

MINUTES OF THE
CHANNEL ISLANDS BEACH COMMUNITY SERVICES DISTRICT
FACILITIES COMMITTEE MEETING, March 27, 2018

A. APPROVE THE FACILITIES COMMITTEE MEETING AGENDA

The Facilities Committee Meeting Agenda was approved and called to order at 4:07 PM. In attendance Director Marcus, Director Koesterer, General Manager, Akbar Alikhan, Clerk of the Board, Erika Davis, Office Manager, CJ Dillon and Deputy General Manager/ Operations Manager Pete Martinez.

B. SEWER LIFT STATION CONDITION ASSESSMENT RESULTS

Deputy General Manager/ Operations Manager Pete Martinez explained with a PowerPoint presentation the Sewer Lift Station Condition Assessment Results. Director Marcus and Director Koesterer asked questions. General Manager Alikhan and Deputy General Manager/ Operations Manager Pete Martinez answered the questions. General Manager Alikhan explained the proposed changes to the Capital Improvement Plan due to the Assessment Results.

C. ADVANCED METERING INFRASTRUCTURE (AMI) DEPLOYMENT OPTIONS

General Manager Alikhan discussed the AMI Deployment options using a PowerPoint presentation to illustrate key points. Both Director Marcus and Director Koesterer felt the key advantage was expeditious leak detection.

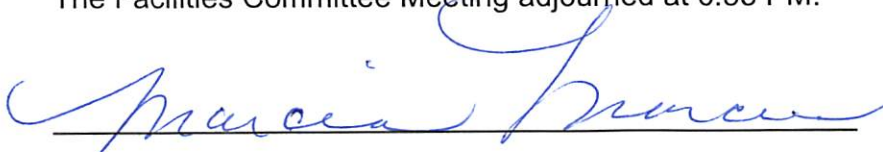
D. DISTRICT OFFICE AND YARD RE-DESIGN CONCEPT REVIEW

General Manager Alikhan presented the concept designs on PowerPoint. General Manager Alikhan explained that this was still a work in progress. Director Marcus recommended that a completed Concept Design be brought to the May 2018 Regular Board Meeting.

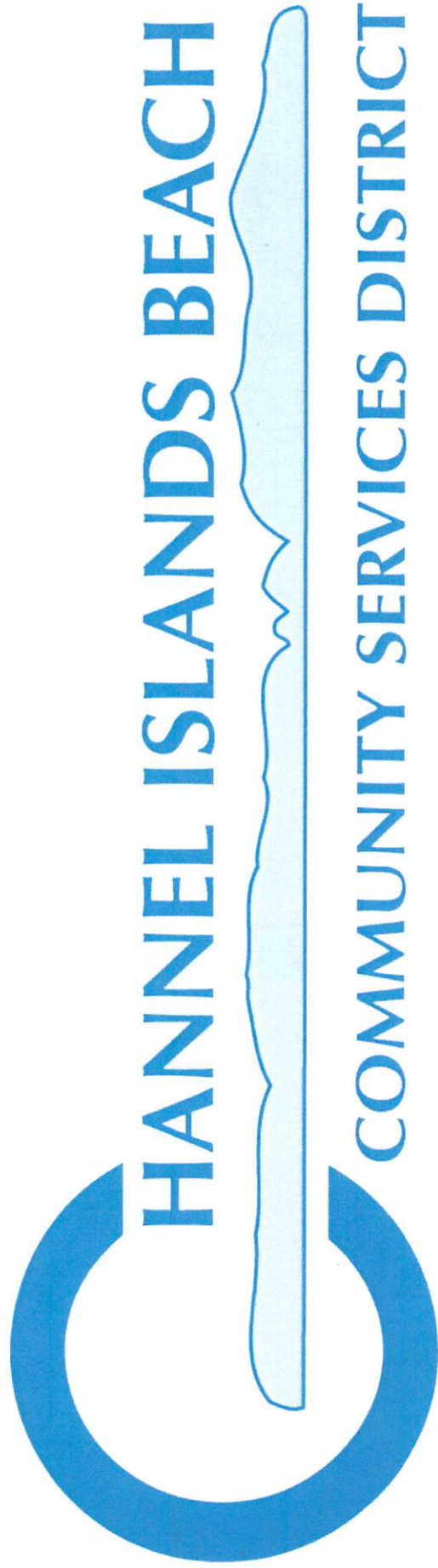
E. FLOOD & EARTHQUAKE INSURANCE COVERAGE

General Manager Alikhan stated that ACWA-JPIA now provides Flood & Earthquake Insurance through a different carrier. The proposal is to approve the Agreement for Earthquake and Flood Insurance Coverage. General Manager Alikhan said he would bring it to the April 10, 2018 Regular Board Meeting and if approved it would be effective beginning on April 15, 2018.

The Facilities Committee Meeting adjourned at 6:33 PM.



Marcia Marcus, Director



AMI Project Approach

MARCH 27, 2018 – FACILITIES COMMITTEE MEETING

AKBAR ALIKHAN, GENERAL MANAGER

3/27/2018

Background

- District maintains approx. 2,000 meters in the service area
- Read monthly by Operations staff
 - 3 days to read all meters + .5 days for re-reads
- Currently testing 10 AMI cellular meters, relying on AT&T towers

Available Technologies

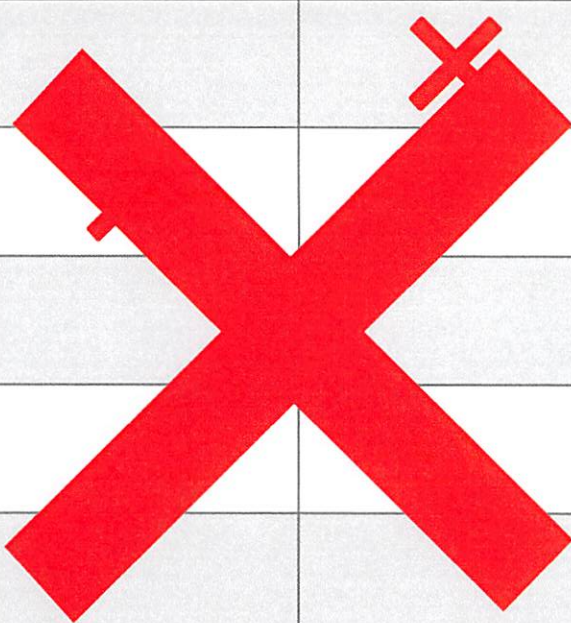

1. Manual Read (Status Quo)
2. Automatic Meter Reading (AMR)
3. Advanced Metering Infrastructure (AMI) – Fixed Base Network
4. Advanced Metering Infrastructure (AMI) – Cellular

