

# TOWN OF TRURO NEW PUBLIC WORKS FACILITY



Select Board Meeting – September 25, 2025

Combining Ad Hoc Committee Project Updates from 9/4 and 9/18

# AGENDA



**PROJECT STATUS  
UPDATE**



**FLEET COST-BENEFIT  
ANALYSIS**



**PHASED  
CONSTRUCTION**



**TOTAL PROJECT COSTS  
BREAKDOWN PER  
DESIGN SCENARIO**



**NEXT STEPS**

# PROJECT STATUS UPDATE

# 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 2026
- Election; Spring 2026

# PROGRESS SINCE DD KICK-OFF

## PROJECT UPDATE

- ✓ Reviewed Floor Plan with Users
- ✓ Progressed on PWS Well; Ongoing Discussions with DEP & Driller
- ✓ Progressed on Fire Protection Cistern and Pump Room Design
- ✓ Progressed on Coordinating Building Systems, Structural, and Industrial Equipment
- ✓ Follow up with Industrial Equipment Team and Mechanics / Shop Personnel
- ✓ Progressed on Coordinating Industrial Equipment Utilities
- ✓ Progressed on Coordinating Site Utilities: Septic, Stormwater, Geothermal, Water Storage Tank(s)
- ✓ Reengaged with Cape Light Compact regarding Utility Incentives; Path 1 MOU Signed
- ✓ Reviewed Site Plan with Users
- ✓ IT/ Security/ Access Client Meeting
- ✓ Conducted Geotechnical Test Pits, Stormwater Test Pits and Septic Perc Test
- ✓ Initial discussions with Fire Department

# CURRENT BASE + BID ALTERNATES

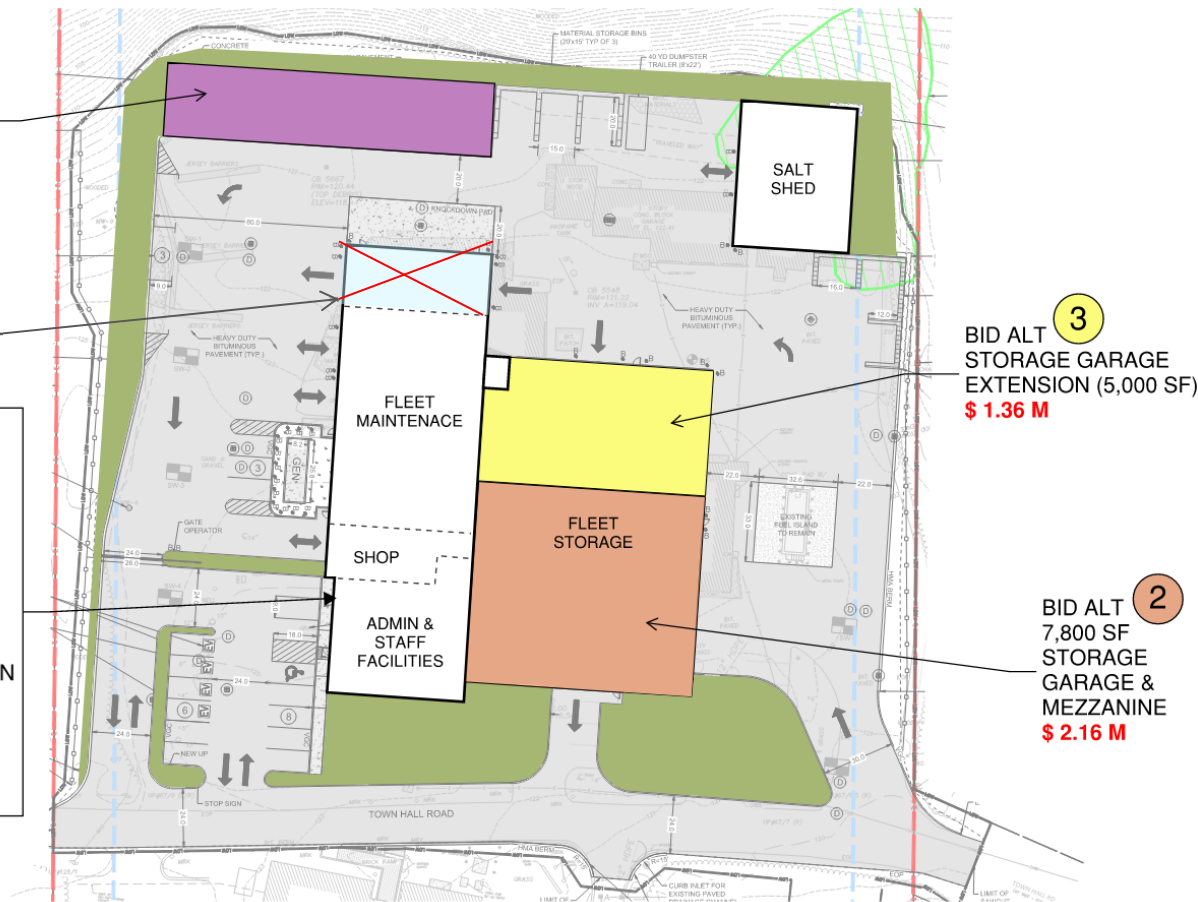
- WALL FINISHES & MEP IN BASE (± \$550K)
- VEHICLE WASH EQUIPMENT REMOVED (± \$390K)

**1**  
BID ALT  
COLD STORAGE  
BUILDING (4,050 SF)  
**\$ 1.5 M**

**3**  
~~BID ALT~~  
~~WALL FINISHES &  
WASH EQUIPMENT~~  
~~**\$ 940,000**~~

## BASE DESIGN

- DPW BUILDING (11,145 SF)
  - MEZZANINE (2,500 SF)
  - NEW SALT SHED
  - NEW SEPTIC SYSTEM (FOR DPW & TOWN HALL)
  - NEW GENERATOR
  - PWS WELL & WATER MAIN (FOR DPW & TOWN HALL)
  - FIRE PROTECTION CISTERN AND FIRE PUMP ROOM
  - STORMWATER DRAINAGE
- \$20 M**
- GEOTHERMAL WELL FIELD
- \$1.2 M**



