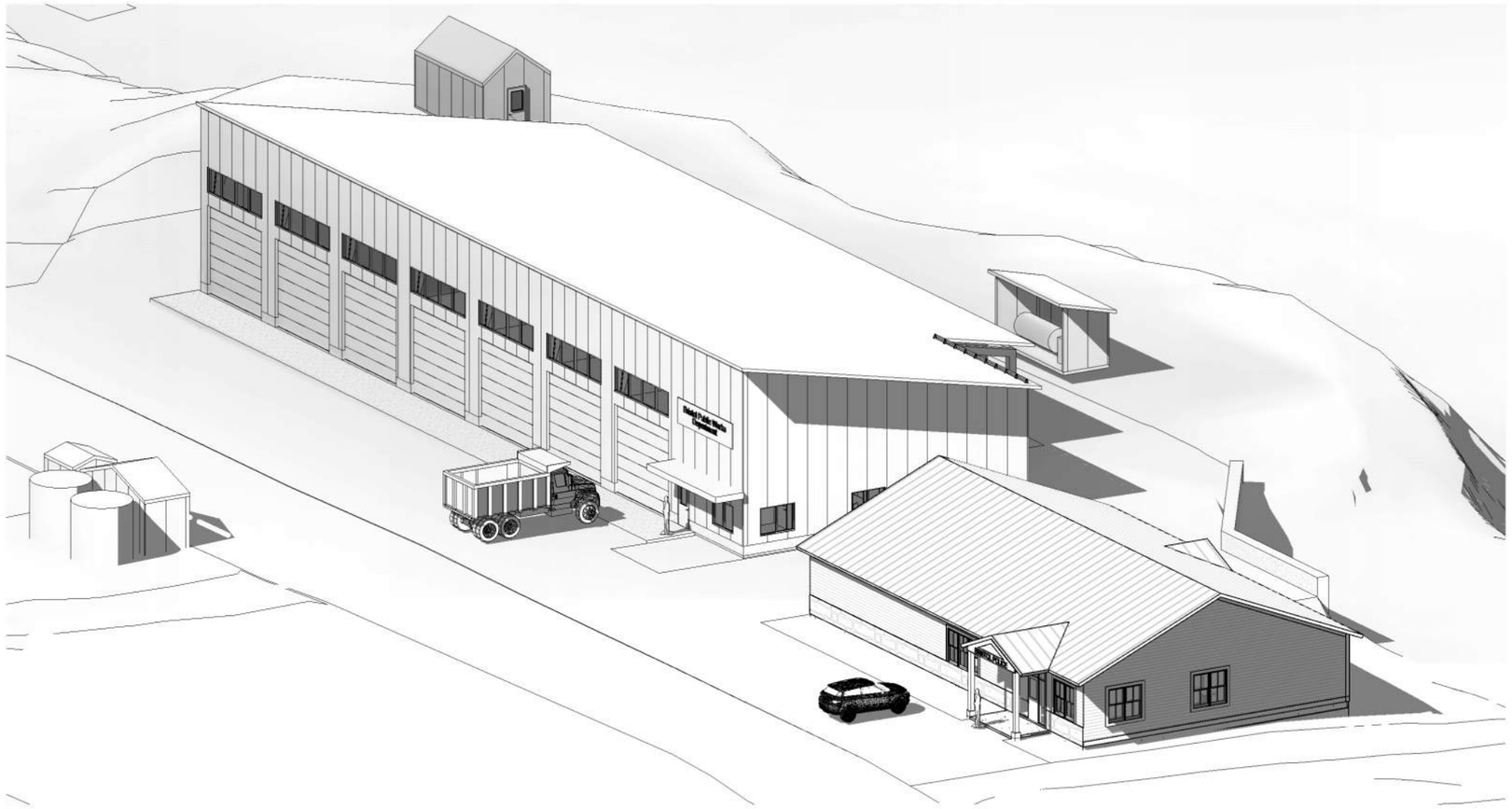


TABLE OF CONTENTS:

	Page
Existing Site Conditions	2
Existing Site Circulation	3
Existing Site Review	4,5
Potential Site Development	6
Program and Needs Assessment - DPW	7,8
Program and Needs Assessment - Police	9
Development Considerations	10
Development Options Analysis	11
Development Plan Option A (separate buildings)	12
DPW Garage Plan Option A	13
DPW Exterior Elevations and Section Option A	14
Police Department Plan Option A	15
Development Plan Option B (combined buildings)	16
DPW Garage Plan Option B	17
Police Department Plan Option B	18
Exterior Elevatons Option B	19
Salt & Sand Shelters Plan	20
Sand Shelter Views	21

Concept Design Draft Review Package

Bristol Public Works and Police Dept. Building Site and Needs Analysis

BreadLoaf Architects Planners Builders

LOCATION MAP

Graphic Scale: 1 inch = 80 feet

0 80' 160' 240' 320'

Existing Site Conditions

Bristol Public Works and Police Dept. Building Site and Needs Analysis

CONCEPT DESIGN

10/29/2020

BreadLoaf
Architects
Planners
Builders

Circulation Notes	
A	Access to recreation trail loop, septic maintenance, and lower lot
B	Grader, Loader, Truck 1 and 2 storage access
C	Truck diesel refueling space
D	Access for public-use sand stockpile
E	DPW employee parking, 3-5 spaces
F	Truck 3 and 4 and Kabota tractor storage access
G	Access to plow storage yard and monitoring wells
H	Access for solar development, landfill monitoring, and miscellaneous DPW stockpiles
I	Saturday recycle and trash queue route and hauler parking. Note that since Pine Street is a dead end, this loop is also required as a turnaround for emergency vehicles per Zoning Ordinance 720, item 12. 50ft turning radius for fire trucks indicated.
J	Metal pole at end of asphalt pavement may indicate legal end of Pine St. R.O.W.?
K	Gravel unloading access. Gravel may be relocated to lower lot if new Sand Shelter replaces stockpile area below.
L	Emergency egress easement access must be maintained to Mt. Abe Middle/High school property.
M	Sand delivery access. Not needed if sand shelter provided in "pit" are below.
N	Access to Sand Shelter will displace access to stockpiles.
O	Access to salt loading-unloading, sand and gravel loading, and rip-rap loading and unloading. Potential brine and cold-patch storage access.
P	Lawson Lane entrance onto Pine shown per plat. Red dashed lines indicates entry location per aerial photo.