Today's Goals

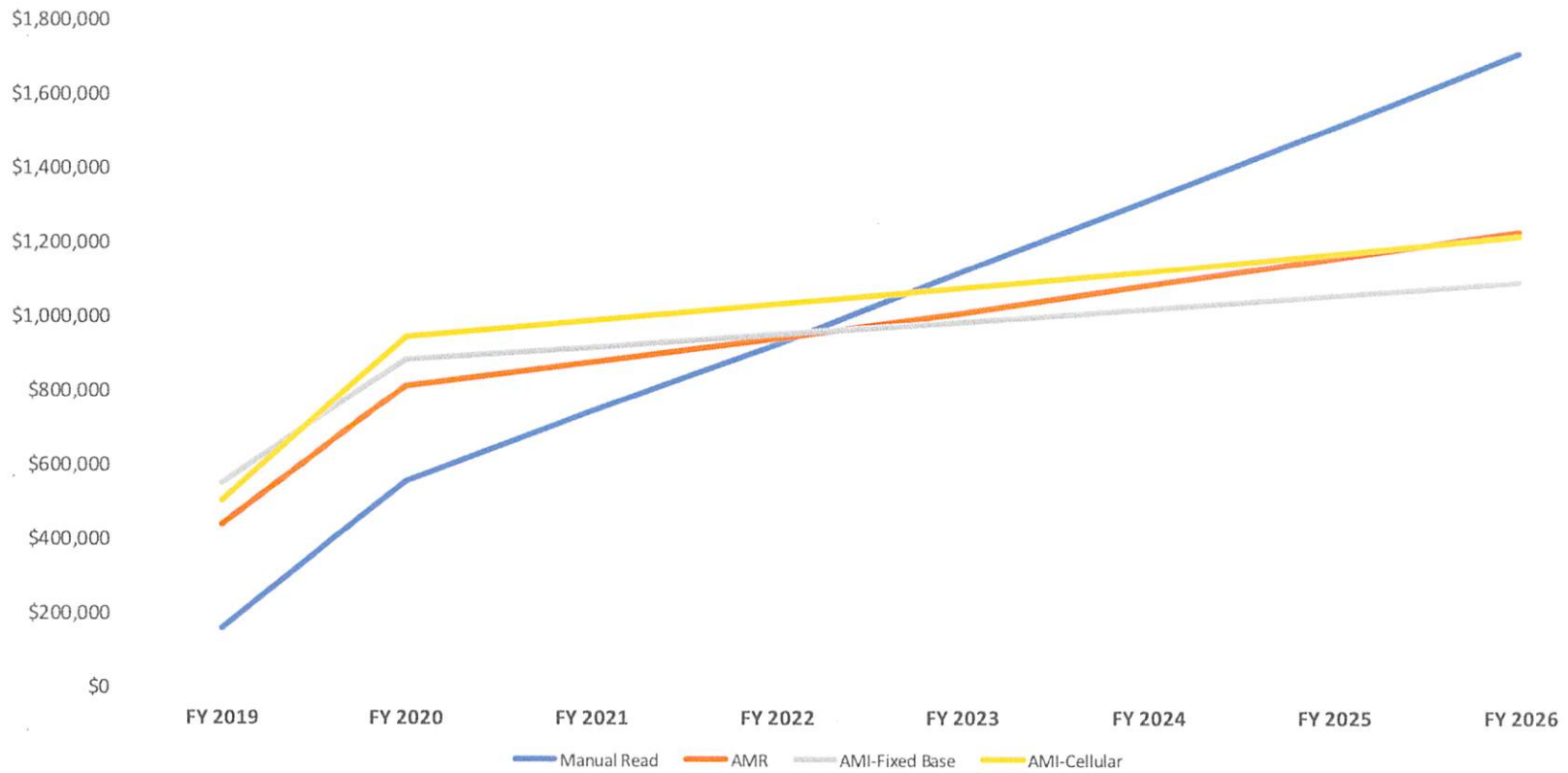


1. Which of the four technologies should the District pursue?
2. How should the project be phased-in? (e.g. full deployment, 2-year rollout, 4-year rollout)
3. Should Harbor meters be changed?

Summary of Features

Feature	Manual Read	AMR	AMI-Fixed Base	AMI-Cellular
Real-time usage available to customer and District			✓	✓
Meter reading time reduced / eliminated			✓	✓
Leak detection alarms and high usage notifications			✓	✓
Ease of installation / deployment				✓
Network connectivity for other systems (SCADA)				✓

Cumulative Metering Costs Comparison



AMI Technology Detail Comparison

Criterion	AMI-Fixed Base	AMI-Cellular
Demonstrated proof of concept	High up front capital costs doesn't allow District to test out system. Propagation study concluded technology will work.	Plug and play. Test pilot has demonstrated proof of concept, with 10/10 endpoints communicating with cell towers.
Guarantee of data transmission	Will only guarantee with two collector units. Only one needed for coverage.	Prop Study guarantees 99% transmission.
On-demand ping ability	Can ping meter in real-time to get a read.	Data can be anywhere from 0 – 24 hours old.
Assets maintained by District	Requires 40 ft antennae at District office (and site lease of 2 nd location if required)	No communication assets needed. Pay cell carrier for use of their infrastructure.
Increase signal strength for hard to reach endpoints	Can increase power wattage to endpoints that are having trouble communicating	No comparable feature
Physical meter size	iPerl meter may not fit in some District meter boxes	Badger meter is considerably smaller

Recommendation

- Pursue AMI-Cellular option

Rationale:

- Although Fixed-Base technology would likely work, Sensus is uncertain whether they can include legal language to provide relief to District if it doesn't work
- District is not best-suited to maintain communication assets.
 - Larger agencies with dedicated staff for this purpose are able to maintain communication assets
 - District yard/office will impact siting of antennae.
 - Removal of existing antennae may be required as part of zone compliance effort
- iPerl (Sensus) Meters may be too large for some meter boxes in the District.

Today's Goals



1. Which of the four technologies should the District pursue? **AMI Cellular**
2. How should the project be phased-in? (e.g. full deployment, 2-year rollout, 4-year rollout)
3. Should Harbor meters be changed?

Project Phasing

Issue	Full Deployment	Phased-In
Administering parallel systems	Full changeover to new meters creates uniformity among accounts for importing billing data and handling customer calls	Mix of old/new meters requires staff to run separate processes for importing billing data and disparity of available data on calls
Higher reported usage with new meters	Entire service area will report slightly higher usage by the same factor.	Areas with new meters may report higher usage than those with old meters
Capital Outlay	High up front costs, which would likely require short-term SRF 1.5% Loan	Manageable costs if phased in over 4 years with use of reserves
Long-term realized savings	Earlier the meters are installed the better the long-term ROI	Delayed installation means slightly less long-term ROI
Installation costs	Likely savings on per-meter installation costs given volume and one-time mobilization	Likely higher per-meter installation costs given lower volume and repeated mobilization
Project execution	Easier for staff to complete one project. Overseeing install of 100 meters is equal work to overseeing install of 2,000.	Staff would treat each year of the phase-in as its own distinct project.

Today's Goals



1. Which of the four technologies should the District pursue? **AMI Cellular**
2. How should the project be phased-in? (e.g. full deployment, 2-year rollout, 4-year rollout)
Full Deployment
3. Should Harbor meters be changed?