**3**  
BID ALT  
STORAGE GARAGE  
EXTENSION (5,000 SF)  
**\$ 1.36 M**

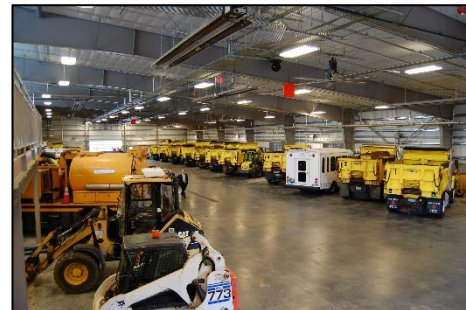
**2**  
BID ALT  
7,800 SF  
STORAGE  
GARAGE &  
MEZZANINE  
**\$ 2.16 M**

# FLEET COST-BENEFIT ANALYSIS



# 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

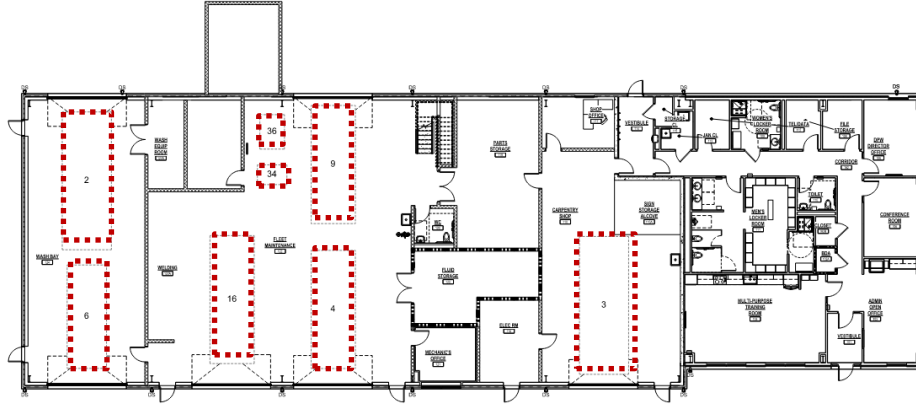
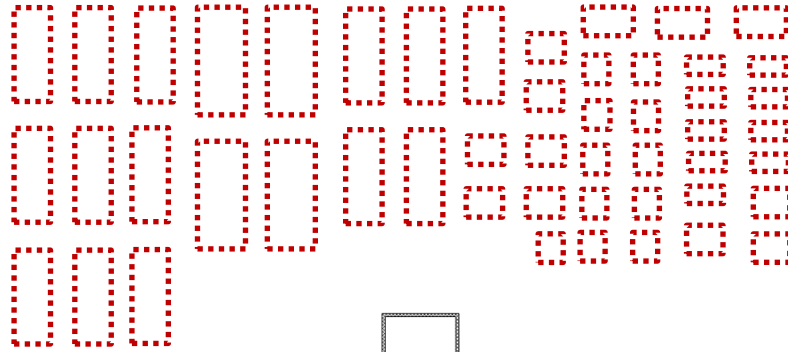
# TRURO DPW'S FLEET INVENTORY

WSE ID #	TOWN ID #	DIVISION	MODEL TYPE	MAKE / MODEL	WSE ID #	TOWN ID #	DIVISION	MODEL TYPE	MAKE / MODEL
2		DPW	TRACTOR	PETERBILT	34		DPW	RIDE MOWER	JOHN DEERE
3		DPW	TRUCK	INTERNATIONAL 7400	35		DPW	EQUIPMENT	HYSTER
4		DPW	DUMP TRUCK	INTERNATIONAL 7400	36		DPW	SKID STEER	JOHN DEERE 323E
5	T-3	DPW	PICK UP TRUCK	FORD F450	37		DPW	RIDE MOWER	TORO
6		DPW	DUMP TRUCK	FORD F450	38		DPW	RIDE MOWER	TORO
7	T-6	DPW	PICK UP	FORD F350	39		DPW	RIDE MOWER	BOB CAT
8	S-1	DPW	PICK UP	FORD F350	41		DPW	PUSH MOWER	
9		DPW	DUMP TRUCK		42		DPW	PAINT MACHINE	
10	T-8	DPW	PICK UP	FORD F-350	43		DPW	POWER WASHER	
11	T-4	DPW	PICK UP	FORD F350	44		DPW	WALK BEHIND SAW	EDCO
12	T-2	DPW	PICK UP	FORD F350	45		DPW	LIFT	JLG
13	T-9	DPW	PICK UP	FORD F350	47		DPW	MOWER	TIGER
14		DPW	PICK UP	FORD F350	48		DPW	WING PLOW	
15		DPW	PICK UP		49		DPW	WING PLOW	
16		DPW	SWEEPER	ELGIN	50		DPW	WING PLOW	
17		DPW	EXCAVATOR	JOHN DEERE 130G	51		DPW	STANDARD PLOW	
18		DPW	LOADER	JOHN DEERE	52		DPW	STANDARD PLOW	
19		DPW	LIFT	JLG 600S	53		DPW	STANDARD PLOW	
20		DPW	GENERATOR BOX TRAILER		54		DPW	STANDARD PLOW	
21		DPW	GENERATOR TRAILER		55		DPW	STANDARD PLOW	
22		DPW	WOOD CHIPPER	BANDIT	56		DPW	STANDARD PLOW	
23		DPW	TRAILER	TIMPT	57		DPW	STANDARD PLOW	
24		DPW	TRAILER	CAM	58		DPW	STANDARD PLOW	
25		DPW	TRAILER	KAUFMAN	59		DPW	PLOW (ORANGE)	
26		DPW	TRAILER	INTERSTATE	60		DPW	LOADER PLOW	
27		DPW	TRAILER	BENCE	61		DPW	LOADER PLOW	
28		DPW	TRAILER		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
<b>TOTAL</b>	<b>58</b>

# BASE (11,145 SF)

## OPTION A



[OVER A 50 YR PERIOD]