Graphic Scale: 1 inch = 80 feet

0 80' 160' 240' 320'

Existing Site Circulation

Bristol Public Works and Police Dept. Building Site and Needs Analysis

CONCEPT DESIGN

10/29/2020

BreadLoaf Architects Planners Builders

EXISTING CONDITIONS REVIEW NOTES:

BLC toured the project site and facilities Sept. 18, 2020 with DPW and Town staff. From this visit and further discussions and correspondence the following site conditions were noted:

1. The upper portion of the northern lot abutting Pine St., including the two vehicle storage garages, old salt shed, dog pound, and other storage sheds includes an undefined area of unsuitable fill (organic matter and miscellaneous refuse) between Pine St. and the steep embankment to the north. Settlement of the west end of the 2-bay "green" garage was noted.
2. The capped landfill on the lower portion of the northern lot is slated for development into a solar generating complex, and access thru the site will need to be maintained for this project. Three phase power is proposed to be run down Pine St. from Munsill Ave. to support this project and may be available for the proposed Town development on the upper lot. DPW also continues to utilize the lower lot for miscellaneous stockpiles of materials needed during emergency repairs.
3. There is an emergency access easement with the MAUSD school district from the end of Pine St. to the Mt. Abraham Middle/High School property that must be maintained due to the school's status as an emergency shelter.
4. Trash collection and Recycling occurs every Saturday and the hauler and customer vehicular circulation on the site must be maintained.
5. Town municipal water is available on Pine St. and currently runs to the two garages.
6. The Grey Garage has a permitted septic tank with a leach field on a lower plateau behind the Green Garage. The older Green Garage has a cesspit in poor condition.
7. The southern lot "pit" area where the current Salt Shed and Leanto are located is a depressed excavated bowl on a separate parcel owned by the Town. This area does not have a surface path for water to drain; it drains by infiltration into the gravel sub-base (as is the case for much of the Village). This area tends to pond and become muddy during freeze-thaw cycles when storm water does not infiltrate.
8. Sand is stockpiled in the "pit" along with gravel and rip-rap. Approx. 4000cy of sand are stockpiled in the summer/fall for use over the entire winter season. This sand is often wet during delivery and becomes saturated and frozen, and a shelter for this material is needed to allow it to dry. Fabric and concrete block shelters used by surrounding towns were mentioned as an appropriate solution. The gravel and rip-rap stockpiles could be relocated to the lower landfill lot if new development area is needed in the "pit".
9. 1989 "Grey" 2-bay Garage:
    a. The building houses Trucks 3 and 4 and a Kabota tractor. Depth is not adequate for trucks with mounted plows to be parked without impacting the far wall and requiring staff to climb over plow to go around the vehicle and access the emergency exit. Wing plows must be chained up in the air as there is not adequate side clearance to drop them to rest the hydraulics. Headroom is not adequate to place the trucks on lifts for repairs, nor raise beds full height for lubrication. Storage space is very limited.
    b. Office area does not have legal headroom, nor adequate space for break functions, filing, and utilities. Upstairs kitchenette "mezzanine" is not accessible by a legal stair, nor ADA accessible and is currently not used and in poor condition. Restroom is not ADA accessible and in poor condition.
    c. Hazardous material storage is not separated from rest of garage by walls or haz mat cabinets.
    d. Slab and trench drain have settlement issues. Floor drain must be hand shoveled to remove sand build up, as it connects to a grease interceptor pit which daylights in the bank north of the building.
    e. Building exterior is in fair condition, with interior finishes in need of repair. Walls have R21 fiberglass batts, and R38 cellulose in attic. Metal roof and siding appear sound.
    f. Power fed from overhead line to pole by scale house. This line has been struck by trucks in the past. It would be preferred to have any overhead power running thru the site buried in future development proposals. Single phase, 200amp service.
    g. No exterior windows except glass lites in overhead doors. Overhead doors are motorized and functional in fair condition.
    h. No ventilation system. Propane-fired unit heater. No vehicle exhaust system. Electric domestic hot water heater.
    i. 3/4" water line.
    j. Air compressor system is undersized for need.
10. 1960's era "Green" 5-bay Garage:
    a. The building houses Trucks 1 and 2, grader, loader, and includes a bay for repairs and parts storage. Many of the same dimensional issues as the grey garage with limited access room around equipment and storage items and limited headroom.
    b. Oil fire furnace with ducted supply and return in good condition and functional. No ventilation system or vehicle exhaust system. Welding exhaust fan is provided. Domestic hot water heater.
    c. Restroom is not ADA accessible and in poor condition.
    d. Exterior metal roofing and siding are in need of replacement. No exterior windows except in glass lites in overhead doors.

e. Interior is unfinished plywood panels. Walls have R21 fiberglass batts and R38 fiberglass in attic.
f. Overhead doors are too narrow for current equipment; jamb and door damage is evident.
g. 2” water line. Air compressor size is adequate but 50 years old. Single phase, 200amp service from pole at Pine St. east entrance.
h. Hazardous materials, including used oil storage, DEF diesel fuel treatment, hydraulic fluid, and other chemicals are not separated from the bays or located in haz mat cabinets.
i. A recessed service “pit” is provided in the eastern most bay, with unknown drain outlet or oil separation.