Harbor Meter Inventory

Meter Size	Quantity	Cost/meter	Total Cost
3/4"	7	\$460	\$3,220
1"	23	\$552	\$12,705
1 1/2"	14	\$1,642	\$22,992
2"	27	\$1,825	\$49,275
3"	15	\$2,224	\$33,360
4"	9	\$2,791	\$25,119
	95		\$146,671

- Larger meters have higher potential for greater water loss when leaks occur
- Higher rate of customer portal adoption by commercial users
- Customer access features have been requested by Harbor customers

Today's Goals



1. Which of the four technologies should the District pursue? **AMI Cellular**
2. How should the project be phased-in? (e.g. full deployment, 2-year rollout, 4-year rollout)
Full Deployment
3. Should Harbor meters be changed? **Yes**

Project Costs

Meter Component	Cost
Meter – Fire/Rated, UL Listed	\$210
Cellular Endpoint	\$150
Installation	\$60
Fiberlite Lid	\$40
	\$460

Item	Price	Quantity	Total Cost
Residential Meters	\$460	1,877	\$863,420
Harbor Meters		95	\$146,671
Total Estimated Costs			\$1,010,091

Loan Structuring

- Propose initial outlay of \$200K, split evenly between Water/Sewer Enterprises
- Remaining projects costs of approximately \$750K paid by 1% SRF Loan, over 8-year term
- Approximately \$50K from both Water and Sewer Enterprises annually to repay loan

Next Steps

Milestone	Date
Facilities Committee	27-Mar
Inventory of meter data	April
RFP Development	April
Final Proposed CIP Budget	10-Apr
Finalize RFP	1-May
Authorization to Bid	8-May
RFP Out to Bid	9-May
Deadline to Submit	31-May
Bid selection	4-Jun
Award	12-Jun
Outreach Campaign	July
Delivery/configuration	10-Aug
Award	12-Jun
Outreach Campaign	July
Installation	August through October

Manual Reading

Manual Read (Status Quo)

Description:

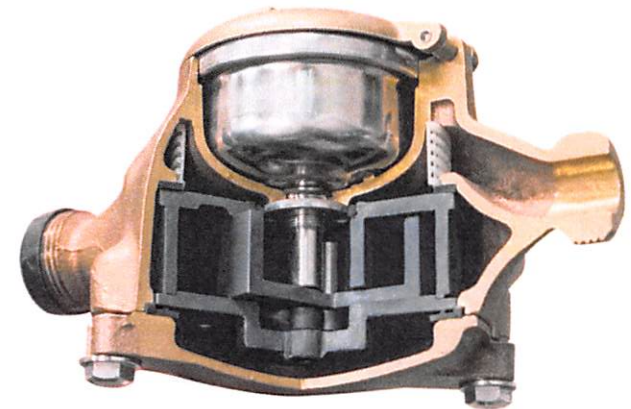
- Staff physically reads meters on a monthly basis using handheld device

Pros:

- Does not require significant capital investment in the short term, continue to replace meters as they fail
- Does not require staff time to make operational or administrative changes

Cons:

- Most costly option from FY 2023 and onward
- Unable to identify leaks until after billing cycle / Customer unaware of usage



AMR

Automatic Meter Reading (AMR)

Description:

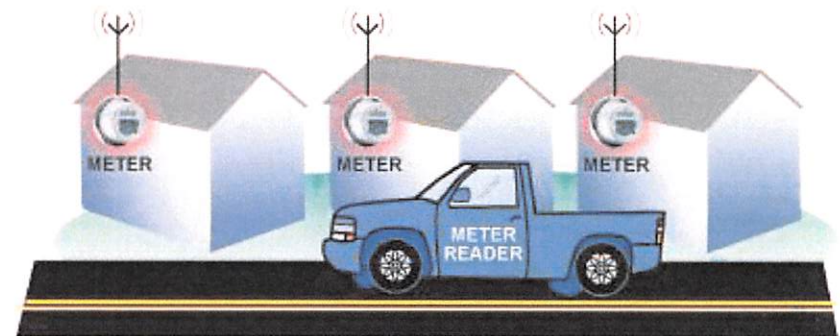
- Requires replacing most District meters and installing communication node that sits below the meter box lid
- District vehicle drives with receiver device drives down the street; node transmits meter data to receiver as vehicle drives down the street

Pros:

- Significantly reduces staff spent collecting meter data

Cons:

- Still need to perform manual reads for re-reads and exceptions
- Second most costly option from FY 2026 and onward
- Unable to identify leaks until after billing cycle / Customer unaware of usage



AMI – Fixed Base

Advanced Metering Infrastructure (AMI) – Fixed Base

Description:

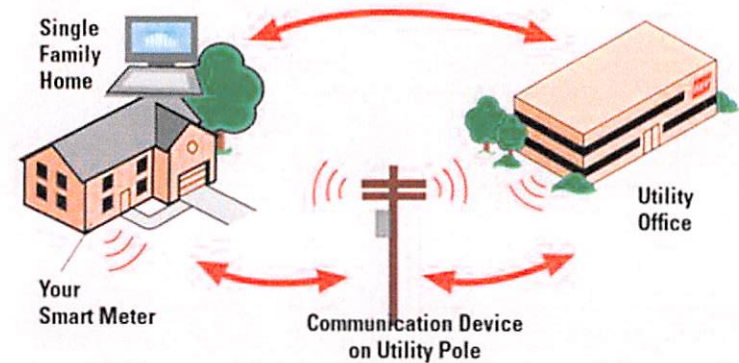
- Requires replacing most District meters and installing communication node with cap that sits above meter box lid
- Node communicates with data collector unit owned and maintained by the District (establishes a “fixed-base network” for District equipment) to transmit meter data

Pros:

- Produces real-time usage data that can be accessed by District and customer
- Lowest cost option from FY 2023 and beyond
- District can use fixed base network for other systems, such as sewer system SCADA

Cons:

- High upfront costs to establish network (can be smoothed by vendor negotiation)
- District responsible for maintaining/troubleshooting communication issues with District-owned network



AMI - Cellular

Advanced Metering Infrastructure – Cellular

Description:

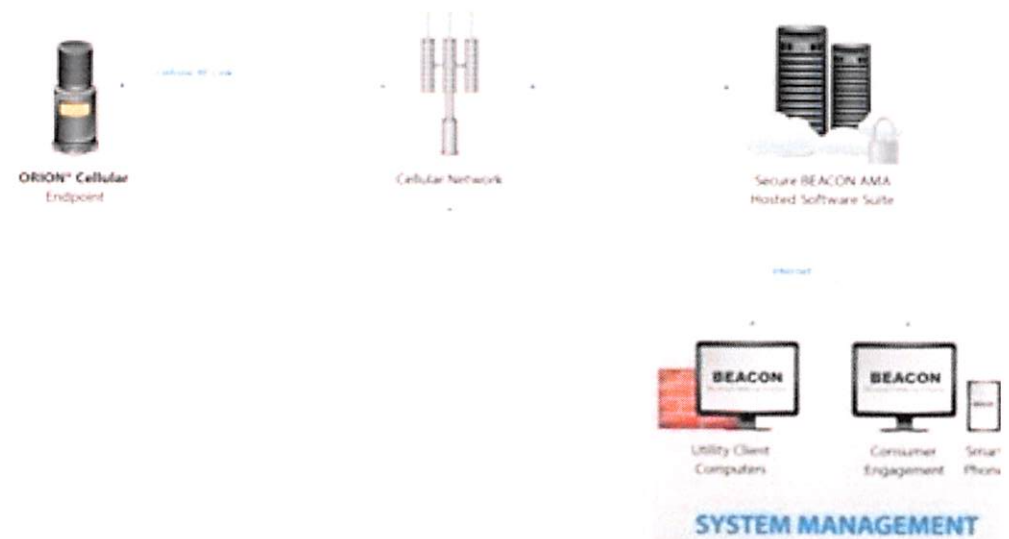
- Requires replacing most District meters and installing communication node with cap that sits above meter box lid
- Node communicates with cell tower owned and maintained by AT&T