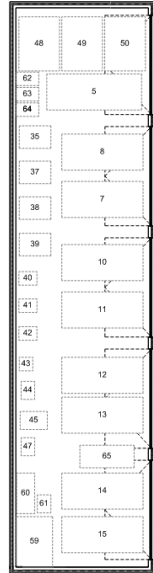
Costs Associated with  
Storing Outside:

50 Fleet Items = **\$ 12.1 M**

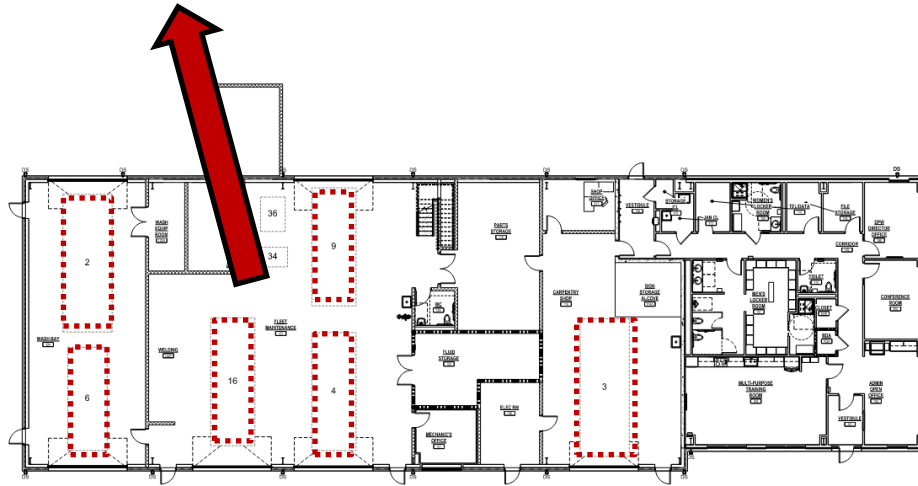
- ITEMS STORED IN  
OPERATIONAL BAYS,  
IMPACTING EASE OF USE

# BASE (11,145 SF) + COLD STORAGE BUILDING (4,050 SF)

## OPTION B



00000088  
00000088



[OVER A 50 YR PERIOD]  
Costs Associated with  
Storing Outside:

20 Fleet Items = **\$ 5.3 M**

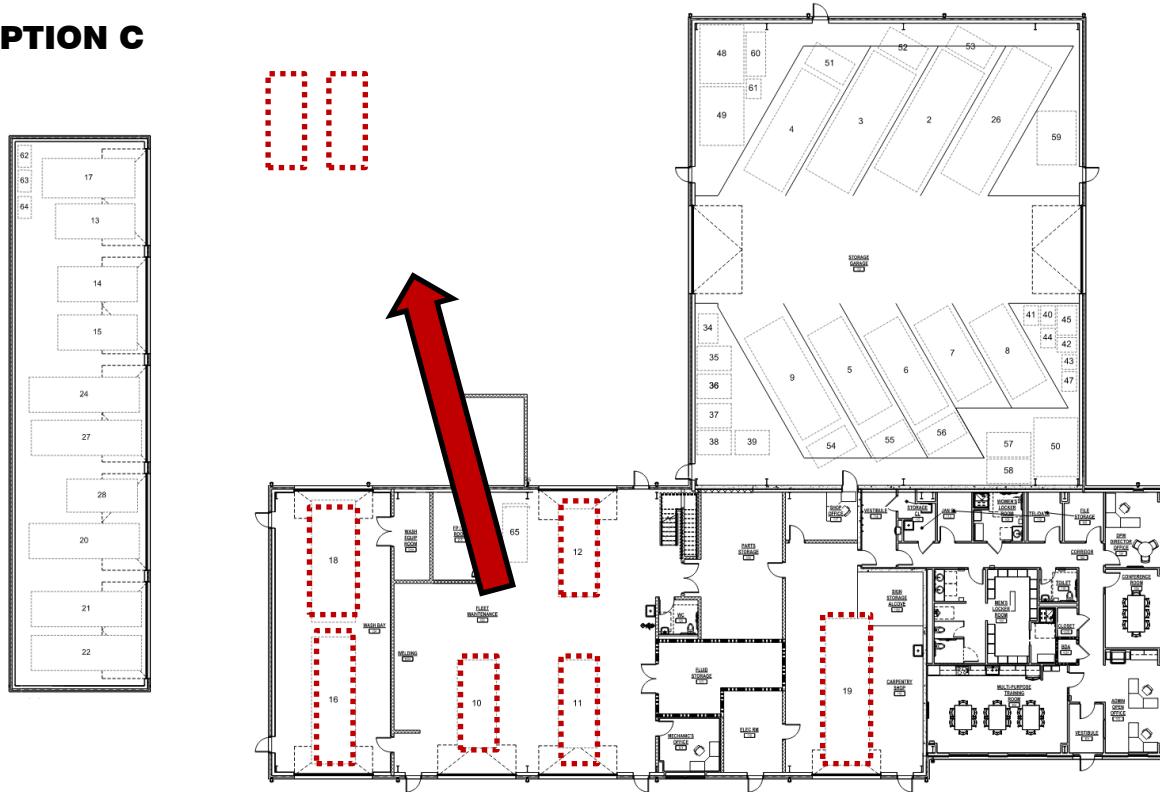
- ITEMS STORED IN  
OPERATIONAL BAYS,  
IMPACTING EASE OF USE

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

**\$ 8.0 M**

# BASE (11,145 SF) + ATTACHED GARAGE (7,800 SF) + COLD STORAGE BUILDING (4,050 SF)

## OPTION C



[OVER A 50 YR PERIOD]

Costs Associated with  
Storing Outside:

2 Fleet Items = **\$ 786,000**

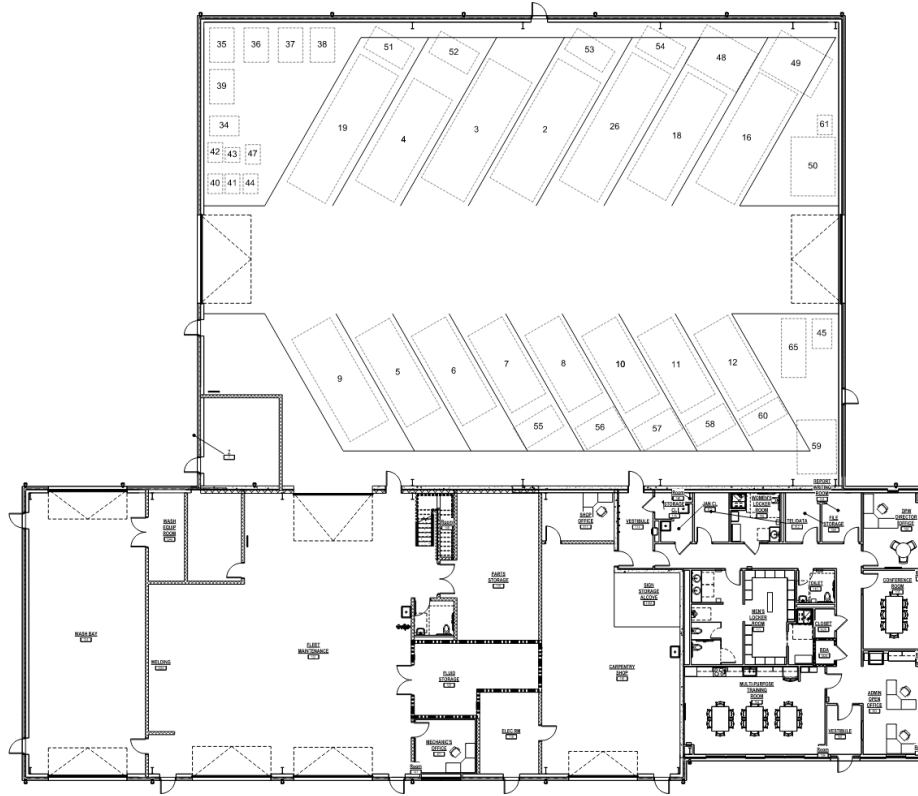
- ITEMS STORED IN  
OPERATIONAL BAYS,  
IMPACTING EASE OF USE

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

**\$ 3.5 M**

# BASE (11,145 SF) + ATTACHED GARAGE (12,800 SF)

## OPTION D



[OVER A 50 YR PERIOD]

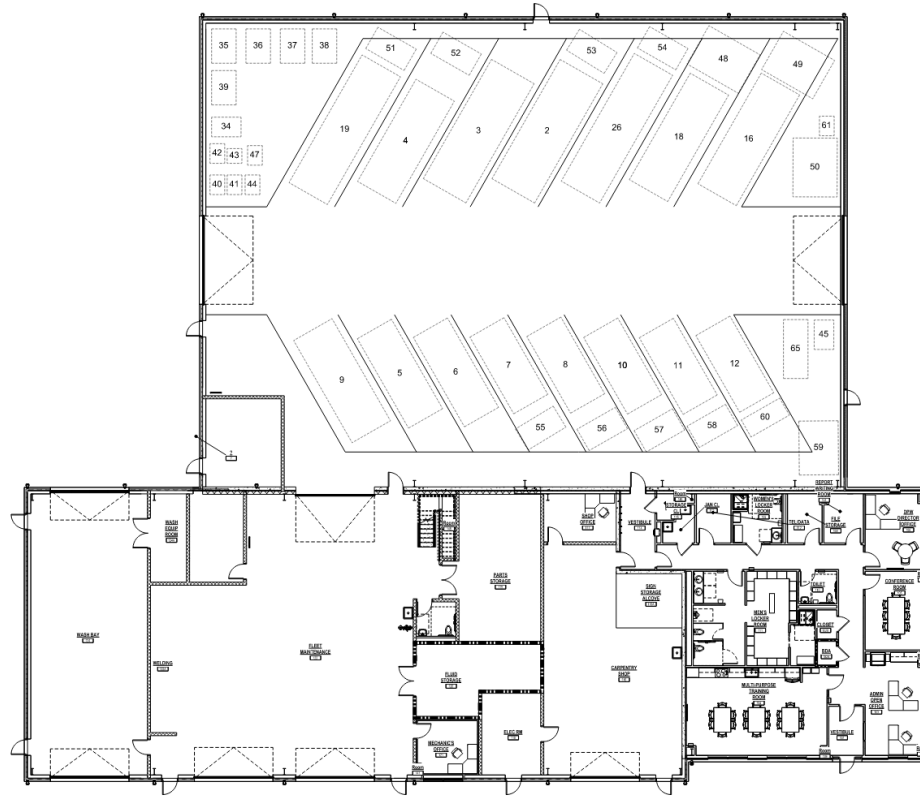
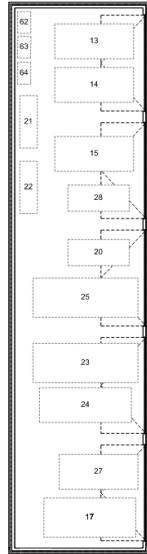
Costs Associated with  
Storing Outside:

15 Fleet Items = **\$ 4.8 M**

- ALL OPERATION BAYS LEFT  
OPEN FOR USE

# FULL BUILD OUT (23,525 SF) + COLD STORAGE BUILDING (4,050 SF)

## OPTION E



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

# FLEET COST-BENEFIT OVERVIEW

[OVER 50 YR PERIOD]

Includes Construction Cost of Storage Areas,  
Building Maintenance Costs, and  
HVAC/Electrical Costs

