



TOWN OF TRURO NEW PUBLIC WORKS FACILITY



Project Update
September 4, 2025

PROJECT HIGHLIGHTS

COMMUNITY BENEFITS OF THE DPW & PWS WELL PROJECT

- ❖ New Facility for DPW Operations (various design scenarios)
 - To Meet Town's Goals as a Stretch Energy Community
- ❖ New Salt Shed for DPW Operations
- ❖ New Generator to Support DPW Operations
- ❖ Stormwater Drainage System
- ❖ Geothermal Well Field
- ❖ New Drinking Well for DPW and Town Hall
- ❖ New Septic System for DPW and Town Hall

FULL SCHEDULE

WE ARE HERE



PHASE	Study	Concept Design	Schematic Design	REVIEW PERIOD	Design Development	Construction Documents	Bidding
Start Date	✓	✓	March 1, 2025	✓	End of July 2025	Early November 2025	Mid February 2026
Deadline	✓	✓	May 30, 2025	✓	End of October 2025	End of January 2026	

- Review Bids
- Warrant Recommendation
- Town Meeting; May 2
- Election; May X

SINCE LAST AD HOC MEETING; JULY 31ST

PROJECT UPDATE

- Reengage with Cape Light Compact regarding Utility Incentives
- Progress on PWS Well; Discussions with DEP & Driller
- Progress on Fire Protection Cistern and Pump Room Design
- Progress on Coordinating Building Systems, Structural, and Industrial Equipment
- Follow up with Industrial Equipment Team and Mechanics / Shop Personnel
- Progress on Coordinating Industrial Equipment Utilities
- Progress on Laying Out Geothermal Wellfield
- Site Plan Review w/ Users

COMMITTEE Q & A

RESPONSES TO COMMITTEE Qs:

Recommended Milestones for Ad Hoc Committee

- Advocacy & Education Outreach - presentations, flyers, display boards, etc.
 - W&S can help provide graphics, info, etc.

Electrical load and solar production potential for Energy Committee analysis

- Annual Electrical Load:
 - 61,000 kWh (HVAC)
 - _____ kWh (industrial equipment)
- Annual PV Production:
 - See snippet to the right from May Ad Hoc Committee Project Update

SOLAR PHOTOVOLTAIC (PV) SYSTEM SUMMARY				
	SYSTEM A	SYSTEM B	SYSTEM C	NOTES
MODULE QTY	150±	150±	48±	348±
MODULE POWER	550 WATT	550 WATT	550 WATT	---
DC NAMEPLATE	82.5± KW DC	82.5± KW DC	26.4± KW DC	191.4± KW DC (TOTAL)
INVERTER QTY	2	2	1	---
INVERTER RATING	25 KW & 36 KW	25 KW & 36 KW	20 KW	---
AC NAMEPLATE	61± KW AC	61± KW AC	20± KW AC	142± KW AC (TOTAL)
SYSTEM AZIMUTH	241°±	61°±	61°± / 241°±	BLDG. ORIENTATION
SYSTEM TILT	1/2° / 1'-0"	1/2° / 1'-0"	3° / 1'-0" & 1/2° / 1'-0"	FLUSH (ROOF PITCH)
RACKING	RAIL/CLAMPED	RAIL/CLAMPED	RAIL/CLAMPED	---
ENERGY PRODUCTION	±90 - ±110 MWH/YR	±85 - ±105 MWH/YR	±25 - ±35 MWH/YR	±200 - ±250 MWH/YR

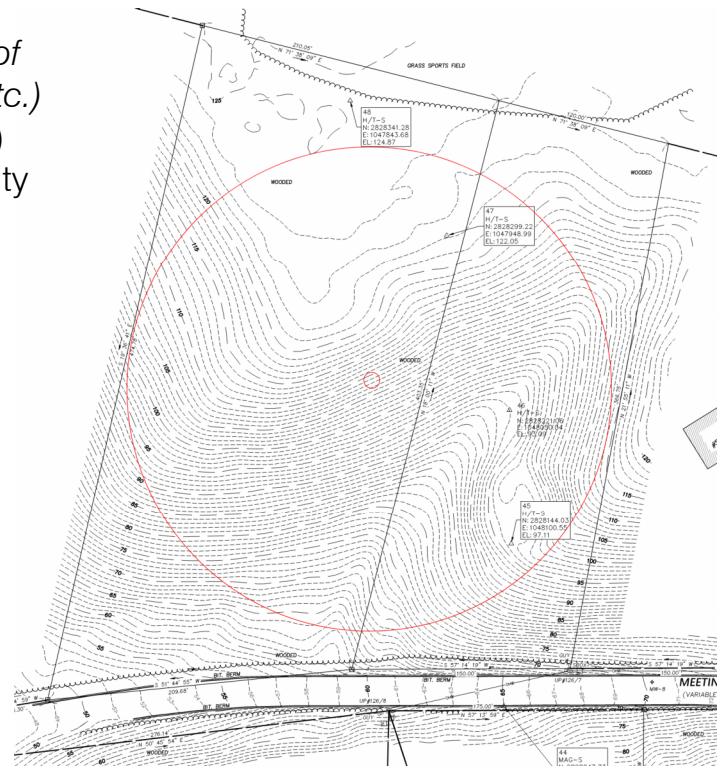
200 mWh = 200,000 kWh

COMMITTEE Q & A

RESPONSES TO COMMITTEE Qs:

Status of the proposed well for Town Hall Hill coming from Trust property and of the process (development costs, lease, drilling, sampling, piping to the site etc.)

- PWS Well & distribution costs: \$420k placeholder (treatment needs TBD)
 - For Protection Radius to stay within parcels, the well has a capacity of +/- 2,500 gpd at 2 gallons/minute
- Potential recommendation: a second, non-potable well for FP cistern
 - In lieu of tanker trucks refilling the 27,000 gallon cistern
 - \$900/6,000 gallon tanker x 5 tankers = \$4,500 a session
 - Could also support wash operations, hose bibs, and toilets (reducing domestic, potable water demand on the PWS well)
 - An additional \$100-150k
- Lease: license agreement 1-pager for design/drilling; easement TBD
- Drilling: awaiting driller quote; asap, simultaneously with WS 13
- Sampling: following the drilling
- WS 13 Application (review could take up to 72 days)
- WS 15 Application to follow asap after sample evaluation report (review could take up to 72 days)
- Once permitting completed/approved, finalize distribution design



COMMITTEE Q & A

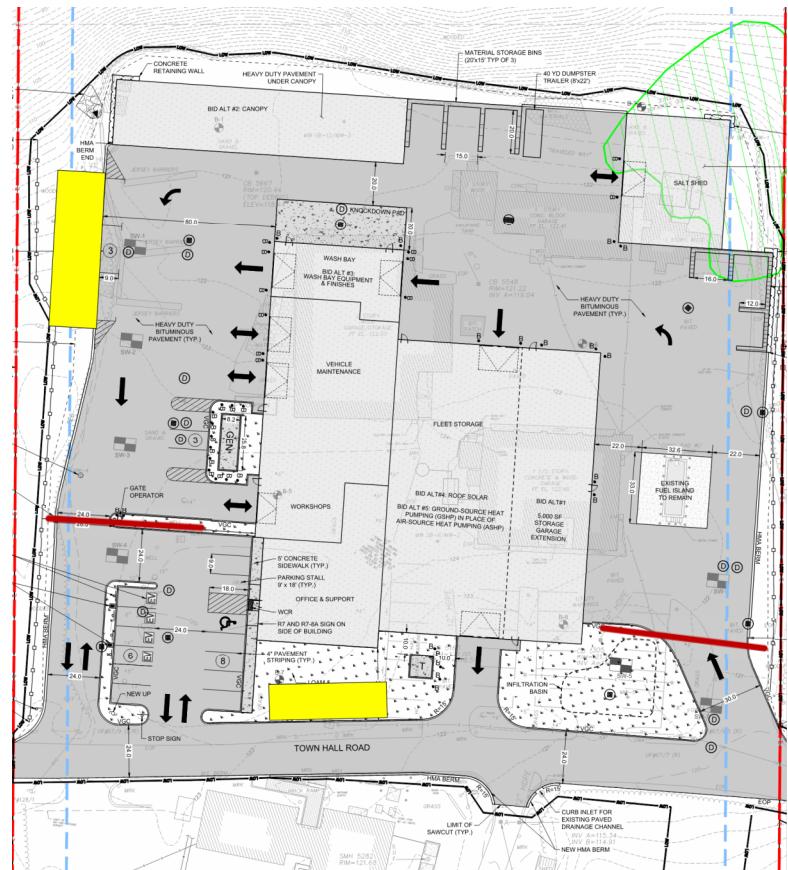
RESPONSES TO COMMITTEE Qs:

Exterior site plan overall, pros and cons to include parking, landscaping, fencing and any proposed changes to what's been presented.

- Current site design includes: parking, fencing, security gates, grass frontage (with stormwater infiltration basin)
 - Additional parking recommendation (shown yellow)
 - Landscaping / plantings recommended along Town Hall Road

Radiant heat scope – all covered space? Cost savings in reduced radiant?