Pros:

- Produces real-time usage data that can be accessed by District and customer
- Costs break even with status quo by FY 2023
- No maintenance or reliance on District-owned network. Relies on cellular provider for data transmission
- Easily deployed, “plug and play”

Cons:

- Long-term reliance on cellular carrier, with ongoing data transmission costs
- Highest cost option between FY 2020 and FY 2023





Sewer Station Condition Assessment

MARCH 27, 2018 – FACILITIES COMMITTEE MEETING

PETE MARTINEZ, DEPUTY GM / OPERATIONS MANAGER

3/27/2018

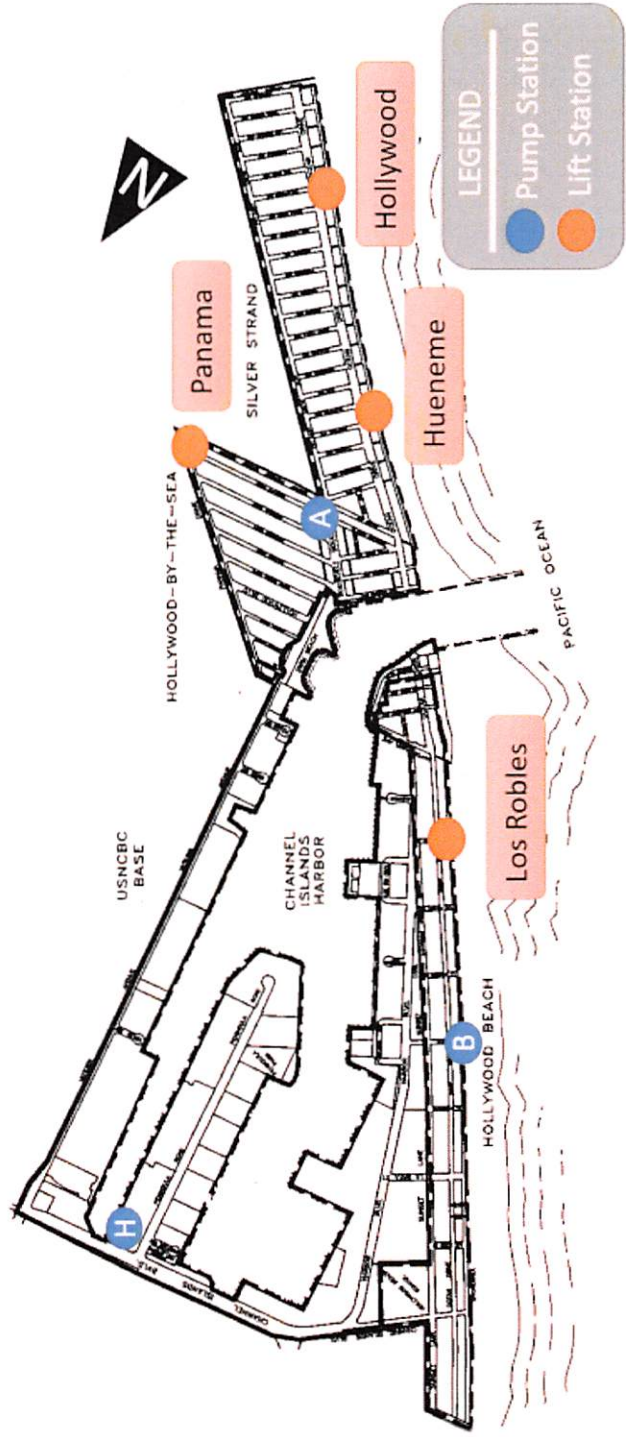
Background

- District owns and maintains 7 sewer stations in service area
 - 4 lift stations
 - 3 pump stations

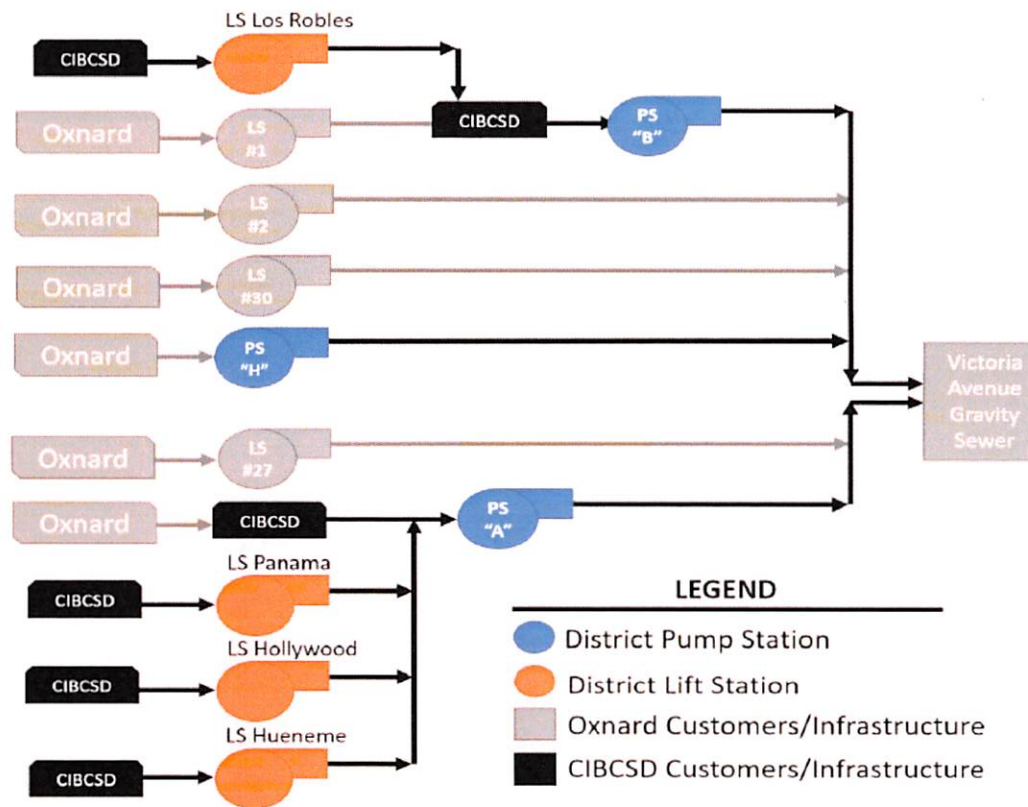
ID	Station Type	Year Built	No. of Pumps
Pump Station A	Dry Vault	1972	2
Pump Station B	Dry Vault	1972	2
Pump Station H	Dry Vault	1967	2
LS Los Robles	Submersible	1997	2
LS Hueneme	Submersible	1993	2
LS Hollywood	Submersible	1995	2
LS Panama	Submersible	1997	2