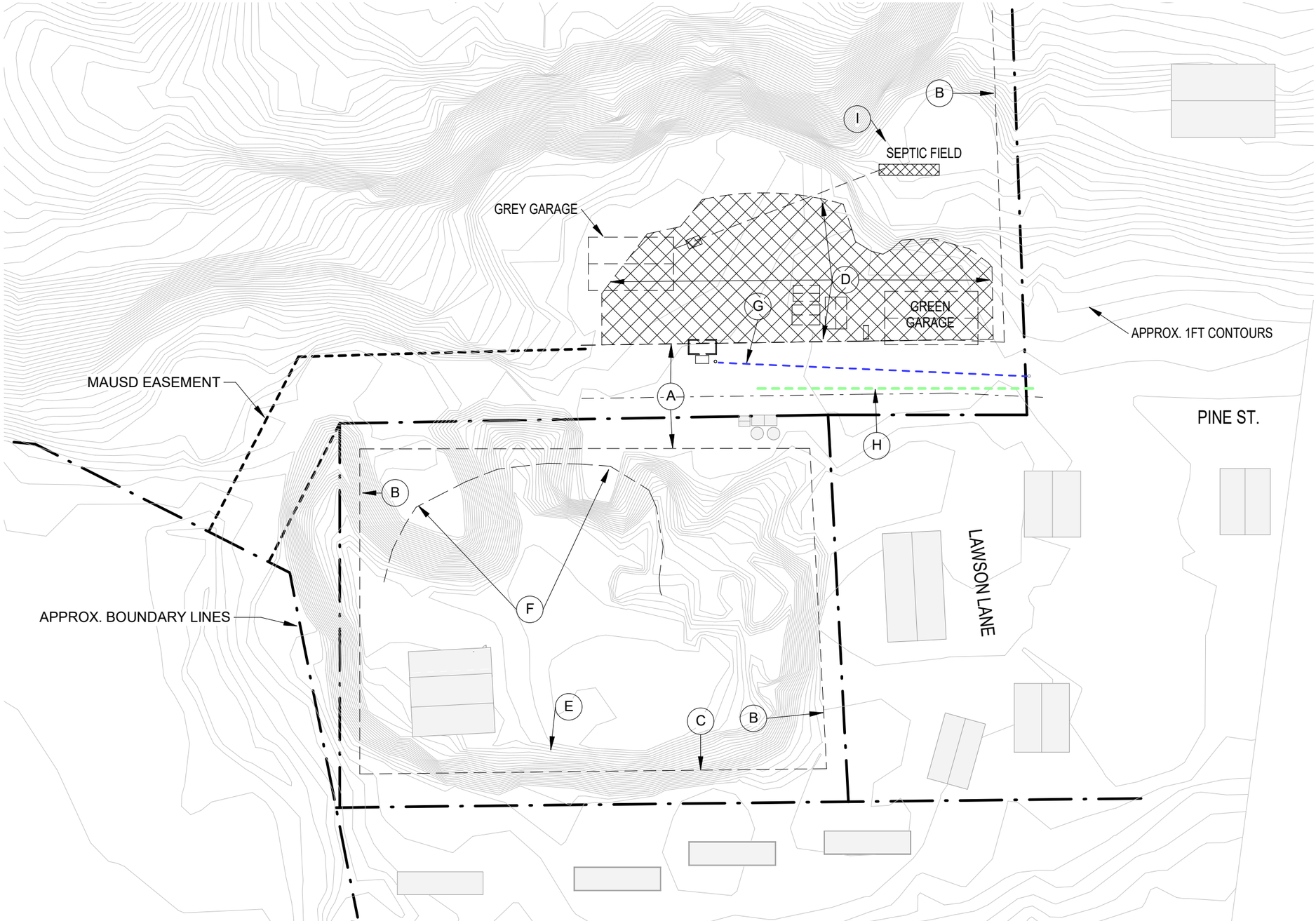
11. Original salt Shed: Wood framed structure on concrete blocks in poor condition. Currently used for tire storage not available elsewhere, and for asphalt cold-patch repair material, which must be reheated in winter.
12. Dog Pound: Currently unused and apparently deemed unsuitable by the local veterinarian. This program space is still needed, and a suitable structure and location determined.
13. Baling Shed: Metal clad utility structure originally used to bale recycling. Now used for miscellaneous storage. In fair, functional condition.
14. Diesel fueling station: Above ground 4’dia. x 10ft diesel tank with unfinished plywood shelter over fueling end.
15. Used Oil Storage Shed: Metal clad utility structure in fair condition. Continues to be used to supply fuel for oil furnace and provide for town recycling of used motor oil.
16. Chloride Tanks: (2) 3000gal. HDPE tanks with a chain link enclosure. Used for brine production.
17. Landfill Scale House: Unused building originally containing the scale readout equipment, in very poor condition. Scale has been removed, the 20’ x 10’ foundation has been buried in place.
18. Warming hut: Fishing shanty type structure brought on site on skid by trash hauler for use during Saturday trash and recycling collection.
19. 2010 Salt Shed with 2012 Leanto Addition: Wood framed and siding structure with metal roof on concrete foundation in good condition. In addition to salt, it is used to store brine trailer, John Deere tractor, an excavator, and highway painting and signage equipment. Single phase power is fed overhead from a pole on the south boundary with the mobile home park. The easement associated with this power line has not been researched in this study.
20. Miscellaneous structures: Includes a long-bed box trailer, a steel shipping container, and an old Town Information booth.
21. Site stockyards: Snowplow storage, miscellaneous trailers, road repair materials (culverts, etc.).
22. Large gate at east end that fully blocks Pine St. is not used. Access to lower “pit” lot controlled via padlock and cable to two steel posts.

