



Fair Haven  
*New Jersey*

# Facilities Update

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DEPARTMENT OF PUBLIC WORKS (DPW) & FAIR HAVEN POLICE DEPARTMENT  
(FHPD)

30 JANUARY 2023

# 23 January 2023 Action Items

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## DPW

Roof Proposals (3) Generated

Fuel Tank Replacement

LSRP Next Steps

Structural Engineering Assessment

## FHPD

Redesign Proposal – Option E

Gabel Associates Engagement

Rumson/Fair Haven Construction Official

LSRP Next Steps

Underground Tank Removal

Potential Other Parking Solutions

JCPL Engagement – Temporary Service

# DPW: Update

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**Roof:** The Governing Body (GB) is in receipt of three (3) roofing roof (DPW & BH Lower Roof) proposals

- This is specific to selecting the company doing the assessment, bid specs, cost estimate, and phasing (inclusive of infrared analysis to determine extent of water damage)
- Pending completion of this, the project then goes out to bid and the contractor will have to post a performance and ultimately a maintenance bond
- Pending GB decision to either renovate or pursue a new DPW building, one proposal can be selected

**Fuel Tank Replacement:** Currently evaluating additional companies to replace the fuel tanks at DPW; specifically engaging with towns who just recently completed

**LSRP:** On 26 January 2023, CME provided an update regarding its environmental assessment of the five (5) AOCs currently present

- All five (5) AOCs require remediation by July 2025 (see Appendix A for further details)
  - Stormwater Drywells
  - Heating Oil Tank
  - Hydraulic Lift Area
  - Hazardous Material Storage & Handling Area
  - Floor Drains (Sealed)
- The extent of the remediation is contingent upon the extent of site area disturbance (where the applicable AOC resides)
- Pending on the GB decision to either renovate or pursue a new DPW building, the mitigation of these five (5) AOCs can then be phased in a manner from present to July 2025 deadline

# DPW: Structural Assessment Background

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On 19 January 2023, Matt Martin, President of Scope Engineering, conducted an on-site visit on 19 January 2023

On 27 January 2023, the DRAFT as-built plans and structural evaluation of the existing building were provided (see Appendix B – D for as-built renderings)

- The analysis is complete, and the report identifies the overall adequacies and deficiencies per code
- Finalization of the assessment is pending remediation recommendations of deficiencies

Based on the inspection and analysis, the design of the structure meets the minimum structural requirements to be considered structurally sound, with no reason for the building not to be considered to be “serviceable” for continued use, and consideration for renovations or upgrades

Final report is pending additional details on the suggested repair details

- Pending GB decision, the architect selected for the DPW project could use this assessment to inform the project

# DPW: Structural Assessment Findings

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**Roof Rafters:** The existing roof system, consisting of exposed roof rafters (with no ceiling attached) meets both the minimum design load standard and can support the additional 5psf of dead load (15 psf system total)

- **Wind Loads:** Based on the site inspection done, one (1) Simpson Strong-Tie H2.5A Hurricane Tie can provide the required uplift capacity at each joist connection

**Roof Beams:** Our review of the glulam specifications and product guide, along with calculations for capacity indicate that the existing glulam beams exceed the required load capacity for the current spans and configuration

**Support Posts/Wall:** The posts are adequate for the applied and anticipated loads

**Footings/Foundation:** Post footing and post connection design is provided based on the precursory soil information available, Geotechnical Engineer to confirm

- Per Scope, there are no visible signs the footings/foundations are not structurally sound

**Shear Walls:** The building generally meets the braced wall minimum requirements, however there are two areas requiring attention

# DPW: Proposed Next Steps & Milestones

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## 30 January 2023 – Next Steps

- Decision point to renovate or build a new DPW building
- Select Roof entity and request scope of work and cost estimate generated
- Continue work to receive a State-generated cost to replace the EOL fuel tanks
- Continue to meet with LSRP to outline phased remediation based on decision to either renovate or build new
- Begin Architect discussion with end-goal to identify an Architect to support next steps
- Landscape Architect engaged to support making the DPW more residentially friendly

## Roof Milestones w/ SWAG Dates

- Bid Specifications Provided – February 2023
- Roof Project Awarded – February 2023
- Contractor Mobilization – March 2023
- Acquire Materials – March/April 2023
- Roof Construction Duration – April/May 2023 (2 – 4 weeks)

## Milestones w/ SWAG Dates

- Architect Identified – February 2023
- Architect Awarded – March 2023
- Schematic Drawings & Rendering Presented – April 2023
- Resident Comment & Feedback – April 2023
- Construction Drawings – May to July 2023
- Bidding – August 2023
- Evaluate Bids – September 2023
- Award & Contract Mobilization – October 2023
- Begin Renovations – November 2023
- Estimated Construction Time – 10 Months
- Estimated Completion Time – Summer 2024

# FHPD: Updates

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**Redesign Proposal:** Between 24 & 27 January 2023, a redesign proposal was generated for Option E (1-story FHPD and 1-story Community Center)