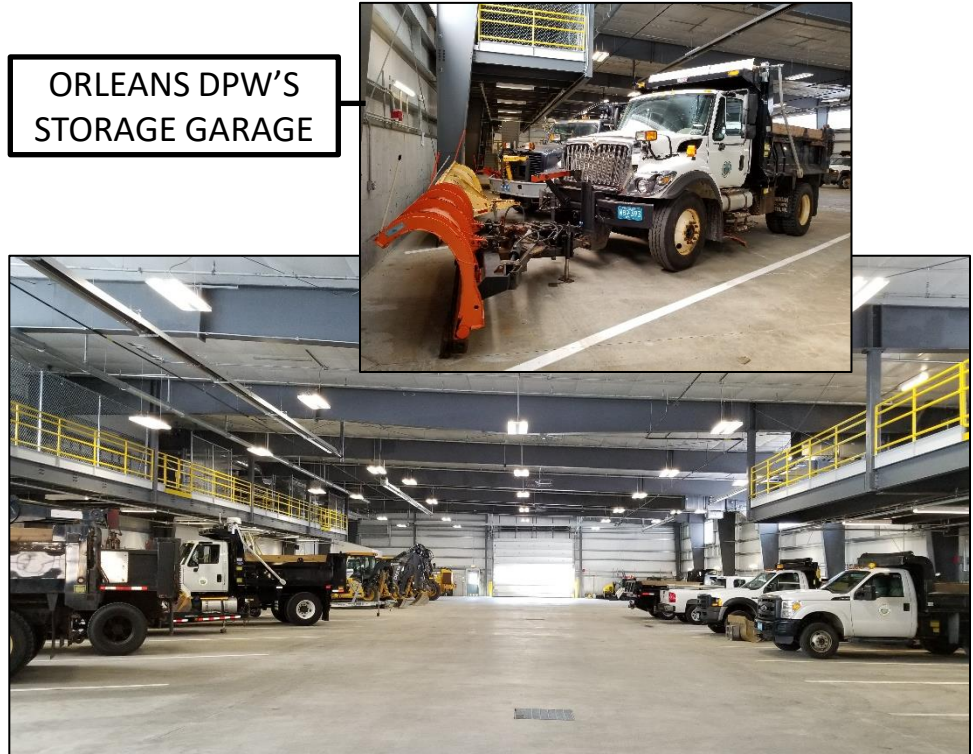
OPTION	DESCRIPTION	OUTSIDE FLEET COSTS	BUILDING COST INCREASE	LCCA
A	Base (11,145 sf)	\$ 12.1 M	\$ 0	\$ 12.1 M
B	Base (11,145 sf) + Cold Storage Building (4,050 sf)	\$ 8.0 M *	\$ 2.9 M	\$ 10.9 M
C	Base (11,145 sf) + Attached Garage (7,800 sf) + Cold Storage Building (4,050 sf)	\$ 3.5 M *	\$ 7.2 M	\$ 10.7 M
D	Base (11,145 sf) + Attached Garage (12,800 sf)	\$ 4.8 M	\$ 7.1 M	\$ 11.9 M
E	Full Build Out (23,525 sf) + Cold Storage Building (4,050 sf)	\$ 0	\$ 10 M	\$ 10 M

\* Assumes the 6 Fleet Items are moved outside to free up the operational bays.



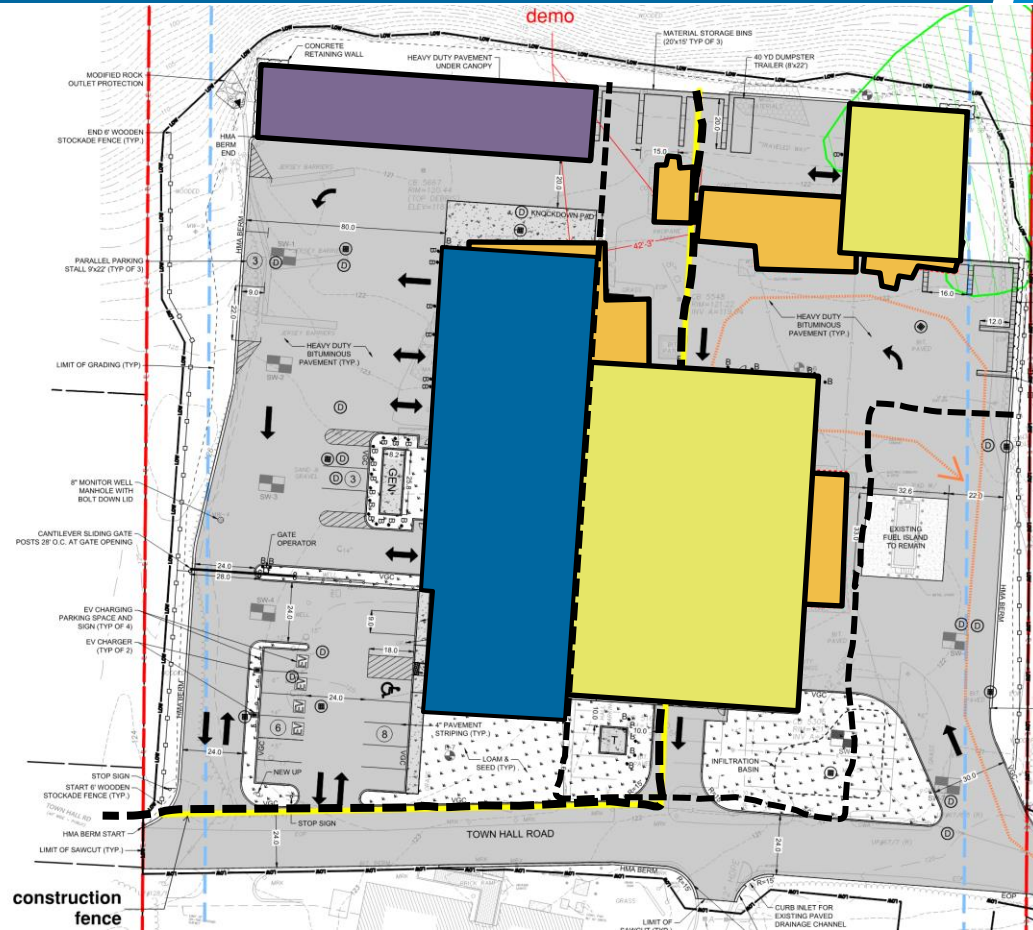
# RECAP: WHY STORE FLEET INDOORS?