Site Review Documents: In addition to information included in the Town’s 1/08/2020 Request for Proposal, the following documents pertaining to the site were reviewed for this analysis:

1. Town of Bristol and Union High School District No. 28 (now MAUSD) boundary and easement survey dated 10/14/2014 by Ken Weston, L.S.
2. Plat dated 5/17/2005 and Wastewater plans dated 11/16/2004 for Lawson Lane sub-development (former Hammond Property) by Tyler Hart, P.E., L.S.
3. Landfill site mapping dated 01/19/2016 by Green Mountain Engineering, and 05/16/2006 by KAS Consulting, Inc.
4. Vermont Waste Water permit WW-9-0079 drawings, test pit logs, and supporting information for the existing 1989 Grey Garage septic field.
5. Vermont Lidar topography, aerial photography, GIS mapping and parcel information available online at maps.vcgi.vermont.gov
6. Proposed Acorn Energy solar generating development site plan C2-02 dated 07/01/2020 by Trudell Consulting Engineers.

Site Review Limitations:

1. No sub-surface investigations were conducted, and building conditions noted are observational only. No structural analysis or concealed condition demolition was conducted.
2. No title or deed search work was conducted by BLC.
3. Available boundary information is not consistent with tax and parcel mapping along the east boundary with Lundie property and at the south-east corner near the Lawson Lane entry to Pine St. These boundaries should be confirmed thru further title and deed research and field surveying.
4. The legal western extent of Pine Street and easement across the north parcel to provide frontage and access the south parcel and power utility right-of-way remains to be determined. A 40ft. setback from the center of existing Pine St. pavement running along the southern edge of the northern parcel has assumed to meet the Zoning Ordinance.
5. Topographic and site utility information is approximate and combined from several sources. A full topographic and utility survey of any proposed development area on the parcels is recommended.
6. A Phase I Site Environmental Survey and for hazardous materials should be conducted, and a Phase II survey conducted if deemed necessary.



Development Notes	
A	40ft. Front yard setback from Pine St. centerline per Zone VM-Village Mixed
B	15ft. Sideyard setback
C	25ft. Rear yard setback
D	Hatched area: Approx. low slope building zone. Upper 4.5ft of material assumed to be fill based on information from waste water permit test pits.
E	Appproximate toe of steep "bowl" depression banks
F	Approx. toe of "bowl" depression slope when sand and gravel stockpiles are removed. New sand shelter could be placed in this area when levelled.
G	Utility poles and overhead power lines located in Pine St. R.O.W. or in private easement with GMP?
H	2" Galv. water main (per Lawson Lane Plat and Waste Water Permit)
I	Septic field permitted for 3 employees only.

Graphic Scale: 1 inch = 80 feet

0 80' 160' 240' 320'

Potential Site Development

Bristol Public Works and Police Dept. Building Site and Needs Analysis

CONCEPT DESIGN

10/29/2020

BreadLoaf Architects Planners Builders

DPW GARAGE BUILDING PROGRAM

Department of Public Works - Bristol, VT

Preliminary Program v1.0 w Existing Spaces

Department of Public Works Facility		Current Facility Area		Desired Program Area			Conceptual Plan 10-05-2020			
Program Component	Space/Name	Existing Size (FT)	Existing Area(NSF)	Size (FT)	Area(NSF)	Over or Under Existing Facility	Size (FT)	Area (NSF)	Over or Under Program	NOTES
Exisitng Buildings										
Green Barn - Equipment Maintenance Garage										
5 Bays - Repairs, Grader, Loader, Trucks #1 & #2		70' x 40'	2800	(5) 20'x50' bays	5000	2200	(5) 20'x50'	5000	0	
						0			0	
Gray Barn - Equipment Maintenance Garage										
2 Bays - Kabota, Trucks #3 & #4		60' x 40'	2400	(2) 20'x50' bays	2000	-400	(2) 20' x 50'bays	2000	0	
						0			0	
Subtotal Equipment Maintenanace Garage			5200		7000	1800		7000	0	
Other Outbuildings										
Dog Pound Building		12' x 20'	240	no change	240	0	no change	240	0	
Salt Shed and Addition		40' x 60' + 20' x 60'	3600	no change	3600	0	no change	3600	0	
Waste Oil Collection		9' x 18'	162	no change	162	0	no change	162	0	
Truck Scale and Scale House		7' x 10'	70	demo	0	-70	demo	0	0	
Fuel Tank		10' x 16'	160	no change	160	0	8'x20'	160	0	added DEF dispenser at tank
Old Salt Shed		16' x 22'	352	demo	0	-352	demo	0	0	
Old Recycle Shed		14' x 22'	308	demo	0	-308	demo	0	0	
Chlorine Storage Tanks (2) 3,000 GAL				no change			no change			
						0			0	
Subtotal			4892		4162	-730		4162	0	
Sub-Total Exisitng Buildings			**10092**		**11162**	**1070**		**11162**	**0**	
New DPW Garage Building										
General Garage Bays (6)				see above		0	see above		0	
Maintenance / Wash Down Bay with Lift (1)				see above		0	see above		0	
JDeere / Kabota / Excavator / Pickup Bays		in leanto		(4) 20x16 bays	1280	1200	(4.5) 20x16bays	1326	46	
Parts Storage Room		on mezz		8x8	64	64	10x10	100	36	
Haz Mat Storage		in bays		TBD		0	9x10	90	90	
Office/Work Area		8x10	80	No change	100	20	12x11	135	35	
Entry / Coats		in break room		TBD			8x11	85	85	
Break Area with Kitchen		10x10	100	20x20	400	300	17x19	320	-80	
Restroom with Shower		6x6	36	8x10	80	44		73	-7	
Bunk Room			0	10x10	100	100	10x10	172	72	
Mech Room		on mezz		TBD		0	10x10	100	100	
Stair							9x10	90	90	
Mezz Mech / Storage / Parts		combined	348		348	0		866	518	
Total New DPW Garage Building			**5764**		**9372**	**3608**		**10357**	**985**	1st floor net total 9491
New Sand Shelter				4000cy			62x150	9300		
Total DPW (NET SF)			**15856**		**20534**	**4678**		**21519**	**985**	
NET to GROSS SF Multiplier			0.15	Multiplier	1.28	Multiplier			Multiplier	
Total DPW (GROSS SF)			**2302**	**GSF**	**26284**	**GSF**			**GSF**	