Sewer Station Locations

STATION LOCATION



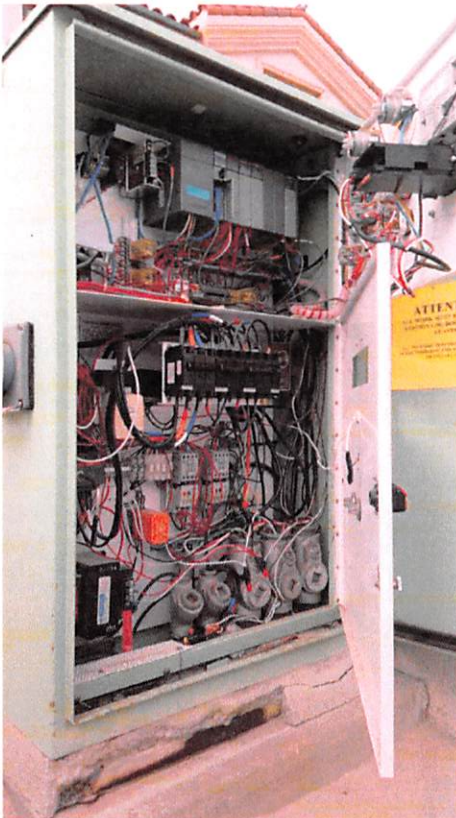
District Flow Schematic



Why Perform Sewer Station Assessments

- Support Planning
 - To provide a prioritized list of projects
 - Project costs
 - Incorporation into Capital Improvement Plan (CIP)
- Provide Technical Expertise
 - Identify improvements to the facilities that will improve ease of operation
 - Improved remote monitoring, control, and other similar improvements
- Comprehensive Approach
 - Electrical/Instrumentation
 - Structural
 - Mechanical

Condition Assessment



The condition assessment took place over two days, on February 21 and 22, 2018.

Type of Improvements Identified

- Mechanical
- Electrical/Instrumentation
- Structural

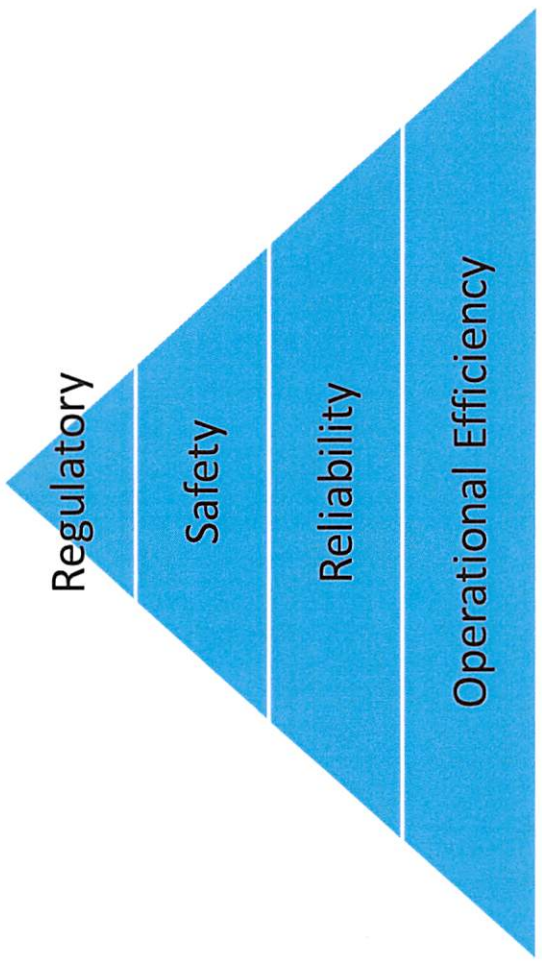
Recommendation

- Costs associated with the inspection results

Facility	Elect/Inst	Mech/Struct	Total
PS A	\$94,800	\$14,600	\$109,400
PS B	\$90,300	\$27,700	\$118,000
PS H	\$69,400	\$13,400	\$82,800
LS Los Robles	\$74,900	\$26,700	\$101,600
LS Panama	\$89,200	\$7,700	\$96,900
LS Hueneme	\$47,400	\$10,600	\$58,000
LS Hollywood	\$94,800	\$7,500	\$102,300
	\$560,800	\$108,200	\$669,000

Prioritization System

1. Regulatory
2. Safety
3. Reliability
4. Operational Efficiency

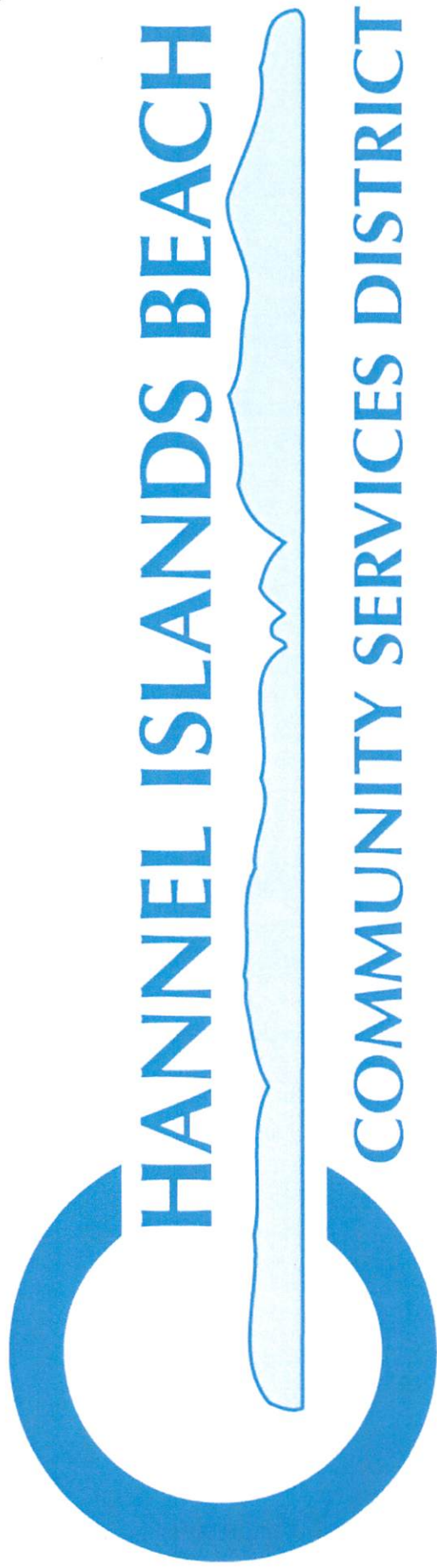


What This Means to the District's 5-Year CIP

1. Postponing sewer relining of gravity sewers to FY 2020
2. Addressing the identified regulatory compliance issues during FY 2019
3. Addressing the identified safety issues during FY 2019
4. Increasing CCTV inspection for FY 2019