**Furniture Vendor:** The Borough is currently identifying a State Contract vendor to support furniture procurement

- The goal is to identify this entity to help inform the design

**Fair Haven Native Tree & Plant List:** Several new trees are to be provided as part of the Landscape Plan for the new FHPD

**Residential Snapshots – Inform Design:** Twelve (12) photographs were initially passed to TGP to inform idea of the "small town character"

- Main themes are to "combine historical charm" with a "modernized" "understated", "seaside colonial/cottage" design

**Noise Ordinance – State & Local:** The process to review Fair Haven's noise ordinance, specific to mechanicals, was identified as a requirement to ensure aligned with NJ state regulation

**Gabel Associates:** A proposal and references were generated and passed to the GB for review

**LSRP:** A meeting occurred with CME, Fair Haven's LSRP, on 25 January 2023 to discuss the three (3) AOCs present currently at 35 Fisk Street

**Colts Neck Police Department (CNPd):** A tour of the CNPD was conducted on 27 January 2023 to inform the FHPD project

**Rumson/Fair Haven Construction Official:** Meeting occurred on 24 January 2023 to ensure we aligned the new FHPD and Community Center effort based on standard operating procedure (SOP)

**Other Parking Solution:** Initial ideas raised to support potential other parking solutions

**Financial Discussion:** Meeting to be scheduled with Bond Counsel and Financial Advisor to discuss funding for FHPD (as well as DPW)

**JCPL:** Meeting w/ JCPL point of contact (POC) to occur week of 30 January to inform temporary service line

**Landmark:** A landmark is being considered at 35 Fisk Street

# FHPD: Licensed Site Remediation Professional (LSRP)

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On 26 January, CME confirmed its environmental assessment for the FHPD current site was complete

On 27 January, CME provided its formal assessment via three (3) documents

- Preliminary Assessment Report (PAR) (N.J.A.C. 7:26E-3.1 and 3.2 Requirement Based)
- Recommendations
- Geophysical Investigation Report

CME's assessment identified five (5) Areas of Concern (AOC); three of which require further investigation

- Underground Storage Tank (UST)
- Basement Floor Drain
- Parts Washer

Based on CME's assessment, there are two (2) immediate next steps

- Conduct a soil test to inform the extent of any possible UST leakage, and then remove the UST prior to demolition of the FHPD
- Conduct a test to investigate further the Basement Floor Drain and Parts Washer

CME's assessment also identified fourteen (14) total materials (out of 65) requiring engineering controls employed during removal to avoid potential asbestos fiber release



# FHPD: Gabel Associates Background

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Gabel Associates is an energy consulting company specializing in renewable energy projects for municipalities (recommended from The Goldstein Partnership (TGP))

The company unifies unique disciplines, to include economic, technical, regulatory, financial, and marketplace, to provide a robust environmental feasibility assessment

They've supported the development of over 250 renewable energy projects, with a specialized focus on solar assets

Their role includes support on all stages of development including feasibility studies and assessments; comprehensive economic, technical, and financial analysis and modeling; interconnection activities; preparation of request for proposals (RFPs) and proposal evaluation; contract drafting and negotiation; SREC/REC sales; and client representation/project facilitation activities during construction

The primary difference between Gabel Associates and “other” solar companies is that Gabel is not a solar vendor

- Gabel Associates is an independent energy consulting firm, vendor agnostic
- The team includes Certified Energy Managers, Certified Measurement and Verification Professionals, and Certified Energy Auditors, as well as planners, engineers, economists, and scientists

Gabel maintains active engagement with the New Jersey Board of Public Utilities (BPU) and directly involved in the current solar market transition activities that are underway at the BPU, including the development and implementation of the Administratively Determined Incentive (ADI) and the Competitive Solar Incentive (CSI) programs that are part of the Successor Solar Incentive Program (SuSI)

# FHPD: Gabel Cost & Timeline

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## TIMELINE

The deliverable for the study includes a PPT slide deck report that summarizes findings, results, and recommendations from the feasibility study (see Appendix E for feasibility study components)

Gabel will participate in a meeting with the GB to review the report prior to issuing a final version of the slide deck

The deliverable will be provided in approximately 2 to 3 weeks after contract execution and all required data is provided by Fair Haven

Gabel would engage with TGP early in the process to inform the redesign process

## COST

Gabel charges a fixed fee of \$4,500

To enable the most cost-effective means of this process, Gabel's review is to include Fair Haven Police Department (FHPD) and Community Center, Department of Public Work (DPW), and Borough Hall (BH)

If the GB decides to continue with a request for proposal process or the bonding process the cost of this study can be included in the project development costs and reimbursed to the Borough upon closing on financing or project agreement execution

- Costs above \$6,600 requires additional quotes/proposals

# FHPD: Redesign Background

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On 24 January 2023, TGP was informed the GB on 23 January agreed to move forward with generating a proposal for Option E (Police Department & Community Center w/ Public Restrooms) bid under a single General Contract (see Appendix F for Option E)

A list of requirements (based on GB discussions and presentations) were passed to TGP to initiate the redesign approval (see Appendix G for list)