- Current scope: only fleet maintenance
 - Some towns have asked for it at knock-down pad, but not in current design
- Efficient performance given space & combo with GSHPs
 - Heating the air not efficient with the large volume and garage door openings



COSTS ASSOCIATED WITH OUTDOOR STORAGE

BOURNE DPW'S
STORAGE GARAGE



COST CRITERIA

- Additional Fleet Maintenance Costs
- Fleet Life Expectancy Reduction Costs
- Non-Productive Labor Costs
- Engine Block Heater Usage Costs
- Environmental Impacts Cost
- Employee Safety Costs
- Backlog in Preventative Maintenance



VEHICLES STORED OUTDOOR

TRURO DPW'S FLEET INVENTORY

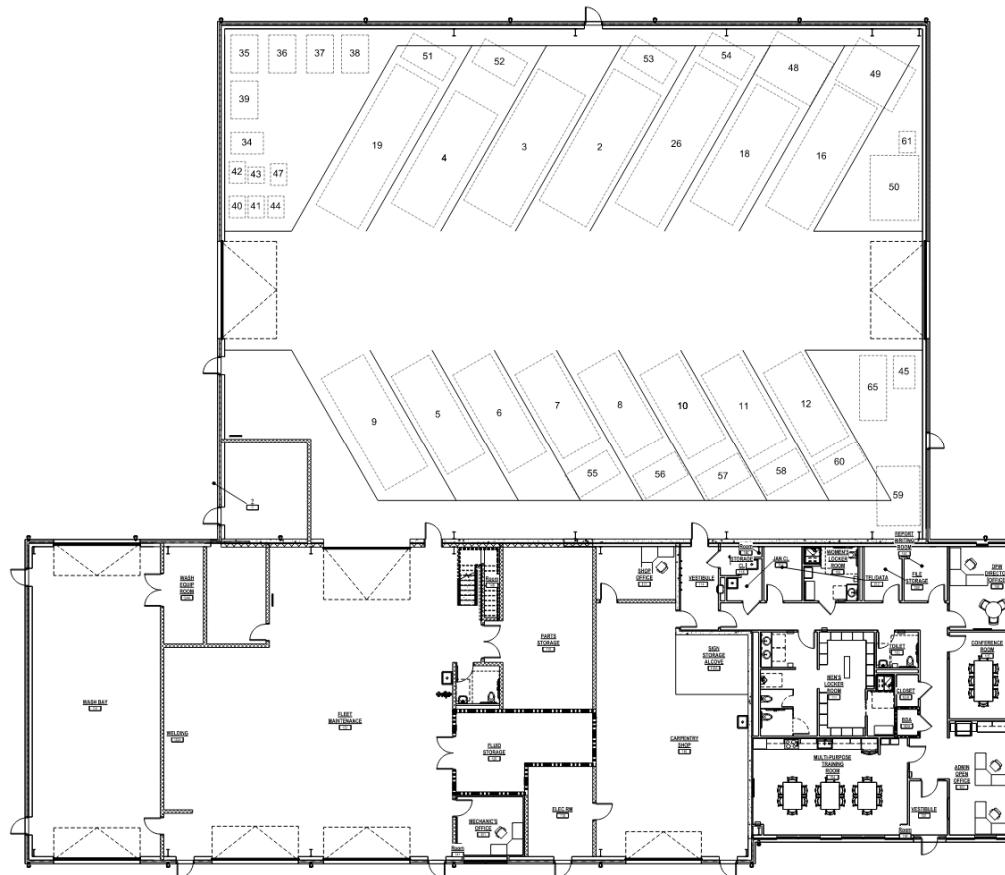
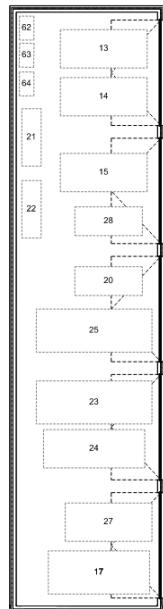
WSE ID #	TOWN ID #	DIVISION	MODEL TYPE	MAKE / MODEL
2		DPW	TRACTOR	PETERBILT
3		DPW	TRUCK	INTERNATIONAL 7400
4		DPW	DUMP TRUCK	INTERNATIONAL 7400
5	T-3	DPW	PICK UP TRUCK	FORD F450
6		DPW	DUMP TRUCK	FORD F450
7	T-6	DPW	PICK UP	FORD F350
8	S-1	DPW	PICK UP	FORD F350
9		DPW	DUMP TRUCK	
10	T-8	DPW	PICK UP	FORD F-350
11	T-4	DPW	PICK UP	FORD F350
12	T-2	DPW	PICK UP	FORD F350
13	T-9	DPW	PICK UP	FORD F350
14		DPW	PICK UP	FORD F350
15		DPW	PICK UP	
16		DPW	SWEEPER	ELGIN
17		DPW	EXCAVATOR	JOHN DEERE 130G
18		DPW	LOADER	JOHN DEERE
19		DPW	LIFT	JLG 600S
20		DPW	GENERATOR BOX TRAILER	
21		DPW	GENERATOR TRAILER	
22		DPW	WOOD CHIPPER	BANDIT
23		DPW	TRAILER	TIMpte
24		DPW	TRAILER	CAM
25		DPW	TRAILER	KAUFMAN
26		DPW	TRAILER	INTERSTATE
27		DPW	TRAILER	BENCE
28		DPW	TRAILER	