OTHER DPW PROGRAM NEEDS:

OTHER DPW PROGRAM NEEDS:

Site Program Needs:

1. Sand Shelter to accommodate 4000cy. A fabric structure with concrete waste block foundation is preferred, similar to those constructed for the towns of Starksboro and Monkton.
2. Stockyard space for plow storage, road repair and other materials.
3. Parking for 5 employees (1 per employee required by Zoning). 1 or 2 Parking spaces for recreation trail visitors.
4. Full-time access to the public-use sand stockpile placed in the upper lot.
5. Standby Generator with fuel storage on concrete pad.
6. Trash and Recycle Dumpsters properly screened.
7. Heating Fuel and or Condenser locations
8. Access Gate(s) appropriately placed to allow access for public and other easement grantees but to control access to DPW materials.
9. Vehicle circulation area similar to current configuration for Saturday trash and recycling collection.
10. Updated Dog Pound building. Dog pound structure requires a water line, and heat (currently provided by gas space heater connected to propane tank).
11. Diesel re-fueling station with DEF fluid dispenser, with weather protection and meeting current code requirements. Re-fueling is typically done at end of day before vehicles are parked, and access is typically from the driver side.
12. Compliant on-site septic and stormwater treatment.

Other Building Program Needs:

1. A new development scheme should consider consolidating garage operations while keeping current operations running during any proposed construction activities.
2. Radiant heat is preferred to melt snow / ice from returning vehicles.
3. Air conditioning is preferred in Break Room and Offices.
4. Vehicle Lift (possibly portable) to handle 80,000 lbs.
5. Wash Bay and Repair bay may be combined if appropriate splash protection for tools and work space is provided.
6. Building ventilation per code and to mitigate high moisture levels from snow / ice melt and washing operations.
7. Overhead steel hoist beam in Repair bay to allow for hoist install.
8. Break Room needs full kitchen.
9. Space for 2 sleeping bunks.
10. New, adequately sized air compressor system.
11. MIG and Stick welders and ventilation.
12. 3ph electrical service to allow for new equipment loads.
13. Oil furnace could possibly be relocated to Salt Shed lean-to to allow for brine production and cold patch storage if John Deere tractor and other leanto storage are moved to new building.
14. Space for adequate parts storage.
15. Highway sign, painting, and construction safety equipment storage.
16. Space allocated for plow blade hanger racks.
17. Plow truck and earthmoving equipment overhead doors preferred 16ft. wide and 14ft. tall. Starksboro’s doors are 14ft wide x 14ft tall.
18. Windows for natural daylight.
19. Hazardous material storage and containment room.
20. Two-way radio equipment and antennas.

POLICE DEPARTMENT BUILDING PROGRAM

Police Station - Bristol, VT
Preliminary Program v1.2 w Exisitng Spaces

Public Safety Facility		Current Facility Area		Desired Program Area			Conceptual Plan 10-6-2020			
Program Component	Space/Name	Exisitng Size (FT)	Exisitng Area(NSF)	Size (FT)	Area(NSF)	Over or Under Existing Facility	Size (FT)	Area (NSF)	Over or Under Program	NOTES
Police Department										
	Chief's Office	13' x 15' - 6"	202	10' x 12'	120	-82	10x12	120	0	
	Supervisor's Office	N/A	0	10' x 10'	100	100	9x8	93	-7	
	Patrol Room/Open Conference Area/Training	16' x 15' - 6"	248	22' x 16'	352	104	17x21	367	15	Accommodate Conference Table for 6 - 8 people, 5 - 7 Workstations at 4 LF each
	Radio/Work Area	14' x 7'	98	14' x 7'	98	0	8x11	103	5	Radio/Work Area is in hallway/circulation
	Male & Female Locker Area (Gender Neutral Space)	N/A	0	12' x 12'	144	144	7x16	109	-35	Accommodate 12 Lockers
	Changing Rooms (2)	N/A	0	2 @ 11' x 7'	154	154	11x7	160	6	Accommadate Toilet, Lav and Shower
	Armory	N/A	0	9' x 6'	54	54	6x10	56	2	CMU not required; Accommodate smal discharge chamber
Subtotal Police Administration			548		1022	474		888	-134	
	Sallyport (2 Bays)	25' - 2" x 18'	453	25' x 22'	550	97	(2) 13x22 ea	634	84	Shower, Mop Sink and 10 FT wide OH doors; Separate bays; Provide for vehicle wash down
	General Storage	N/A	0	12' x 10'	120	120	10x11	109	-11	
	Process Room	8' - 8" x 9' - 8"	84	9' x 10'	90	6	9x14	230	140	
	Holding Cell	8' x 7'	56	2 @ 7' x 7'	98	42	(2) 8x10	130	32	Provide Dention Toilet/Sink w Remote Flush Control; CMU not required
	Evidence Room	11' - 10" x 12'	142	12' x 12'	144	2	7x19	96	-48	
	Property Storage, Secured File Storage and IT	10' - 6" x 12'	126	10 x 12'	120	-6	8x12	165	45	
	Interview Room	8' - 7" - 5' - 4"	46	9' x 6'	54	8	6x11	68	14	Space doubles as Juvenile Holding
Subtotal Policing Area			907		1176	269		1432	256	
Sub-Total Police Administration and Policing			**1455**		**2198**	**743**		**2320**	**122**	
Common Areas										
	Lobby	6' - 4" x 8' - 6" + 13' - 6" x 8	162	14' x 10'	140	-22	13x10	155	15	
	Conference Room/Work Area	19' x 9" -8"	184	16' x 12'	192	8	12x15	194	2	Locate adjacent to Lobby, Public Restroom and Break Area; Accommadate 4 - 6 people at table.
	Break Area	11' - 8" x 6' - 10"	80	10' x 8'	80	0	7x11	73	-7	Break Area is in hallway/circulation
	Public Restroom	6' - 10" x 7' - 8"	52	7' x 7'	49	-3	7x8	58	9	
	Mech Elec Room/Maintenance	N/A	0	10' x 8'	80	80	9x10	149	69	
	Janitor	N/A	0	N/A			4x7	28	28	
Total Common Area			**478**		**541**	**63**		**474**	**-67**	
Total Police Station (NET SF)			**1933**		**2739**	**806**		**2794**	**55**	
NET to GROSS SF Multipiler			1.19 Multiplier		1.28 Multiplier			Multipier		
Total Police Station (GROSS SF)			**2302 GSF**		**3506 GSF**			**GSF**	Exisitng Gross Area = (50' - 6" x 47') - (18' x 4')	