Proposed Changes to CIP

	Preliminary	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1	I&I Reduction - Gravity Main Improvements	\$360,000	\$420,000	\$0	\$0	\$0
2	Lift Station and Pump Rehabilitation	\$0	\$60,000	\$0	\$60,000	\$0
5	Hydrogen Sulfide Reduction	\$0	\$100,000	\$100,000	\$0	\$0
6	Pump Station Structural Improvements	\$0	\$0	\$200,000	\$0	\$0
7	Oxnard Wastewater Plant Allocation	\$50,000	\$100,000	\$100,000	\$100,000	\$100,000
10	Well Rehabilitation	\$10,000	\$0	\$0	\$0	\$0
12	SCADA Improvements	\$150,000	\$0	\$0	\$0	\$0
13	Smart Meter Deployment	\$250,000	\$100,000	\$100,000	\$100,000	\$100,000
	Water	\$460,000	\$220,000	\$335,000	\$250,000	\$1,050,000
	Sewer	\$760,000	\$805,000	\$595,000	\$210,000	\$150,000
	Total	\$1,220,000	\$1,025,000	\$930,000	\$460,000	\$1,200,000
	Revised	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1	I&I Reduction - Gravity Main Improvements	\$0	\$420,000	\$0	\$0	\$250,000
2	Lift Station and Pump Rehabilitation	\$320,000	\$100,000	\$200,000	\$60,000	\$0
5	Hydrogen Sulfide Reduction	\$0	\$100,000	\$100,000	\$0	\$0
6	Pump Station Structural Improvements	\$0	\$0	\$0	\$0	\$0
7	Oxnard Wastewater Plant Allocation	\$50,000	\$100,000	\$100,000	\$100,000	\$100,000
10	Well Rehabilitation	\$10,000	\$0	\$0	\$0	\$0
12	SCADA Improvements	\$150,000	\$0	\$0	\$0	\$0
13	Smart Meter Deployment	\$250,000	\$100,000	\$100,000	\$100,000	\$100,000
	Water	\$460,000	\$220,000	\$335,000	\$250,000	\$1,050,000
	Sewer	\$760,000	\$845,000	\$525,000	\$210,000	\$470,000
	Total	\$1,220,000	\$1,065,000	\$860,000	\$460,000	\$1,520,000



HANNEL ISLANDS BEACH
COMMUNITY SERVICES DISTRICT

District Office and Yard Redesign

MARCH 27, 2018 – FACILITIES COMMITTEE MEETING

AKBAR ALIKHAN, GENERAL MANAGER

3/27/2018

Background

- At Jan 9 Board meeting, hired Architects Orange to produce concept design and perform space planning
- Scope included 2 concepts
 - Remodel/renovate existing structures
 - Build new structures
- Architect performed site walk and took measurements of property
- Staff provided architect with “program” of District space and feature needs at start of project

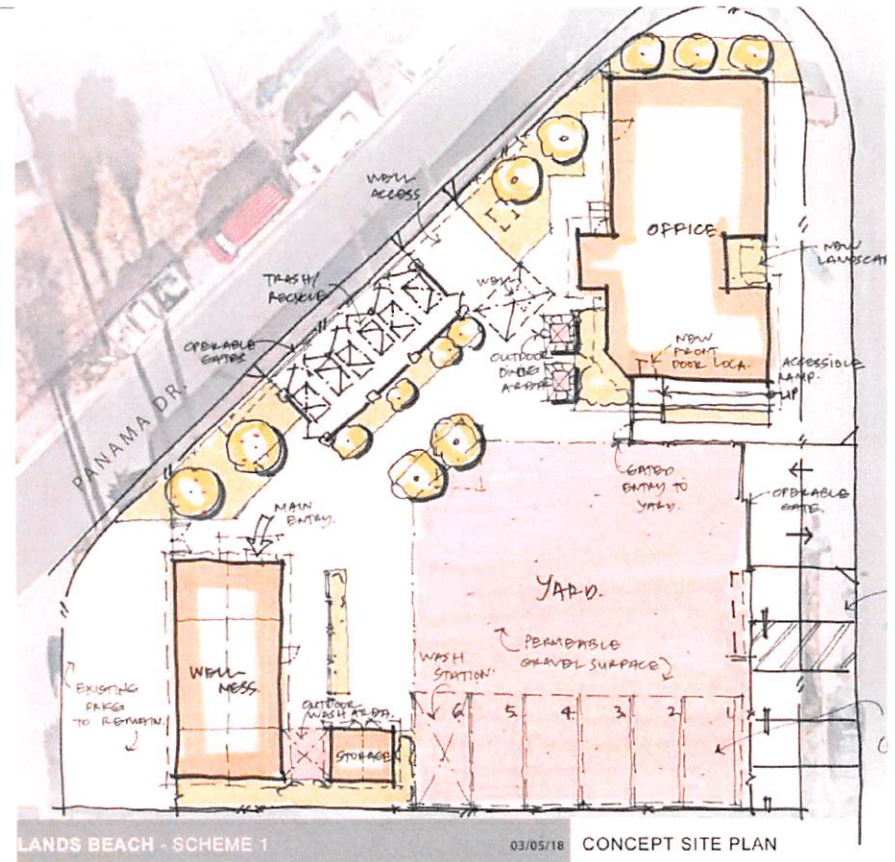
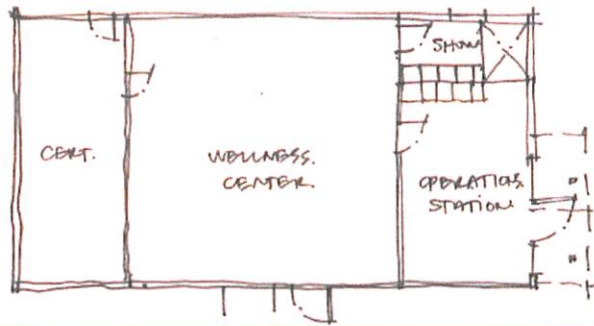
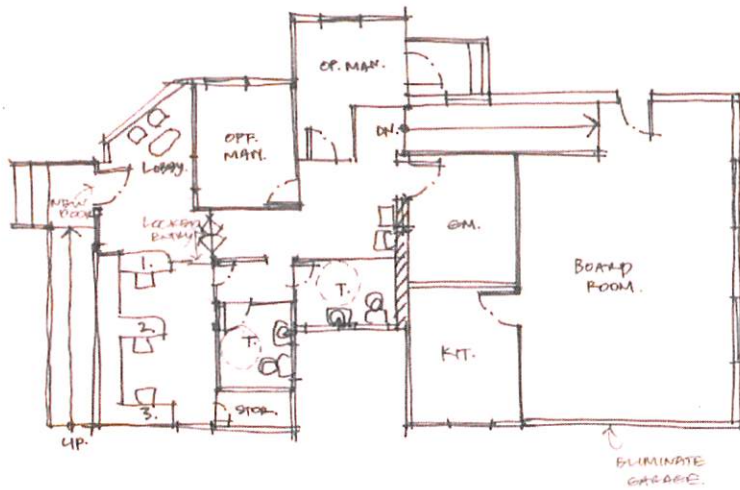
Interior Requirements

1. ADA Compliance for entrance and bathrooms and Boardroom
2. Operations and admin staff under one roof
3. Walk up service to both CSR's
4. Oversight of CSR area by Office Manager
5. Employee wellness area
6. True office area for Operations Staff
7. Improved dimensions for multipurpose room