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

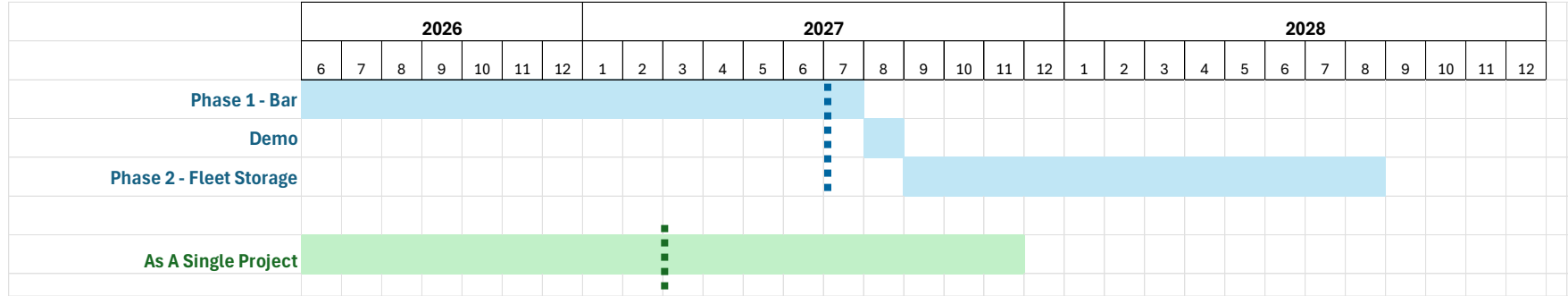


# PHASED CONSTRUCTION

# PHASED CONSTRUCTION



# PHASED VS. SINGLE CONSTRUCTION



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**

# TOTAL PROJECT COSTS BREAKDOWN PER DESIGN SCENARIO

# DESIGN SCENARIOS

## Scenario 1: (Current Base)

- 11,145 square foot main Building plus 2,500 square feet of Mezzanine
  - Totaling 13,645 sf
  - Wash Bay with protective finishes, but without vehicle wash equipment
  - Increase in main building square footage due to the need for a Fire Pump Room
- New Salt Shed
- New Generator
- New Septic Treatment & Disposal System for the DPW and Town Hall
- PWS Drinking Well a Water Main for the DPW and Town Hall
- Fire Protection Pump Room & Cistern
- Stormwater Drainage

## Scenario 2: (Ad Hoc Base Recommendation)

- 18,955 square foot main Building plus 2,500 square feet of Mezzanine
  - Totaling 21,455 sf
  - Wash Bay with protective finishes, but without vehicle wash equipment
- New Salt Shed
- New Generator
- New Septic System Treatment & Disposal for the DPW and Town Hall
- PWS Drinking Well a Water Main for the DPW and Town Hall
- Fire Protection Pump Room & Cistern
- Stormwater Drainage

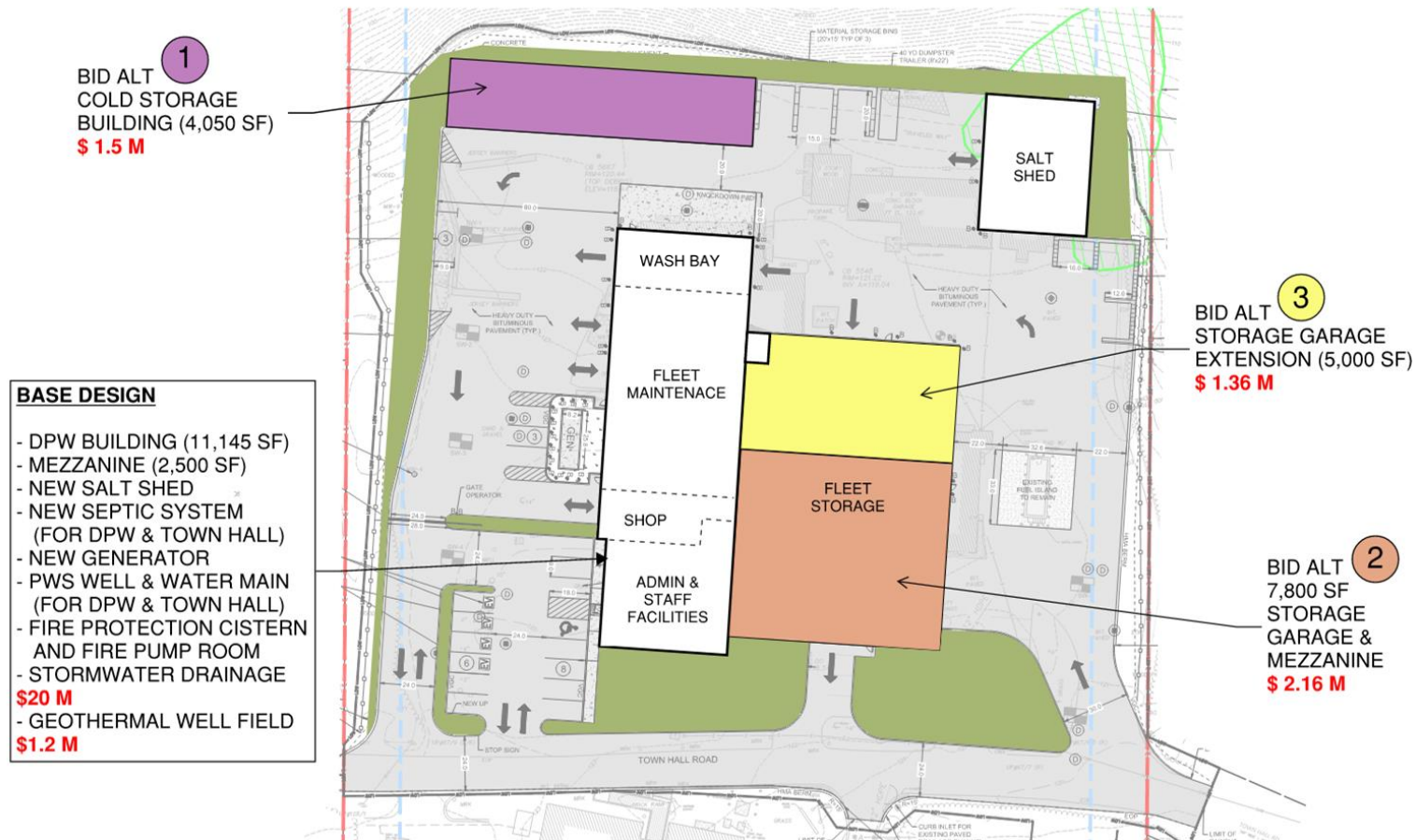
## Scenario 3: (Recommended Base & New Bid Alt 1 Recommendation)