SITE PROGRAM: Parking for 5 vehicles. Standby Generator (review reuse of existing vs. new). OTHER PROGRAM: Radio communications equipment, CCTV in holding and interview rooms. Facility serves as Town Emergency Operations Center backup space.

DEVELOPMENT CONSIDERATIONS:

1. Development area on the upper lot plateau may be potentially limited by Pine St. easements or rights-of-way still under review, by the steep filled bank to the north, and the zoning requirement to provide an emergency vehicle turn-around at the Pine St. dead-end. The design of this turnaround would typically be reviewed and approved by both the Vermont Fire Prevention Division, and the Bristol Fire Marshall. This might involve a turning radius of up to 50ft without requiring vehicles to perform a back-up maneuver.

2. The soils on the available development area are of questionable bearing capacity, and are noted to be unsuitable for a depth of 60” in the area of the waste water permit test pits conducted in 1989 between the garages. Anecdotal information and evidence of settlement in the 1989 garage suggests that this is concern across the upper plateau. A full geotechnical study may be required and depending on the results, it may require a sizeable effort to remove these soils down to native materials and then backfill and compact with materials capable of supporting required building loads.

3. Locating a new police facility closest to the east Pine St. exit would expedite travel in and out of the site and shorten the dead-end distance from the Liberty St. intersection.

4. Renovating and placing additions on existing DPW garages will not consolidate operations, address bay spacing or depth issues, nor address height restrictions for repairs and maintenance. Extensive renovations and additions to the existing garages may trigger structural code upgrades to meet current snow, wind, and seismic loading requirements, and full electrical, mechanical, and plumbing upgrades are needed to meet code in both garages.

5. While a new addition might be added to either garage to consolidate the facility, adding to the 1989 two-bay garage with the settlement issues does not seem prudent, and adding to the 1960s garage would create a facility boxed in by a steep bank to the rear and the recreation path to the east, and limit placement of the police facility to the western end of the upper plateau.

6. If new development displaces the diesel re-fueling station, a location out of any discovered right-of-way or easement along Pine St. should be considered, as it would conflict with boundary and easement setbacks required by code for locating these facilities, (ref. NFPA 30) and block use of the road by others during refueling operations.

7. Proposed renovations, new buildings or additions should allow for continued use of existing facilities until new work areas are ready for occupancy.

8. The current septic treatment field is permitted for 3 employees. With 5 DPW and 5 Police employees, a engineering review of treatment expansion options will be necessary.

9. New development fire suppression limitations: Per the building code, the separate or combined building proposals are not large enough to require fire suppression sprinkler systems. If a fire suppression system is desired for any other purpose the 2” water main along Pine St. would need to be enlarged to a point where adequate flow could be obtained.

10. Extension of 3 phase power from Munsill Ave. down Pine St. associated with the landfill solar development prior to the start of this project is assumed, but should be confirmed.

11. The disposition and final location of the Dog Pound requires further discussion.

12. While there appears to be adequate area to place a 62’ x 150’ Fabric Sand Shelter in the south parcel, maneuvering zones for equipment traffic outside the structures are tight. It was noted at a 10-29 meeting on site that the rip-rap and gravel stockpiles could possibly move to the lower lot to make room for this shelter. A topo study will need to be reviewed by the civil engineer to determine a stable slope ratio for the remaining banks that remain after the stockpiles are moved.

13. No modifications to the oil storage building, the chloride tanks, or the recycling warming hut are currently noted as desired by the Town, but may warrant consideration.

DEVELOPMENT OPTION A NOTES (SEPARATE NEW DPW GARAGE AND POLICE STATIONS):

Remove existing upper lot structures and consolidate DPW program needs in a single facility. Provide a separate Police facility. Provide new Sand Shelter

Pros:

1. DPW and Police structural sections can be configured separately to the most efficient and appropriate geometries.
2. Building materials (wood vs. long span steel) and building appearance can be considered independently, instead of being considered one building.
3. Sally Ports are located out of view of neighbors.