WSE ID #	TOWN ID #	DIVISION	MODEL TYPE	MAKE / MODEL
34		DPW	RIDE MOWER	JOHN DEERE
35		DPW	EQUIPMENT	HYSTER
36		DPW	SKID STEER	JOHN DEERE 323E
37		DPW	RIDE MOWER	TORO
38		DPW	RIDE MOWER	TORO
39		DPW	RIDE MOWER	BOB CAT
41		DPW	PUSH MOWER	
42		DPW	PAINT MACHINE	
43		DPW	POWER WASHER	
44		DPW	WALK BEHIND SAW	EDCO
45		DPW	LIFT	JLG
47		DPW	MOWER	TIGER
48		DPW	WING PLOW	
49		DPW	WING PLOW	
50		DPW	WING PLOW	
51		DPW	STANDARD PLOW	
52		DPW	STANDARD PLOW	
53		DPW	STANDARD PLOW	
54		DPW	STANDARD PLOW	
55		DPW	STANDARD PLOW	
56		DPW	STANDARD PLOW	
57		DPW	STANDARD PLOW	
58		DPW	STANDARD PLOW	
59		DPW	PLOW (ORANGE)	
60		DPW	LOADER PLOW	
61		DPW	LOADER PLOW	
62		DPW	SANDER BODY	
63		DPW	SANDER BODY	
64		DPW	SANDER BODY	
65		DPW	FORKLIFT	

TYPE	COUNT
LARGE VEHICLE	5
MEDIUM VEHICLE	2
SMALL VEHICLE	8
LARGE EQUIPMENT	3
MEDIUM EQUIPMENT	0
OBLONG EQUIPMENT	0
SMALL EQUIPMENT	8
X-SMALL EQUIPMENT	6
MISC. EQUIPMENT	0
ATTACHMENT	26
TOTAL	58

FULL BUILD OUT

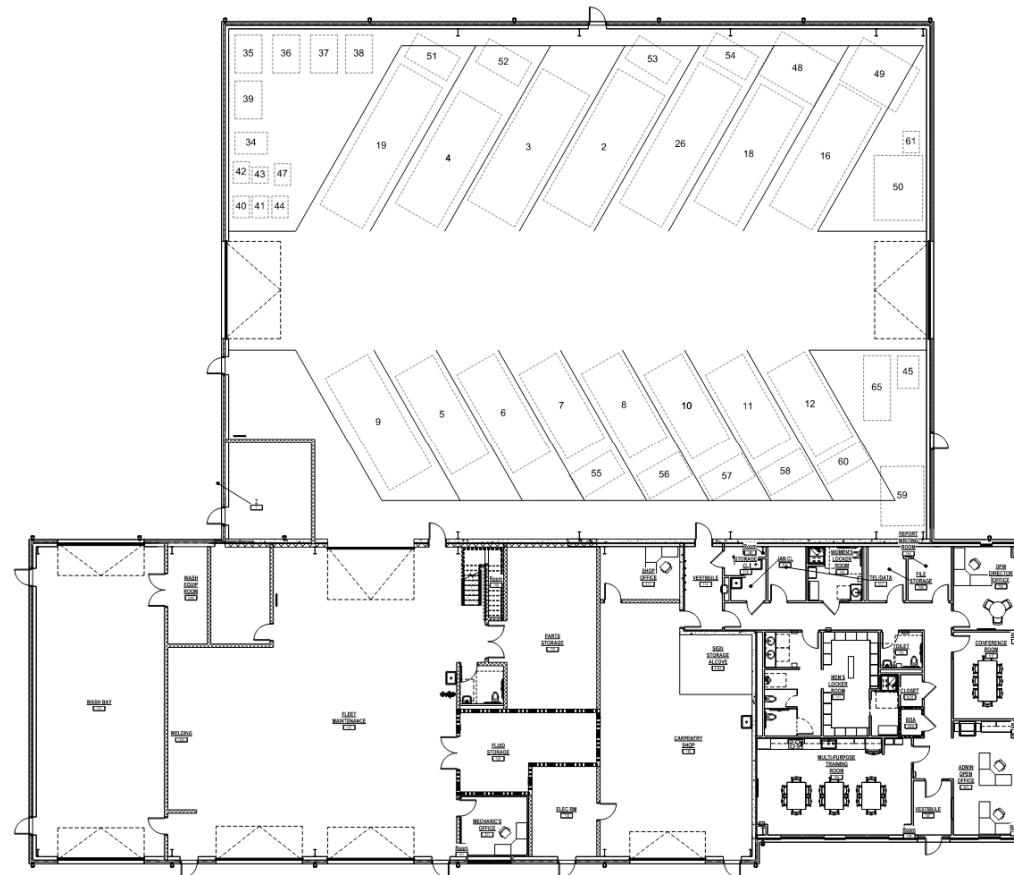
SCENARIO 1



- OPTIMAL RESPONSE TIME, EFFICIENCY, AND SAFETY
- ALL OPERATION BAYS LEFT OPEN FOR USE
- NO ADDITIONAL COSTS ASSOCIATED WITH FLEET STORED OUTSIDE