- Recommended Base as described in Scenario 2
- 5,000 square foot Storage Garage Extension (new Bid Alt #1 recommendation)

## Scenario 4: (Recommended Base & New Bid Alt 1 + 2 Recommendations)

- Recommended Base as described in Scenario 2
- 5,000 square foot Storage Garage Extension (new Bid Alt #1 recommendation)
- Standalone Cold Storage Building (new Bid Alt #2 recommendation)

# CURRENT BASE + BID ALTERNATES





# AD HOC COMMITTEE RECOMMENDATION

**2**  
BID ALT  
COLD STORAGE  
BUILDING (4,050 SF)  
**\$ 1.5 M**



**1**  
BID ALT  
STORAGE GARAGE  
EXTENSION (5,000 SF)  
**\$ 1.36 M**

## **BASE DESIGN**

- DPW BUILDING (18,955 SF),
- MEZZANINE (2,500 SF)
- NEW SALT SHED
- NEW SEPTIC SYSTEM  
(FOR DPW & TOWN HALL)
- NEW GENERATOR
- PWS WELL & WATER MAIN  
(FOR DPW & TOWN HALL)
- FIRE PROTECTION CISTERN  
AND FIRE PUMP ROOM
- STORMWATER DRAINAGE  
**\$22.2 M**
- GEOTHERMAL WELL FIELD  
**\$1.2 M**



# PROJECT COSTS BREAKDOWN PER DESIGN SCENARIO

	Current Base <b>SCENARIO 1</b>	Ad Hoc Recommended Base <b>SCENARIO 2</b>	Recommended Base & Bid Alt 1 <b>SCENARIO 3</b>	Recommended Base & Bid Alt 1 + 2 <b>SCENARIO 4</b>
Construction Cost Estimate	± \$ 20,050,000	± \$ 22,200,000	± \$ 23,560,000	± \$ 25,060,000
Geothermal	± \$ 1,200,000	± \$ 1,200,000	± \$ 1,200,000	± \$ 1,200,000
Soft Costs	± \$ 5,270,075	± \$ 5,525,900	± \$ 5,580,300	± \$ 5,640,300
Construction Contingency	± \$ 1,062,500	± \$ 1,170,000	± \$ 1,238,000	± \$ 1,313,000
Phased Construction Costs *	± \$ 120,000	± \$ 1,391,700*	± \$ 1,391,700*	± \$ 1,391,700*
<b>Estimated Total Project Costs</b>	<b>± \$ 27,702,575</b>	<b>± \$ 31,487,600</b>	<b>± \$ 32,970,000</b>	<b>± \$ 34,605,000</b>
2024 Appropriation	(\$ 2,800,000)	(\$ 2,800,000)	(\$ 2,800,000)	(\$ 2,800,000)
<b>Total Remaining Appropriation</b>	<b>± \$ 24,902,575</b>	<b>± \$ 28,687,600</b>	<b>± \$ 30,170,000</b>	<b>± \$ 31,805,000</b>
<i>Mass Save Heat Pump Adder</i>	<i>(\$ 135,000)</i>	<i>(\$ 135,000)</i>	<i>(\$ 135,000)</i>	<i>(\$ 135,000)</i>
<i>Construction Incentive (± \$2/sf)</i>	<i>(\$ 22,290±)</i>	<i>(\$ 37,820 ±)</i>	<i>(\$ 47,820 ±)</i>	<i>(\$ 47,820 ±)</i>
<i>Post-Occupancy Incentive (\$1.5/sf)</i>	<i>(\$ 16,717)</i>	<i>(\$ 28,365)</i>	<i>(\$ 35,865)</i>	<i>(\$ 35,865)</i>
<i>30% IRA Federal Tax Credit</i>	<i>(\$ 869,400 ±)</i>	<i>(\$ 1,159,00 ±)</i>	<i>(\$ 1,228,500±)</i>	<i>(\$ 1,228,500 ±)</i>
<b>Total Incentives &amp; Credits</b>	<b>(\$ 1,043,407 ±)</b>	<b>(\$ 1,360,685 ±)</b>	<b>(\$ 1,447,185 ±)</b>	<b>(\$ 1,447,185 ±)</b>

\* Phased Construction accounts for (9) additional months of General Conditions at \$125,000/months and (4) months escalation to midpoint of construction (1%)  
- alternatively, temporary off-site facilities are estimated at \$380,000 and would be added to the Soft Costs in lieu of the \$1.39 M