Cons:

1. Maneuvering space into Police Sally Ports is adequate, but not comfortable.

DEVELOPMENT OPTION B NOTES (COMBINED NEW DPW GARAGE AND POLICE STATION):

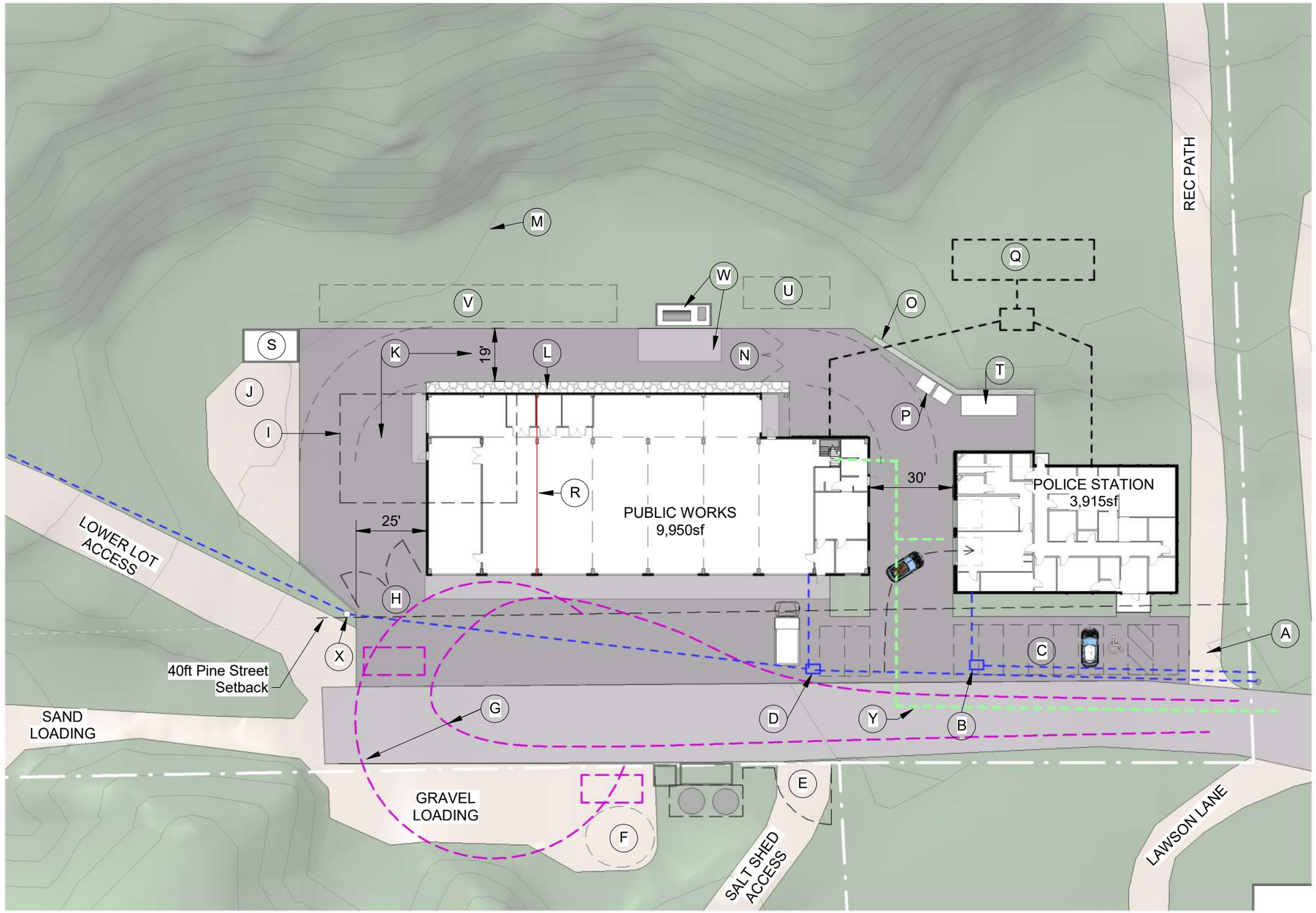
Remove existing structures and consolidate DPW program and Police program into a single facility, built in phases. Provide new Sand Shelter.

Pros:

1. Some potential savings in building a single adjoining wall instead of two exterior walls. Some of this savings may not materialize if the two programs are built in phases, as a temporary outside wall finish would be needed for the garage until the police structure is constructed.

Cons:

1. Traffic flow around structure is longer, and all users must travel further to reach Pine St. from the north side of the building.
2. Potential sound transfer between structures.
3. Police structure height and size is suitable for wood framed construction, but to might want to be built to match appearance of long-span steel garage.
4. Differing structural geometries may dictate that a movement joint be placed between them. The dis-similar geometries also do not mesh together well visually.
5. The shared walls reduce the available daylight perimeter for both programs, so spaces with windows must move to perimeter with available daylight.
6. Shared mechanical and electrical services are not ideal with the differing building occupancy schedules and uses types. If built in phases two electrical services and mechanical systems will still likely be needed.
7. Difficult to find shared program between the uses, so overall program footprint is similar to cost of Option A.



Option A Notes	
A	Recreation path access maintained.
B	New transformer mounted on existing pole, with new undground power and pull-box to new police station electrical room.
C	10 Shared parking spaces
D	Existing utility pole to be removed. Install new pole transformer on existing pole at entry and run new underground power with pull-box to new garage.
E	New gate to salt shed area
F	Relocated public-use sand stockpile
G	50ft. emergency vehicle turning radius. Saturday trash and recycle loop and parking maintained in existing configuration.
H	New gate to rear stockyard
I	Approx. footprint of existing 2-bay garage. Existing 4-bay garage located approx. near new police building footprint (not shown for clarity).
J	New gravel on geomat at stockyard
K	New paved circulation loop and rear stockyard
L	Rip-rap drip bed under drip eaves.
M	Approximate 5ft topographic contours.
N	New gate to rear stockyard
O	Waste concrete block retaining wall
P	Shared waste-and recycle dumpsters.
Q	New shared septic tank and expanded septic field.
R	Line of possible Phase 1 / Phase 2 construction to allow existing garage to operate until after winter season, depending on construction schedule. Older garage demolition and Police Station construction would occur after full garage is complete.
S	Relocate and renovate existing dog pound structure. Location maximizes distance from neighboring properties.
T	Shared standby power generator and AC condenser pad
U	Location for shared fuel storage tanks if needed.
V	Stormwater infiltration area if needed.
W	Diesel and DEF refueling station with metal lean-to shelter and concrete containment pads
X	Power lines for new solar developement run underground from Pine Street pole thru pull-box to new pole location, then run overhead to solar equpment on lower lot.
Y	New water service extended from existing street main.