A total of four DRAFTed documents were initially produced and reviewed by the Facilities Committee with 35 separate comments provided (ensuring alignment with the GB's expectations of communication, requirements, and cost-saving measures)

On 27 January, the updated DRAFT documents were provided for passage to the GB and GB Attorney

- FHPDFee Proposal for 2023 Version - Draft #2
- FHPD, TGP, Additional Services\_2023-01-27
- FHPDFee Breakdown for 2023 PD Buildings
- FHPDSchematic Site Plan of 012023 © 2023 TGP

# FHPD: Redesign Overview

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Outlines the overall project for a new estimated 6,650 square feet (sf) 1-story FHPD and a new 1,600 sf 1-story Community Center at 35 Fisk Street (current FHPD and Community Center remain throughout duration of construction)

The building will meet required energy standards, and reasonable cost-effective upgrades from those standards (LEED-like)

Designed in accordance with the recently-adopted 2021 Building Codes, including the ADA revisions as well as Stormwater Management Rules

A single electrical service on the site, feeding into the new FHPD, then running to the Community Center is preferred

All paperwork during construction will be managed via Oracle's Submittal Exchange (standard)

Virtual progress meetings to occur every two weeks during the one-month Schematic Phase, and monthly during the one-month Design Development Phase and two-month Construction Documents Phase (in addition to email and phone communications)

Building renderings generated from computer models are provided to support resident feedback and comment, and Planning Board engagement

The new FHPD and Community Center are to convey a "small town charm"

The construction is assessed to take 12-months with an additional two-months to then demolish the current FHPD and Community Center (and finish site work)

Cost comparison generated identifying the expected cost savings shifting from Option A to Option E, to include less overall sf, more space-efficient parking lot, less earthwork due to elimination of basement, and shorter construction period

# FHPD: Additional Supporting Redesign Details

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**Construction Administration:** Over the course of the expected 14-month project, TGP onsite at least 26 times (majority of time spent on “primary” 12-month construction period)

**Generator:** In consultation with the Rumson/Fair Haven Construction Official, TGP, and previous requirements, a Diesel generator is to support both the FHPD and Community Center (see Appendix H and I for Generator details)

- The current generator is a temporary, residential low-cost unit to potentially be repurposed to Bicentennial Hall

**Fire Suppression** (not required by code): Assuming the pressure is sufficient, the system can be expected to cost on the order of \$80,000 for FHPD (no additional costs for Engineer and Architect as long as identified as a requirement during the Schematic Phase)

**Not to Exceed:** Pending no changes, the professional service fee is a fixed rate and expected not to change

**American Institute of Architects (AIA):** The AIA produces the standard form of agreement (Document B101 – 2017) between an owner (Fair Haven) and architect (TGP), and includes all aspects of “Basic Services” (see Appendix J for list of components)

**Acoustics Consultation:** Provide design criteria to the Mechanical Engineer, both for the noise levels and octave band frequencies produced by the equipment, and for the sound absorbing panels that may need to be provided around the equipment

**Landscape:** List of Fair Haven native trees and vegetation to be leveraged to support landscaping

# FHPD: Professional Fee Cost Overview

<b>POLICE BUILDING</b>						
<b>FEE DISTRIBUTION</b>	<b>Schematic</b>	<b>Design Dev.</b>	<b>Const. Docs</b>	<b>Bidding</b>	<b>Const. Admin.</b>	<b>Total</b>
TGP	\$13,750	\$20,000	\$30,000	\$5,000	\$52,500	\$121,250
TGP (Coordination)	\$1,000	\$2,000	\$3,000	\$0	\$0	\$6,000
TGP (FFE)	\$0	\$0	\$0	\$0	\$0	\$0
Omdex (MEP)	\$4,500	\$6,000	\$12,000	\$1,500	\$4,500	\$28,500
Allan Klein, PA (Structural)	\$1,800	\$4,000	\$11,175	\$275	\$750	\$18,000
Frank H. Lehr Assoc. (Site / Civil)	\$3,950	\$11,050	\$6,700	\$1,000	\$10,500	\$33,200
K2 Audio (Acoustics)	\$0	\$2,500	\$0	\$0	\$0	\$2,500
Loring (Technology)	\$1,000	\$2,500	\$3,000	\$500	\$2,000	\$9,000
Frank H. Lehr Assoc. (Geotech)	\$1,800	\$0	\$0	\$0	\$0	\$1,800
PCM (Cost Estimator)	\$4,000	\$0	\$5,500	\$0	\$0	\$9,500
<b>Totals</b>	<b>\$31,800</b>	<b>\$48,050</b>	<b>\$71,375</b>	<b>\$8,275</b>	<b>\$70,250</b>	<b>\$229,750</b>
<b>COMMUNITY CENTER</b>						
<b>FEE DISTRIBUTION</b>	<b>Schematic</b>	<b>Design Dev.</b>	<b>Const. Docs</b>	<b>Bidding</b>	<b>Const. Admin.</b>	<b>Total</b>
TGP			\$10,700		\$4,250	\$14,950
TGP (Coordination)			\$1,400			\$1,400
TGP (FFE)			\$0			\$0
Omdex (MEP)			\$5,500	\$180	\$540	\$6,220
Allan Klein, PA (Structural)			\$1,500			\$1,500
Frank H. Lehr Assoc. (Site / Civil)			\$7,500			\$7,500
K2 Audio (Acoustics)			\$0			\$0
Loring (Technology)			\$0			\$0
Frank H. Lehr Assoc. (Geotech)			\$0			\$0
PCM (Cost Estimator)			\$0			\$0
<b>Totals</b>	<b>\$0</b>	<b>\$0</b>	<b>\$26,600</b>	<b>\$180</b>	<b>\$4,790</b>	<b>\$31,570</b>
<b>TOTALS FOR 2 BLDGS.</b>						
	<b>Schematic</b>	<b>Design Dev.</b>	<b>Const. Docs</b>	<b>Bidding</b>	<b>Const. Admin.</b>	<b>Total</b>
<b>Professional Fees (sum of 2 projects)</b>	<b>\$31,800</b>	<b>\$48,050</b>	<b>\$97,975</b>	<b>\$8,455</b>	<b>\$75,040</b>	<b>\$261,320</b>
+ Reimb. Expense Allowance	(including \$10,000 for misc. expenses plus \$10,000 for Submittal Exchange license)					\$20,000
<b>Total of Fees + Expenses</b>						<b>\$281,320</b>