BASE + 12,800 SF GARAGE

SCENARIO 2

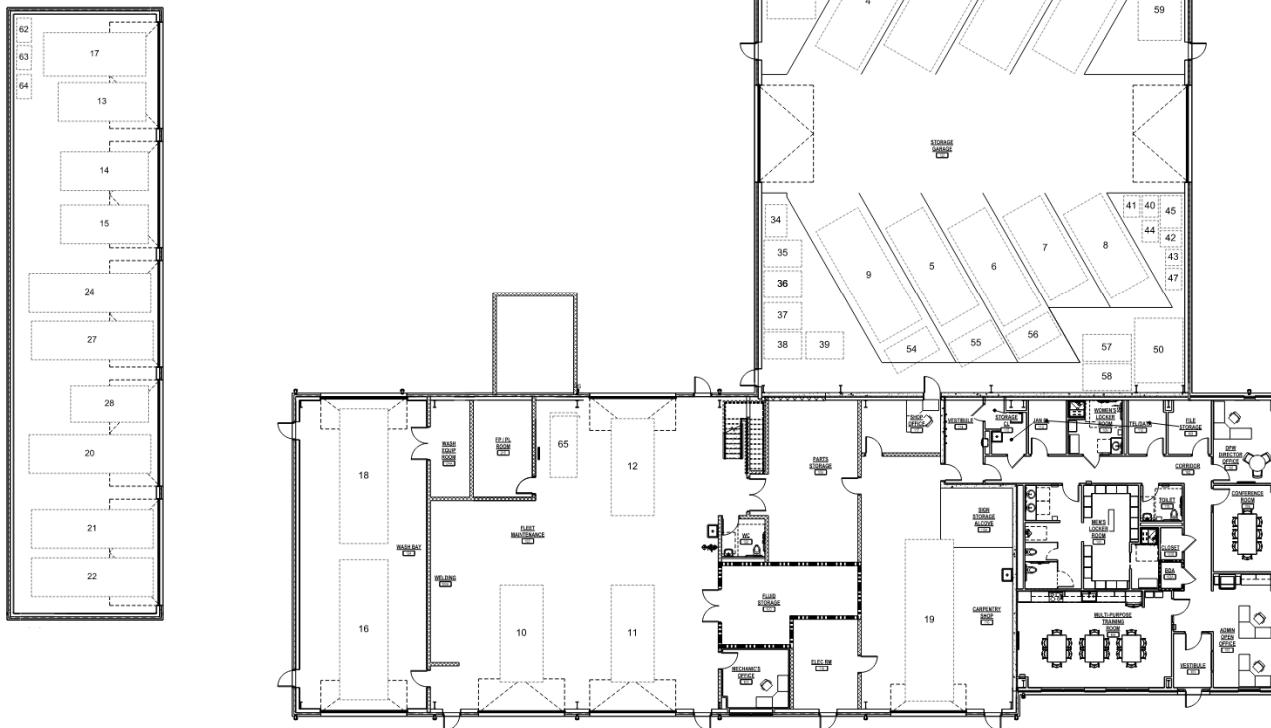


[OVER A 50 YR PERIOD]
Costs Associated with
Storing Outside:
15 Fleet Items = **\$ 4.8 M**