Exterior Requirements

1. Primary entry/exit must remain on Santa Monica Drive
2. Preserve well access
3. EJ access to 3-yard bins
4. Eliminate random storage sheds in yard area
5. Wash rack for vehicles, oil/water separation
6. Protection for vehicles and large equipment (canopy)
7. Provide possibility of solar array on vehicle canopy
8. Open yard design for emergency response and maneuverability
9. HHW drop-off and storage area
10. Public access to green waste and recycle bins
11. Motorized gate access

Round 1 – Renovation (Scheme 1)

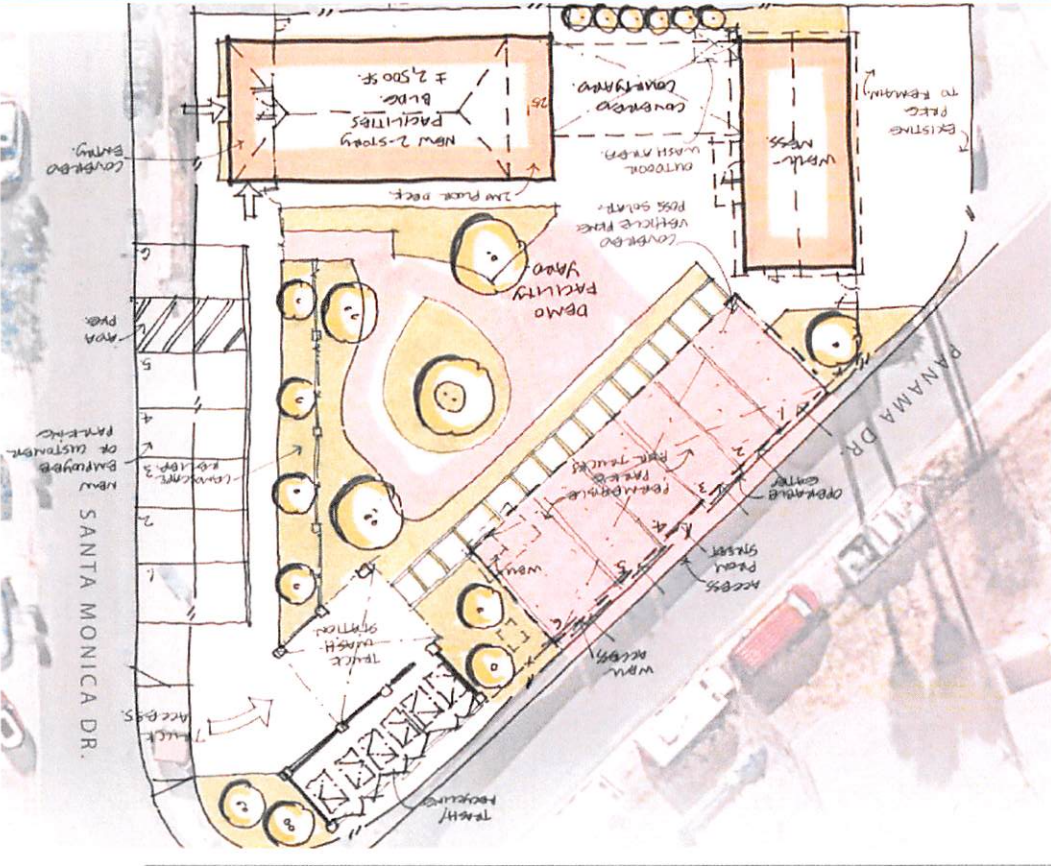
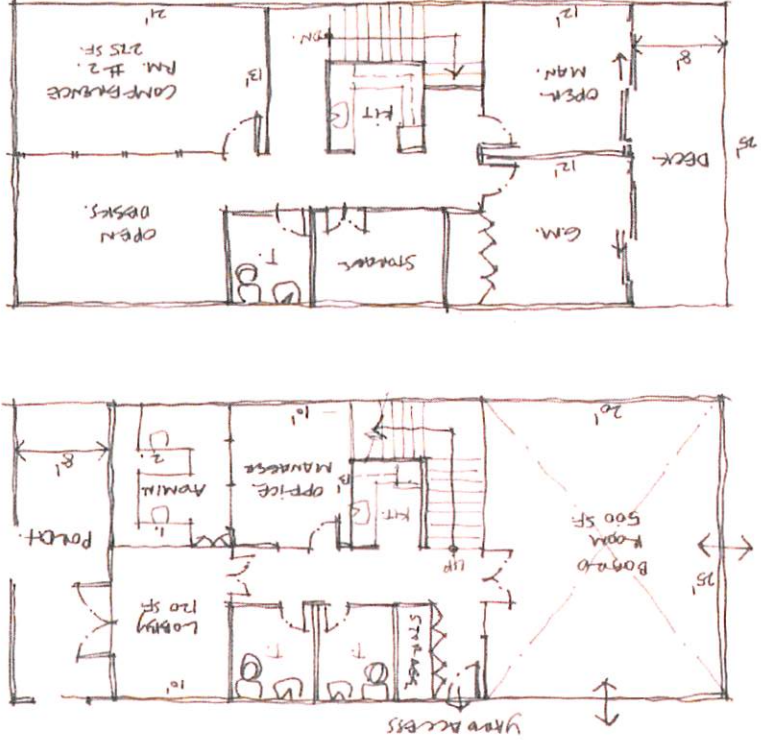