FHPD	Cost	Total %
Schematic	\$31,800	13.84%
Design	\$48,050	20.91%
Construction Document	\$71,375	31.07%
Bidding	\$8,275	3.60%
Construction Admin.	\$70,250	30.58%
Total	\$229,750	100.00%

Community Center	Cost	Total %
Schematic	\$0	0.00%
Design	\$0	0.00%
Construction Document	\$26,600	84.26%
Bidding	\$180	0.57%
Construction Admin.	\$4,790	15.17%
Total	\$31,570	100.00%

Project	Cost	Total %
Schematic	\$31,800	12.17%
Design	\$48,050	18.39%
Construction Document	\$97,975	37.49%
Bidding	\$8,455	3.24%
Construction Admin.	\$75,040	28.72%
Total	\$261,320	100.00%

# FHPD: Proposed Schedule

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## Redesign – 4 Months (target February 2023 to initiate)

- Schematic Design (1 Month)
- Design Development (1 Month)
- Construction Documents (2 Months)

## Bidding – 1 Month

## Evaluate Bids & Finalize Overall Costs – 1 Month

- Building Construction (FHPD and Community Center)
- Site Work (Stormwater Regs, Demolition)
- Residential Aesthetics
- Landscaping
- Environmental Remediation (including removal of the underground tank and remediation of the building and site)
- Bonding Costs
- Furniture Costs
- Temporary Electric Service
- Off-Site Improvements
- Inspection Fees (although the Borough may choose to waive Bldg. Dept. fees, there are still testing fees (for concrete, steel, etc.) that the Borough will incur.)

- Relocation Costs (unless all work of moving from the existing building into the new buildings will be handled by Borough staff)
- Owner-Furnished Equipment (telephone system, etc. Note: The building will include conduits, but not wiring or equipment)
- Contingencies (including inflation allowance)
- Construction Management (if the Borough decides to retain one in conjunction with the construction of this project)
- EV Charging Provisions (beyond the “infrastructure” called for in the site design)
- Solar array (and associated engineering)
- Fire Suppression System

## Award & Contractor Mobilization – 1 Month

## Start Construction – September/October 2023

## Estimated Construction Time – 14 Months

## Estimated Construction Complete – Fall 2024/Winter 2025

# FHPD: Proposed Next Steps

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Finalize AIA

Execute Proposal

Begin Schematic Phase w/ Initial Call

- Target “Open House” soonest (w/ 3D renderings, internal walk-through, and adjacent parcels)
- Include Construction Official & Planning Coordinator

Detailed Project Plan

Begin Construction Manager Discussion

Identify Viable Parking Lot Solutions

Begin Financial Discussion

Request CME proposal to initiate next investigative efforts for 3 AOCs

Initiate feasibility assessment for solar

Identify costs associated with temporary JCPL electric service



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# Appendix

# Appendix A: DPW – AOC Overview

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## Stormwater Drywells

- Two stormwater drywells are located north and south of the DPW building.
- These stormwater drywells are considered an REC/AOC, as the potential exists for the release of petroleum products into the ground and/or groundwater.

## Heating Oil Tank

- The drawing “Replacement of Fuel Tanks” (prepared by T&M Associates dated August 1993) shows (in addition to the USTs to be removed) a “Fuel Oil Tank” adjacent to the oil-water separator.
- Since the DPW building is now heated by natural gas, this may be an unregulated heating oil tank used prior to natural gas.
- This heating oil tank is considered an REC/AOC, as the potential exists for the release of petroleum products into the ground and/or groundwater.

## Hydraulic Lift

- A hydraulic lift is in the truck bays area of the DPW building.
- This hydraulic lift was located near floor drains.

- This hydraulic lift is considered an REC/AOC, as the potential exists for the release of petroleum products into the ground and/or groundwater on the subject property.