- ALL OPERATION BAYS LEFT OPEN FOR USE

BASE + COLD STORAGE + 7,800 SF GARAGE

SCENARIO 3



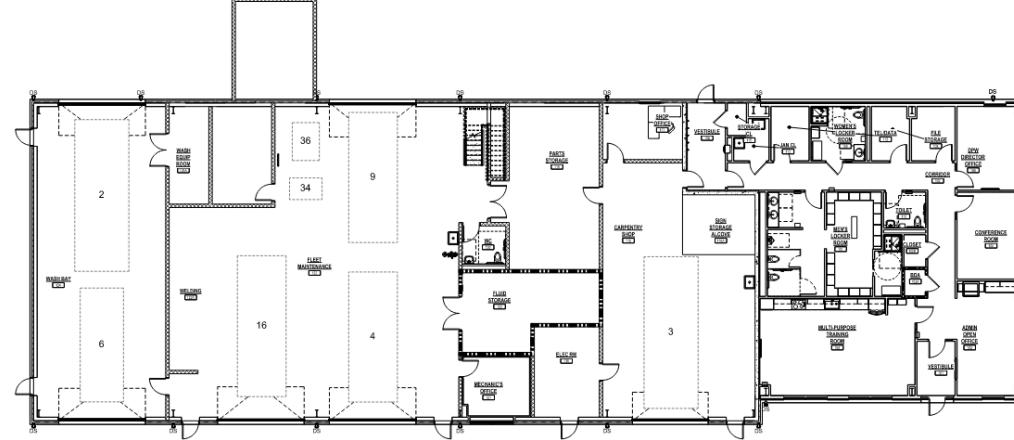
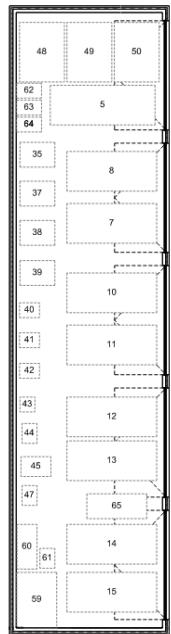
[OVER A 50 YR PERIOD]
Costs Associated with
Storing Outside:
2 Fleet Items = **\$ 786,000**

- ITEMS STORED IN OPERATIONAL BAYS, IMPACTING EASE OF USE

Cost Associated with
Storing the 6 Fleet Items
Outside = **\$ 2.7 M**

BASE + COLD STORAGE BLDG

SCENARIO 4



[OVER A 50 YR PERIOD]
Costs Associated with
Storing Outside:
20 Fleet Items = **\$ 5.3 M**

- ITEMS STORED IN OPERATIONAL BAYS, IMPACTING EASE OF USE

Cost Associated with
Storing the 6 Fleet Items
Outside = **\$ 2.7 M**

BASE BID

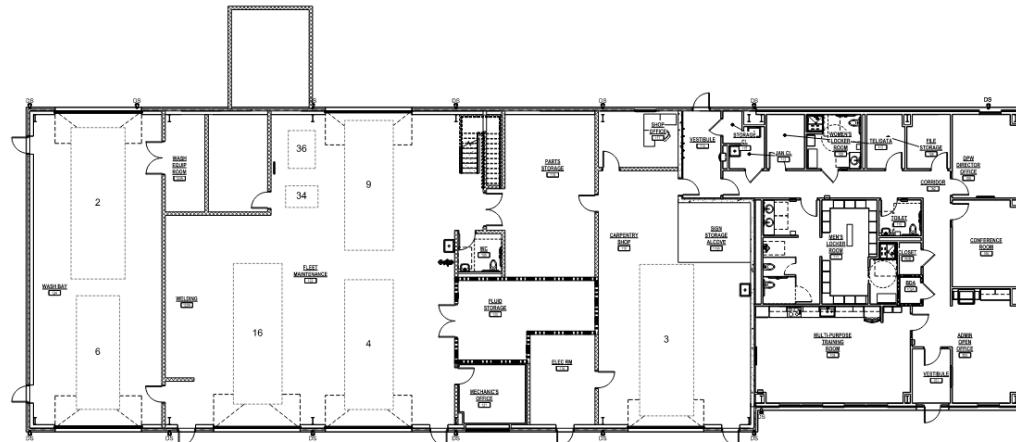
SCENARIO 5

[OVER A 50 YR PERIOD]

Costs Associated with Storing Outside:

50 Fleet Items = **12.1 M**

* ITEMS STORED IN
OPERATIONAL BAYS,
IMPACTING EASE OF USE



SCENARIO COST-BENEFIT OVERVIEW

[OVER 50 YR PERIOD]