LANDS BEACH - SCHEME 1

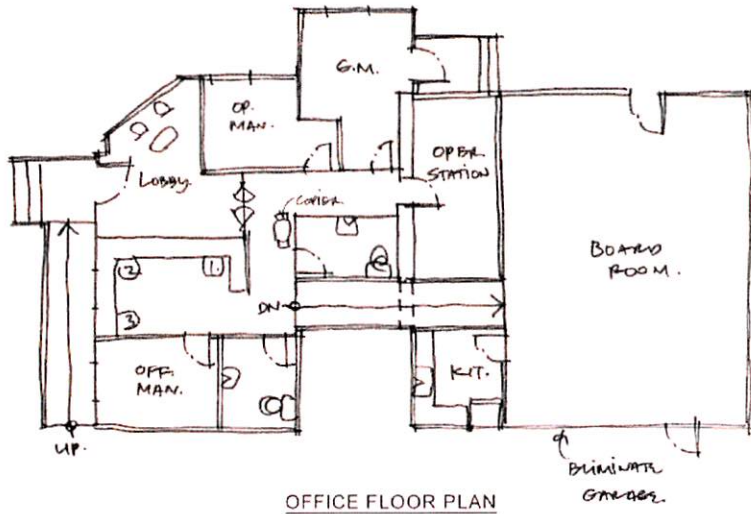
03/05/18

CONCEPT SITE PLAN

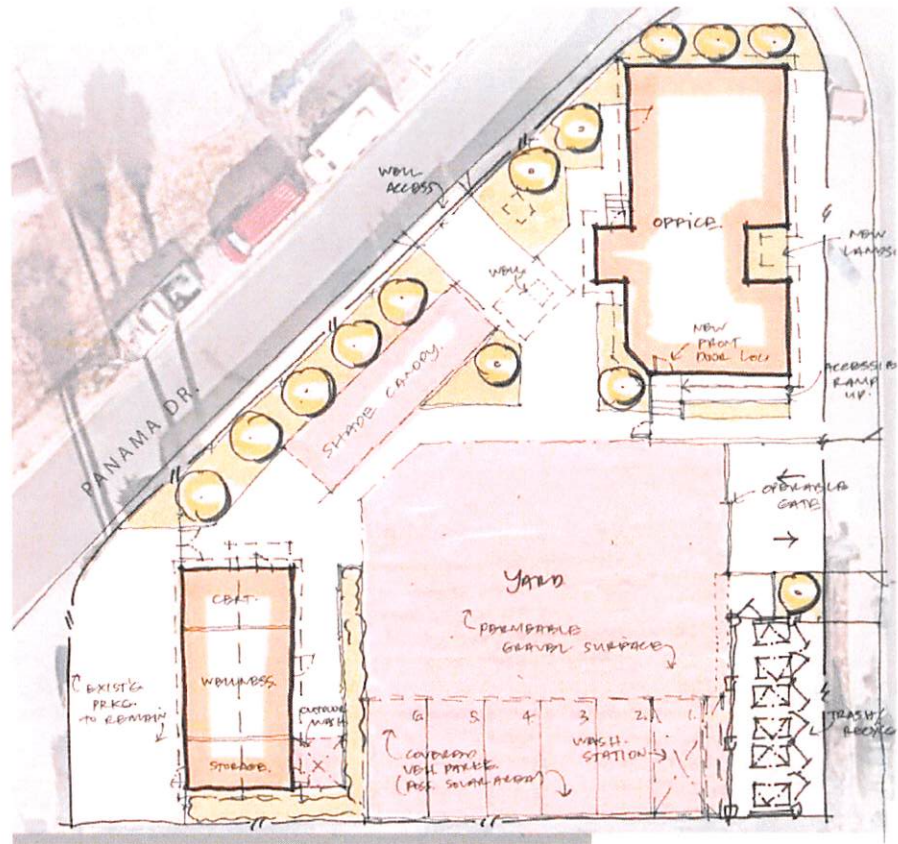
Round 1 – Rebuild (Scheme 2)



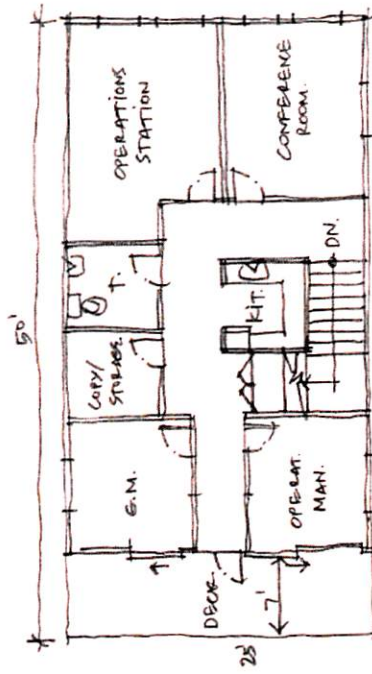
Round 2 – Renovate (Scheme 3)



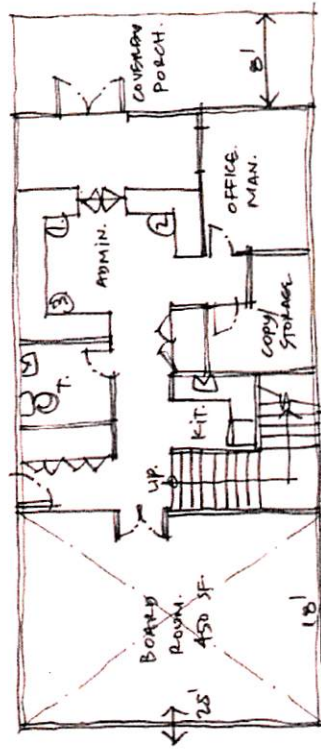
OFFICE FLOOR PLAN



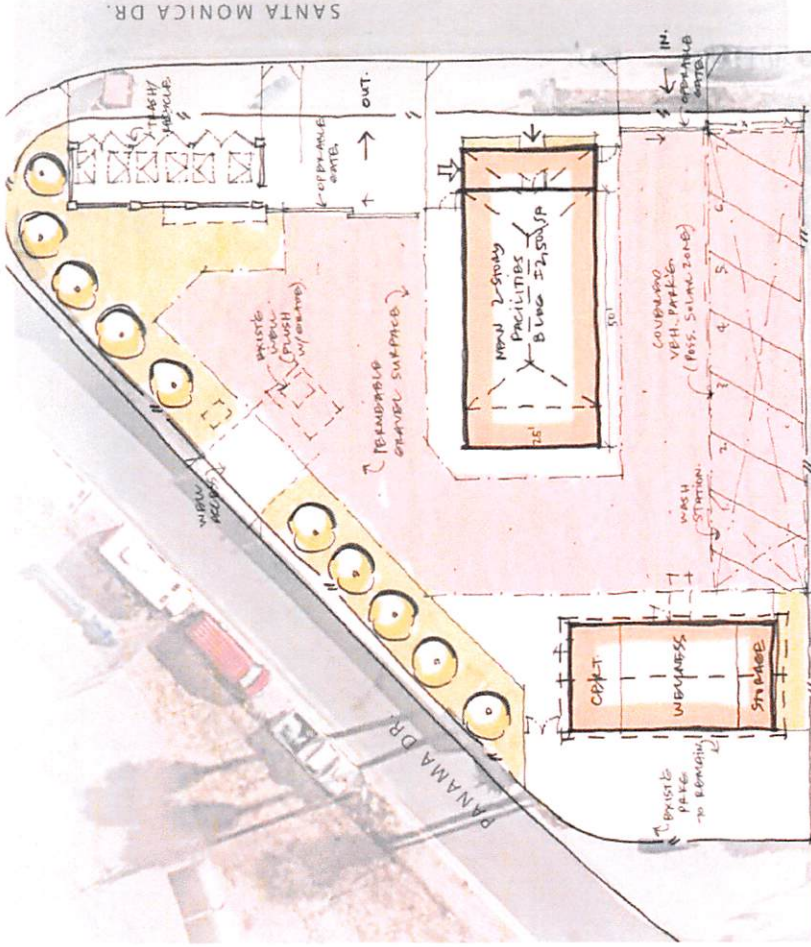
Round 2 – Rebuild (Scheme 4)



NEW FACILITIES BLDG. - 2ND FLOOR PLAN



NEW FACILITIES BLDG. - 1ST FLOOR PLAN



Realizations

- Back of the building should face Panama
 - Has little value for entry/exit
 - Maximizes yard space
- If we remodel/renovate, project needs to include an addition
 - Fundamentally, square footage is an issue
 - Could expand towards well or push front out westward
- If sheds are eliminated, the rear structure will be needed entirely for storage

Next Steps

- Provide feedback to architect
- Develop final design concept(s) and cost estimates
- Present concepts to full Board and receive direction
- Proceed with listing of District properties for sale