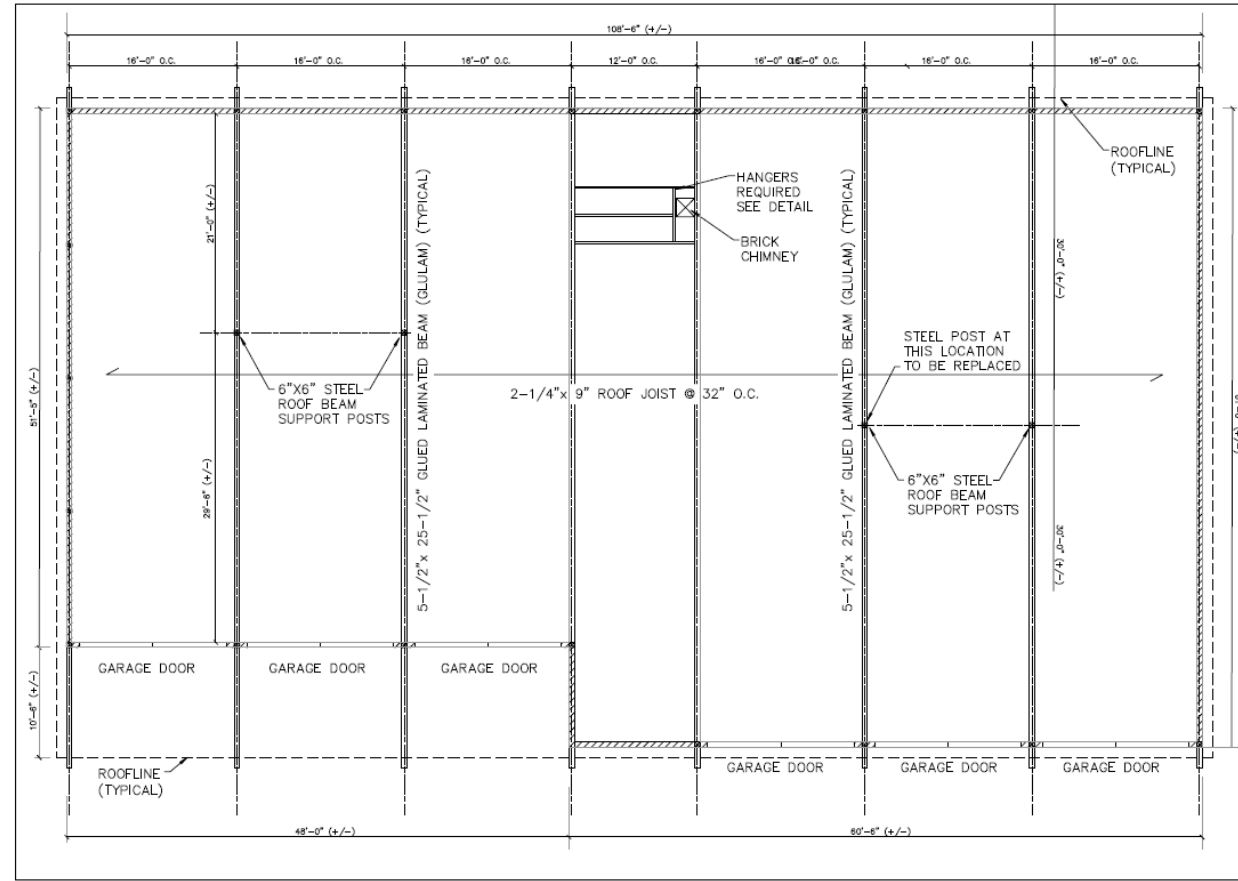
## Hazardous Material Storage & Handling Area

- Automotive fluids including oils and coolants are present in drums in the truck bays area.
- The drums were stored on shelves and directly on the concrete floor near floor drains.
- This hazardous materials storage is considered an REC/AOC, as the potential exists for the release of petroleum or chemical products into the ground and/or groundwater.

## Floor Drains

- Four floor drains are inside the truck bays area of the DPW building.
- These floor drains were plugged with concrete.
- Floor drains are considered an REC/AOC, as the potential exists for the release of petroleum or chemical products into the ground and/or groundwater.

