET

NOTE: IN THIS OPTION, THE PUMPING STATION STRUCTURES WOULD BE SIZED TO ACCOMMODATE EQUIPMENT REQUIRED TO MEET THE BUILDOUT FLOWS FOR PHASES 1-4. HOWEVER, AS INITIAL FLOWS FOR PHASES 1-3 ARE EXPECTED TO BE LOW, ONLY TWO SMALLER PUMPS (1 DUTY/1 STANDBY) WOULD BE INSTALLED INITIALLY. THESE PUMPS WOULD NEED TO BE OPERATED IN TANDEM ONCE PER DAY TO INCREASE FORCE MAIN VELOCITY TO FLUSH THE LINE. FOR PHASE 4, THE TWO SMALLER PUMPS WOULD BE REPLACED WITH 3 LARGER PUMPS.

MASSACHUSETTS ROUTE 28

LONG POND DRIVE

PS4 Design Alternative 3



Regulatory/Permitting Update

- SRF Intended Use Plan (#1 ranked project)
 - Principle Forgiveness (Tier 2 - 6.6 percent)
 - Bipartisan Infrastructure Law (BIL) General Supplemental Grant
 - SRF Application
- Cape Cod Commission 208 Consistency Review
 - Submitted 11/22/2022
 - Determined to be consistent for purposes of SRF Program
 - Final determination letter to be issued soon
- MassDEP Groundwater Discharge Permit
 - Requested information on history of groundwater elevations at the site
 - Requested information on incorporating wetlands and stream into groundwater model that was run in 2011
- Watershed Permits
 - Application process with public hearings
 - Must comply with Total Maximum Daily Load
 - 75% nitrogen removal each watershed within 20 years