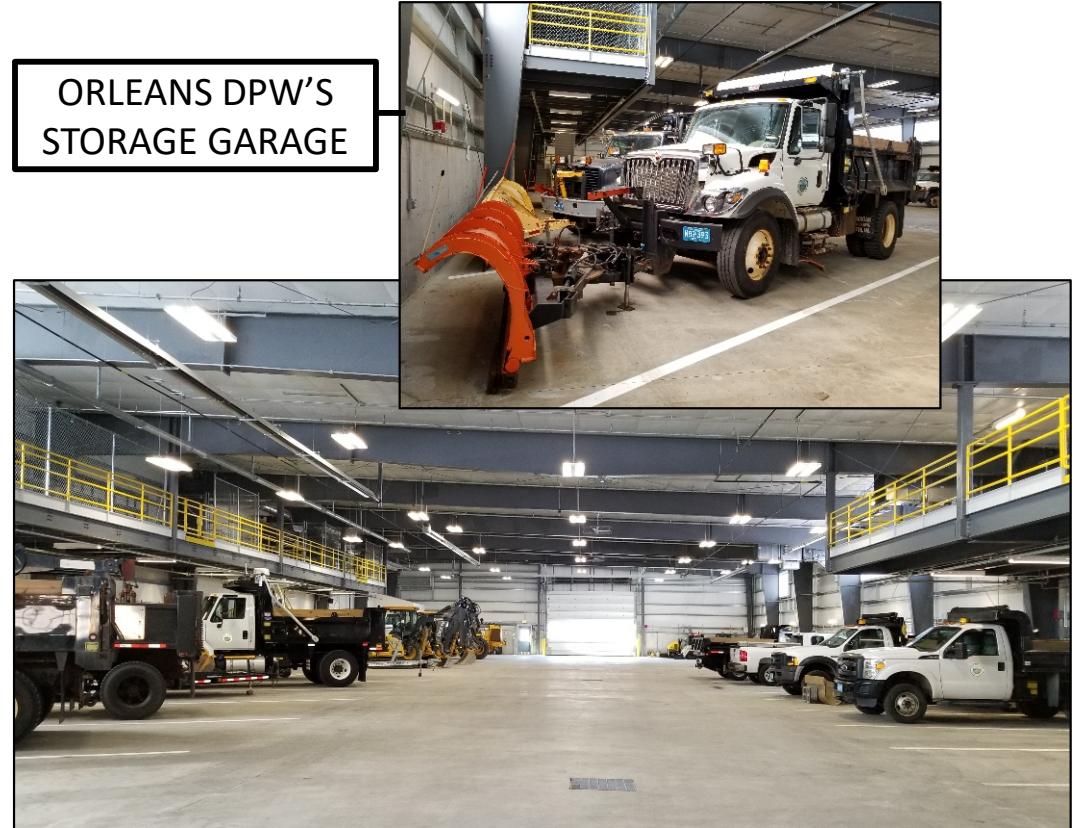
SCENARIO	DESCRIPTION	OUTSIDE FLEET COSTS	BUILDING COST INCREASE	LCCA
1	FULL BUILD OUT	\$ 0	\$ 10 M	\$ 10 M
2	BASE + 12,800 SF GARAGE	\$ 4.8 M	\$ 7.1 M	\$ 11.9 M
3	BASE + COLD STORAGE + 7,800 SF GARAGE	\$ 786k / \$ 3.5 M *	\$ 7.2 M	\$ 8.0 M / \$ 10.7 M *
4	BASE + COLD STORAGE	\$ 5.3 M \$ 8.0 M *	\$ 2.9 M	\$ 8.2 M / \$ 10.9 M *
5	BASE BID	\$ 12.1 M	\$ 0	\$ 12.1 M

* Plus another **\$ 2.7 M** if the 6 Fleet Items are moved outside to free up the operational bays.