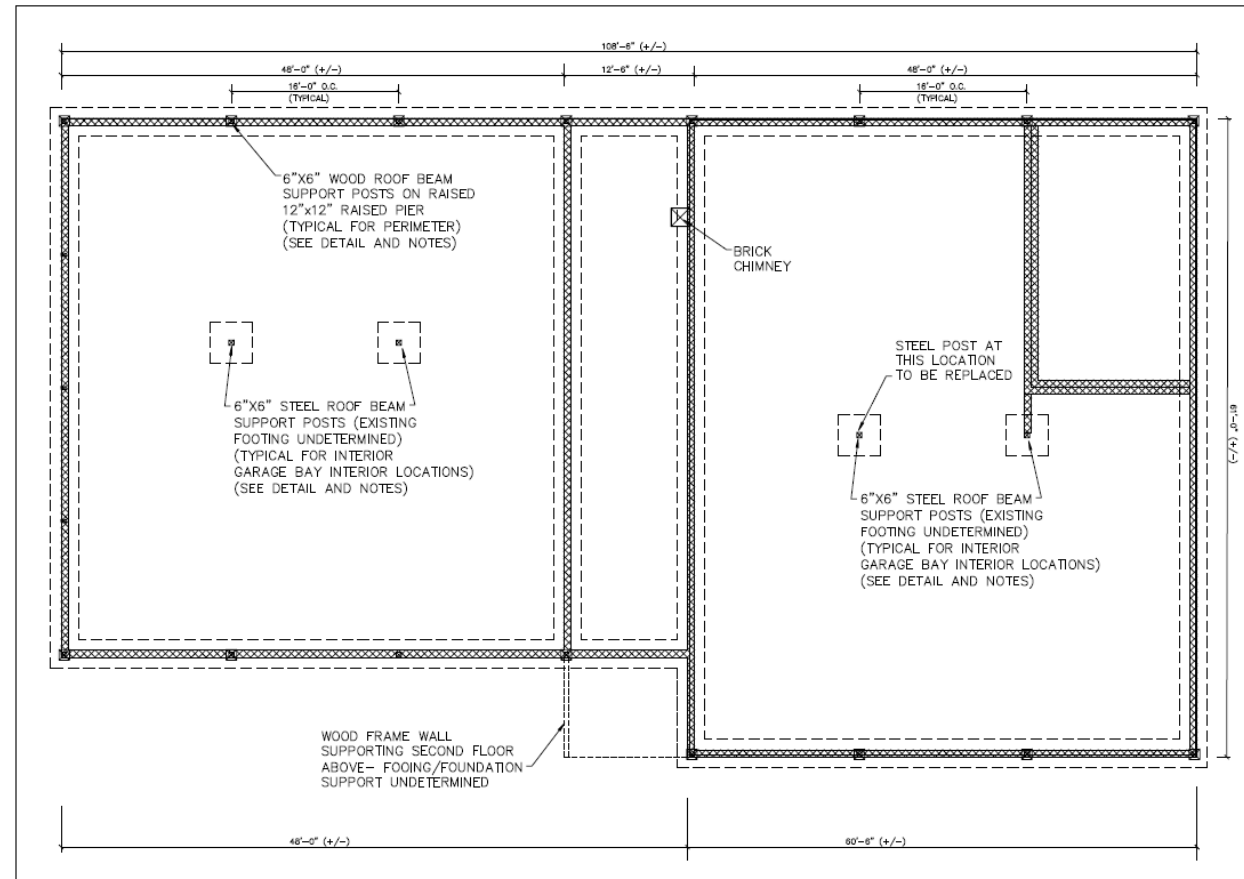
# Appendix B: DPW – Roof Framing Plan



ROOF FRAMING PLAN

1/8" = 1'

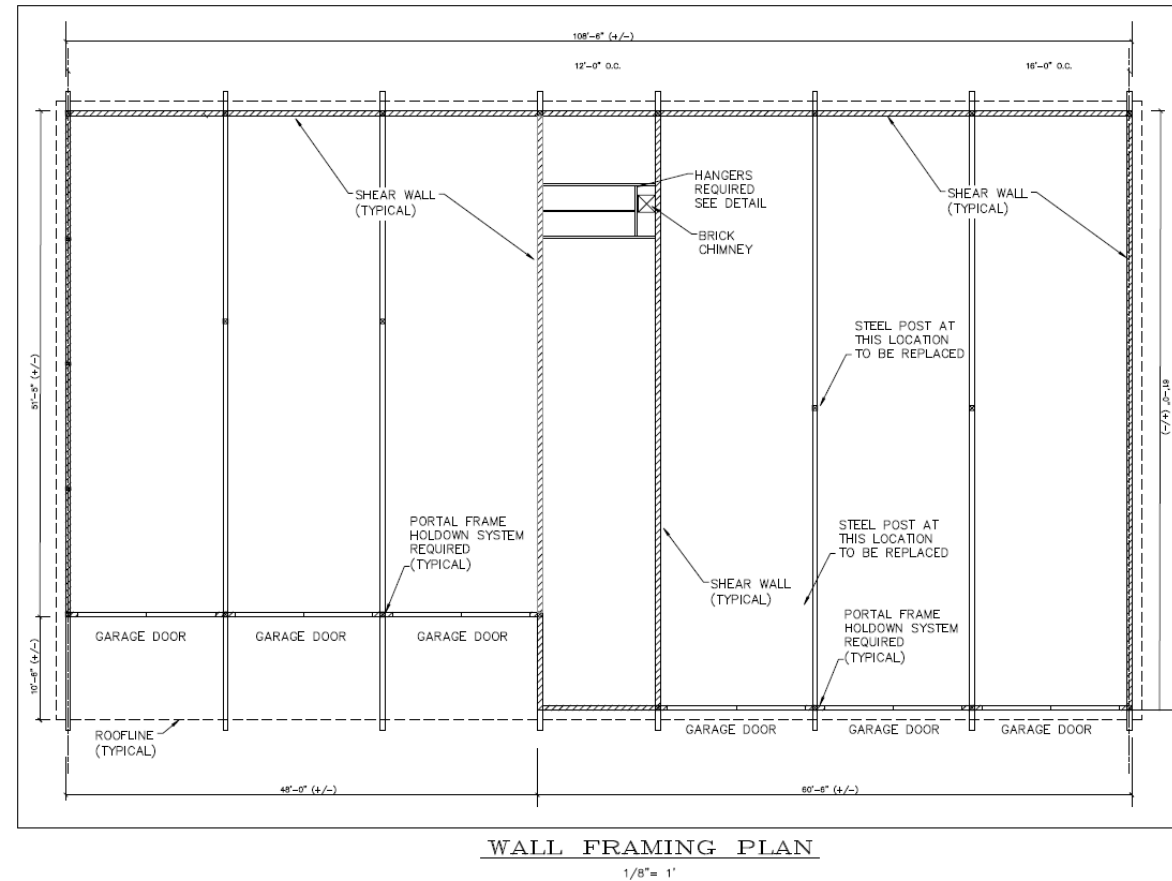
# Appendix C: DPW – Foundation Location Plan