# PRICE DRIVEN OPTION

## Current Base & Cold Storage Building **PRICE DRIVEN OPTION**

Construction Cost Estimate ± \$ 21,550,000

Geothermal ± \$ 1,200,000

Soft Costs ± \$ 5,502,575

Construction Contingency ± \$ 1,137,500

Temporary On-Site Facilities ± \$ 120,000

**Estimated Total Project Costs ± \$ 29,510,075**

*2024 Appropriation (\$ 2,800,000)*

**Total Remaining Appropriation ± \$ 26,710,075**

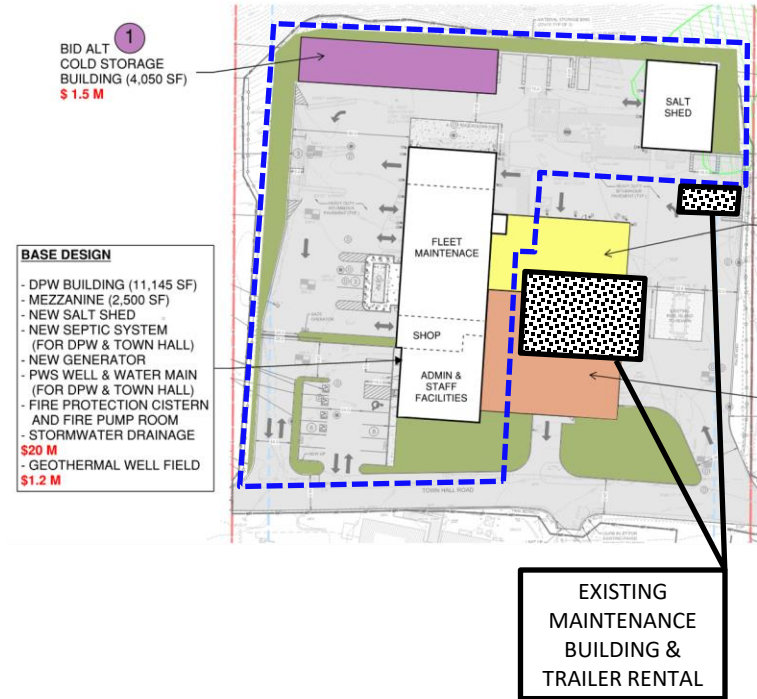
*Mass Save Heat Pump Adder (\$ 135,000)*

*Construction Incentive (± \$2/sf) (\$ 22,290±)*

*Post-Occupancy Incentive (\$1.5/sf) (\$ 16,717)*

*30% IRA Federal Tax Credit (\$ 869,400 ±)*

**Total Incentives & Credits (\$ 1,043,407 ±)**



# TOTAL LONG-TERM PROJECT & OPERATIONAL COSTS

	Current Base <b><u>SCENARIO 1</u></b>	Ad Hoc Recommended Base <b><u>SCENARIO 2 <sup>B</sup></u></b>	Recommended Base & Bid Alt 1 <b><u>SCENARIO 3 <sup>B</sup></u></b>	Recommended Base & Bid Alt 1 + 2 <b><u>SCENARIO 4 <sup>B</sup></u></b>	Current Base & Cold Storage Building <b><u>PRICE DRIVEN OPTION</u></b>
<b>Total Remaining Appropriation</b>	<b>± \$ 24,902,575</b>	<b>± \$ 28,687,600</b>	<b>± \$ 30,170,000</b>	<b>± \$ 31,805,000</b>	<b>± \$ 26,710,75</b>
Fleet Cost-Benefit LCCA <sup>A</sup>	± \$ 12,100,000	± \$ 8,123,400	± \$ 7,209,000	± \$ 3,386,700	± \$ 8,981,500
<b>Total Long-term Project &amp; Operational Cost (50 yr)</b>	<b>± \$ 37,002,575</b>	<b>± \$ 36,811,000</b>	<b>± \$ 37,379,000</b>	<b>± \$ 35,191,700</b>	<b>± \$ 35,691,575</b>

<sup>A</sup> LCCA includes additional fleet maintenance costs due to outdoor storage, and the building maintenance costs and HVAC/Electrical costs of the fleet storage areas; all of which over a 50 year period. The construction costs of the storage areas are already captured within the Total Remaining Appropriation above.

<sup>B</sup> Scenarios 2-4 include Phased Construction costs (\$ 1.39 M) that account for (9) additional months of General Conditions at \$125,000/months and (4) months escalation to midpoint of construction (1%).

- alternatively, temporary off-site facilities are estimated at \$380,000 and would be added to the Soft Costs in lieu of the \$ 1.39 M

# NEXT STEPS

# 1-MONTH LOOK AHEAD (DD)

- ☐ Preliminary DD Pricing Set Submission to Cost Estimators; 10/3
  - ☐ QA/QC Review & Implementation
  - ☐ Final DD Plans & Cost Estimate Submission to Town; 10/31
- ☐ Progress on PWS Well & Main
- ☐ Progress on Geothermal Well Field Design; Test Well Timing / Coordination
- ☐ Coordination with Eversource
- ☐ Follow up with Fire Department
- ☐ Meet with IT Director
- ☐ Continued Salt Shed Coordination with HRP's PFAS Cap Design
- ☐ Permitting - Planning Board; Aiming for 10/20



transform your environment





# Storage Garage Alternates – Order/Location 1





# Q&A FROM 9/4 AD HOC COMMITTEE MEETING

# 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

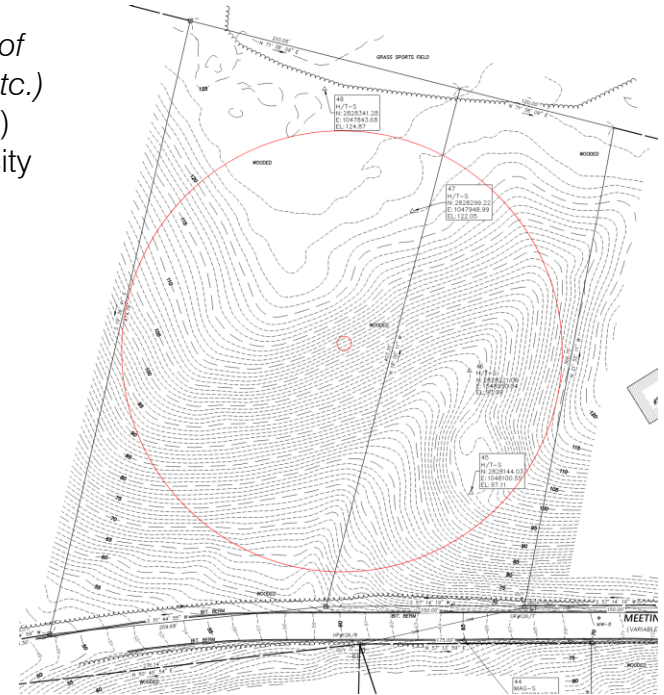
**200 mWh = 200,000 kWh**

# 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