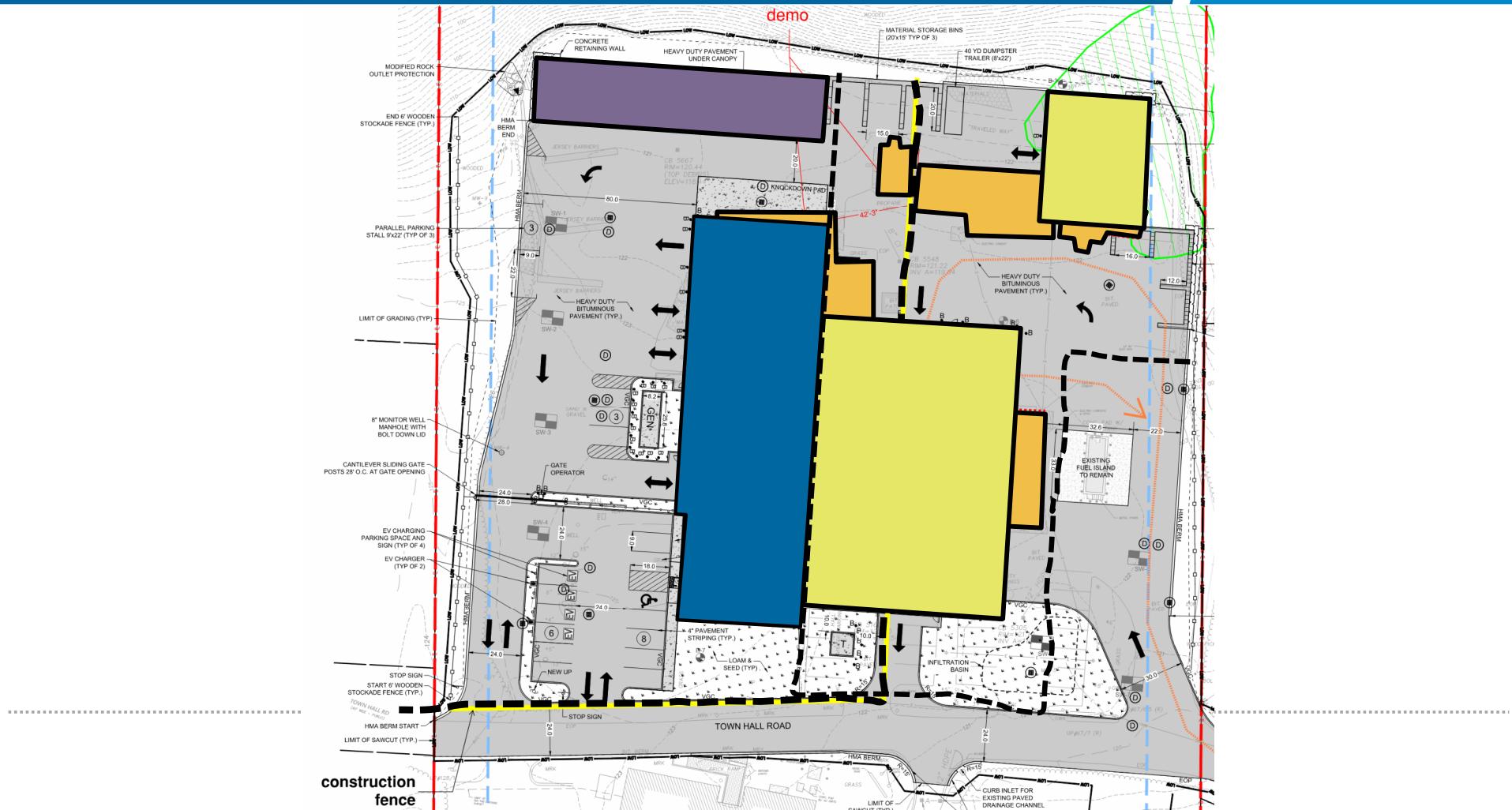
RECAP: WHY STORE FLEET INDOORS?

- Provide Cost-Effective & Efficient Operations
- Extend the Useful Life of Equipment
- Improve Employee Safety
- Improve Public Safety
- Stormwater Pollution Control
- Noise & Air Pollution Control

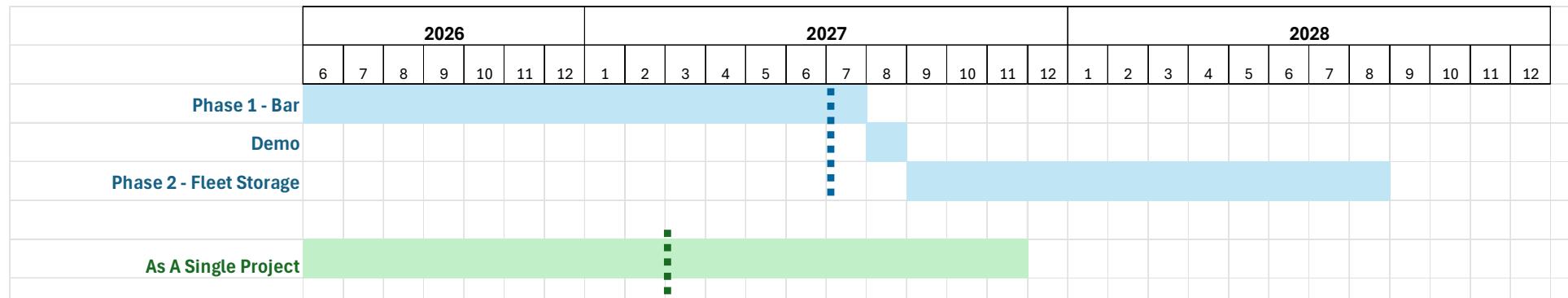
ORLEANS DPW'S
STORAGE GARAGE



PHASED CONSTRUCTION



PHASED VS. SINGLE



9 MONTHS – GENERAL CONDITIONS @ \$125K/MONTH	\$ 1,125,000
4 MONTHS – ESCALATION TO MID POINT OF CONSTRUCTION (1%)	\$ 266,700
TOTAL COST IMPLICATIONS OF PHASED CONSTRUCTION	\$ 1,391,700

2-MONTH LOOK AHEAD (DD)

- Progress on PWS Well & Main;
- Progress on Geothermal Well Field Design; Test Well Timing / Coordination
- Meet with Owner to review IT/Security/Access Provisions; Scheduled for 9/12
- Coordination with Eversource
- Continued Geotechnical Investigation
- Progress on Septic System Design
- Progress on Fire Suppression Cistern & Pump Design
- Meet with Fire Department
- Continued Salt Shed Coordination
- Permitting; Planning Board, Historic Review Board / Historic Commission



transform your environment