FOUNDATION LOCATION PLAN

1/8" = 1'

# Appendix D: DPW – Wall Framing Plan



# Appendix E: FHPD – Feasibility Study

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Review the properties and available designs, including a site visit to each of the sites to assess any potential technical complications for the installation of a solar project

Assess the available locations for solar such as roof areas, ground areas, carports, and other canopies to identify the areas that are both technically and commercially optimal for development

Identify site-specific constraints to development, such as shading

Perform a visual inspection of the existing electrical service and a review of planned and new equipment

Review the local distribution utility hosting capacity map to assess the complexity and difficulty of interconnecting a behind-the-meter, on-site solar project

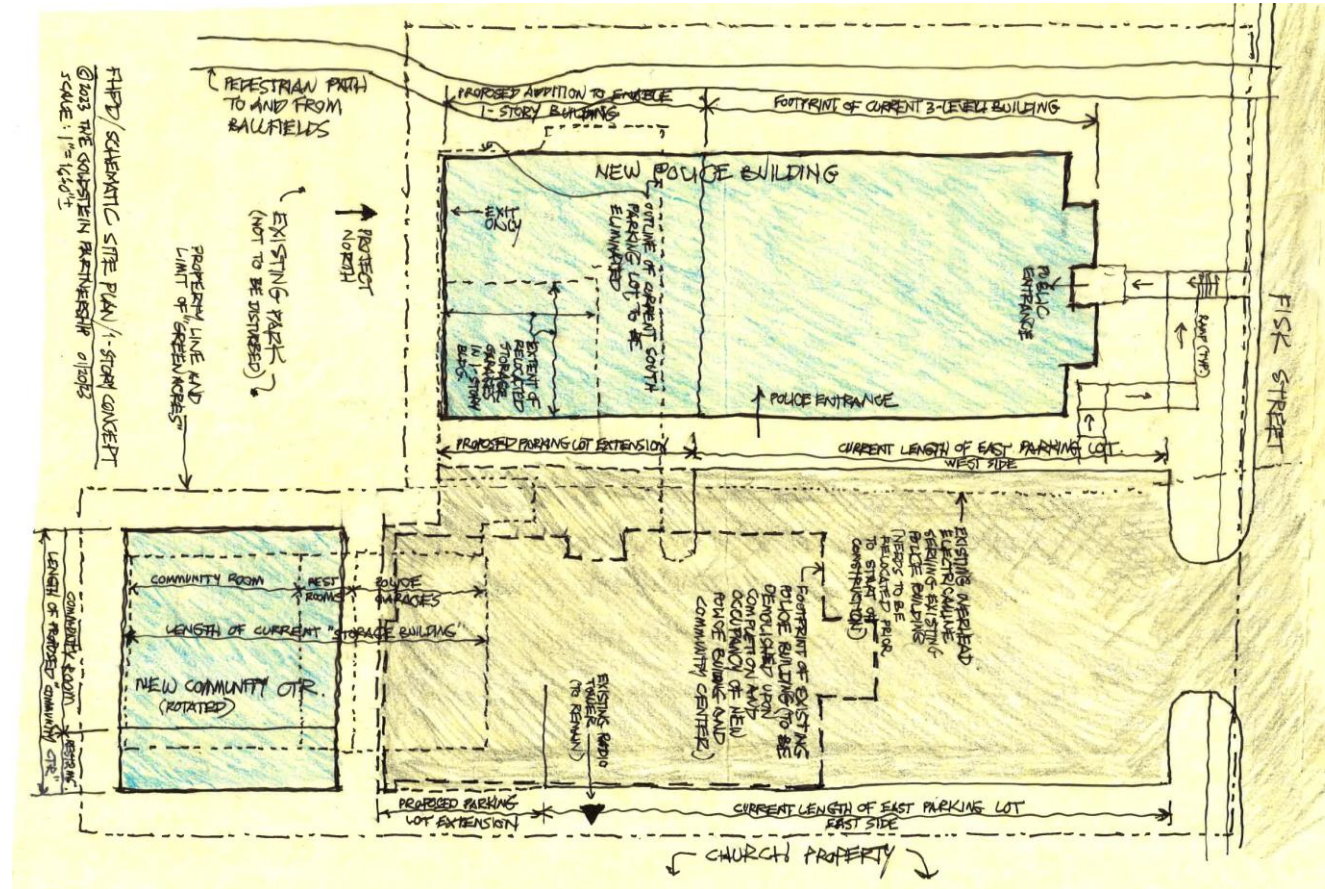
Develop high-level conceptual solar site plans

Identify the expected utility tariff structure and assist with estimating annual energy usage

Develop a high-level preliminary economic analysis of the solar projects identified in the technical feasibility analysis, including a review of available incentives and a comparison of different contracting options, such as a PPA or direct ownership

- This preliminary analysis will include a representative discounted cashflow analysis and avoided energy cost savings analysis that will use assumptions and general market trends to demonstrate the potential economic benefits

# Appendix F: FHPD – Option E



# Appendix G: FHPD – Initial Requirements

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Option E 1-story PD + Community Center w/ Public Restrooms

Inclusive of off-site improvements

LEED-Like (not LEED certification)

Meetings every 2-weeks to keep informed of progress

Certain review, design and decisions elevated to GB for approval

- Schematics Drawings & Rendering
- 3D Rendering & Elevations (support “Open House” for Resident Feedback)

Meeting w/ Rumson Construction Official

Single Point of Contact (POC)

Pedestrian path remains

Maintain prevailing setback of the building from Fisk Street

Base design from Program Requirements from 09 January 2023

1500 – 2000 sf in area for a solar panel array (pending feasibility assessment, to include cost benefit analysis)

Explore feasibility of using heavy timber framing, rather than structural steel

No Owner’s Representative throughout redesign process

Cost saving calculation from 2-story design (Option A) to 1-story (Option E)



# Appendix H: FHPD – Basic Architectural Service

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Initial Information

Architect's Responsibilities

Scope of Architect's Basic Services

- Schematic Phase
- Design Development Phase

Supplemental and Additional Services

Owner's Responsibilities

Cost of the Work

Copyrights and Licenses

Claims and Disputes

Termination or Suspension

Miscellaneous Provisions

Compensation

Special Terms and Conditions

Scope of the Agreement

# Appendix I: FHPD – Natural Gas Generator

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## ADVANTAGES

- The most favorable uses of natural gas as a fuel is that it is a cleaner energy source, less expensive than other fossil fuels, and is substantially efficient.
- Comparing natural gas to oil and coal, the amounts of sulfur, nitrogen, and carbon dioxide (a greenhouse gas) are considerably lower. Making natural gas one of the cleanest fossil fuels to burn.
- Natural gas does not produce a strong odor, which is common with generators powered by oil or diesel fuels.
- Natural gas generators are effective in reducing costs when used to power homes because electricity from utility companies tends to be more expensive.
- Aside from being cleaner burning and cheaper to buy, natural gas is also handy in large cities because it is delivered directly through underground pipelines to the source where it is needed. For this reason, when using natural gas powered generators, there is no need in having fuel storage tanks.

## DISADVANTAGES

- One of its advantages can also be regarded as a disadvantage. Since natural gas does not need to be stored, as it is usually supplied through pipelines to the site of the business or company, during times of a disaster or accident, the flow of natural gas may be temporarily interrupted. Finding yourself with a lack of fuel when you need power to operate your equipment during an outage and when the regular supply of electrical power is down, can be a major concern for keeping your business running, until that power is restored.
- Natural gas can be extremely explosive and can be a grave fire hazard should something happen to the pipeline.

# Appendix J: FHPD — Diesel Generators

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## ADVANTAGES

In comparing a natural gas powered generator, the diesel generator is far more efficient for several reasons such as:

- Diesel engines used today are far improved versions of older models that were extremely noisy and took a lot more time to maintain
- Diesel engines are more heavy duty and dependable
- Another advantage diesel has over natural gas engines is that they do not use spark plugs or wires; helping on repair and maintenance savings
- The life expectancy of a natural gas engine is not as long as that of a diesel equivalent
- Being less flammable than other types of fuels, diesel generators score high on being safer to use. They don't use spark plugs or wires, which eliminates the chance of a spark causing a fire

## DISADVANTAGES

A diesel generator can be more expensive to purchase compared to other types. But, since the upkeep of a diesel generator can be quite a bit lower, it more than makes up for it after the generator is initially purchased.

Noise is a big issue with a diesel type of generator. While newer models are getting quieter, the older versions can still be a bit noisy. Diesel generators that are used in and around larger populations may also be too noisy for residents around the vicinity of these units.

Diesel generators are large and cumbersome and have large mechanical and electrical systems that are part of the unit. As opposed to smaller and lighter generators, diesel generators are usually not very portable and user friendly.

Given the recent trend of cleaner energy fuels and less greenhouse gases, diesel is considered a major cause of heavy pollution in most major cities and towns where it is used.