Graphic Scale: 1 inch = 40 feet

0 40' 80' 120' 160'

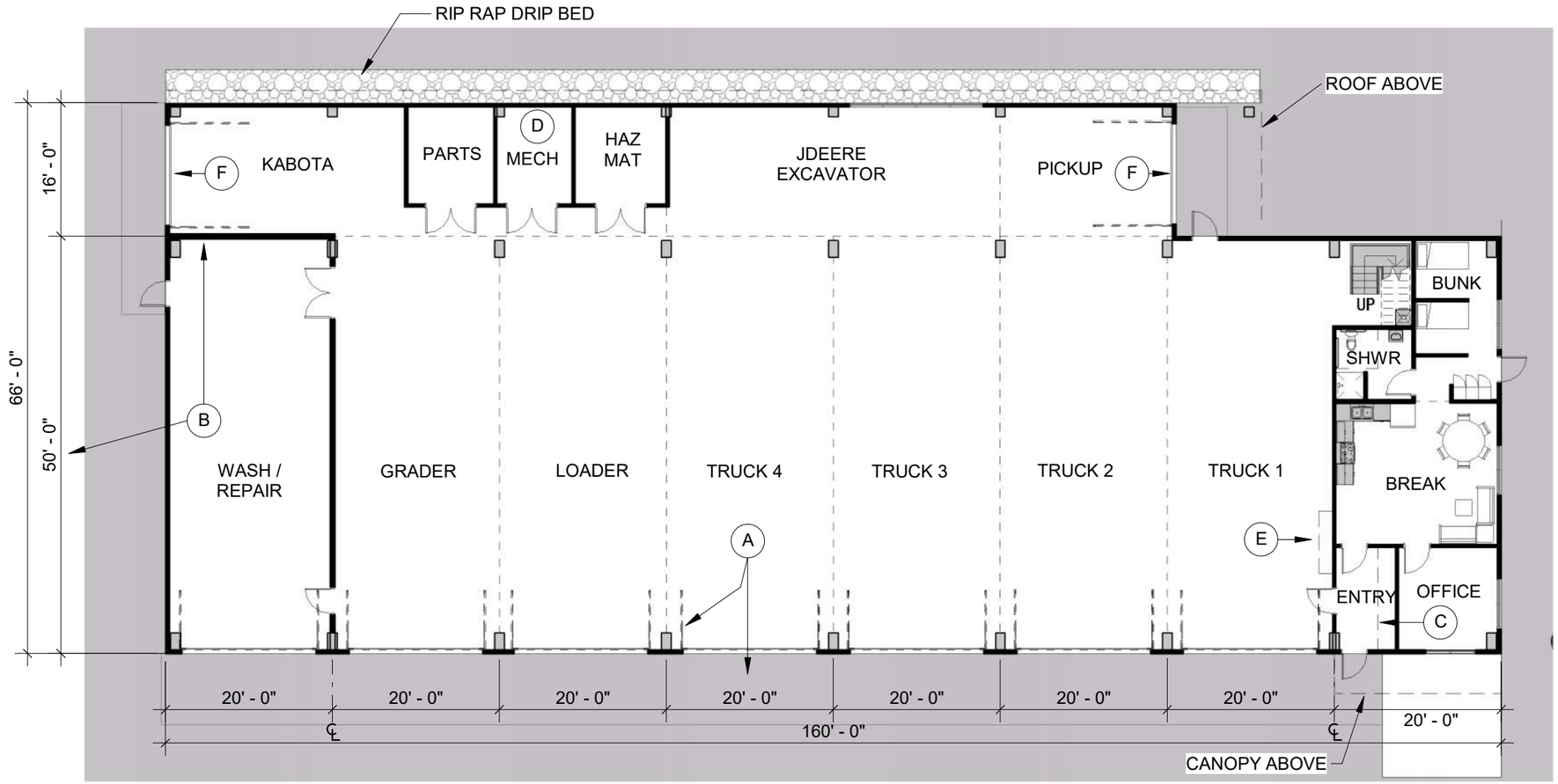
Development Plan Option A

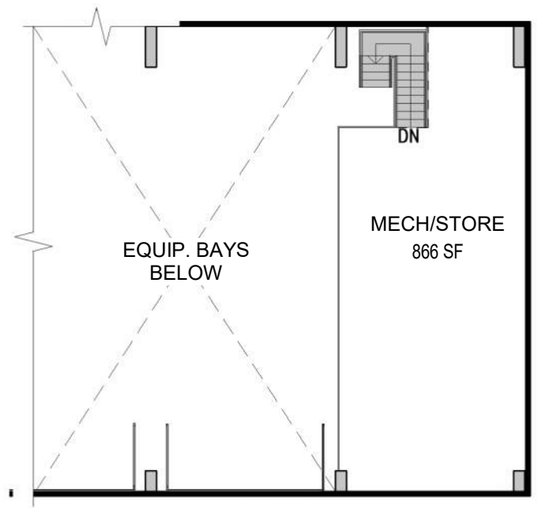
Bristol Public Works and Police Dept. Building Site and Needs Analysis

CONCEPT DESIGN

10/29/2020

BreadLoaf Architects Planners Builders





Mezzanine Plan

DPW Garage Plan Notes	
A	20ft bay width based on Starksboro Garage. 16ft wide x 14ft overhead doors typical along south wall.
B	Bay depth = current garage depth + 10ft. extension for plows and misc. storage.
C	Bench with coats hooks above and boots below
D	Radiant heat boiler only for slab. Other mechanical on mezzanine
E	Main electrical distribution center
F	12w x 12h overhead door

Graphic Scale: 1 inch = 16 feet

0 16' 32' 48' 64'

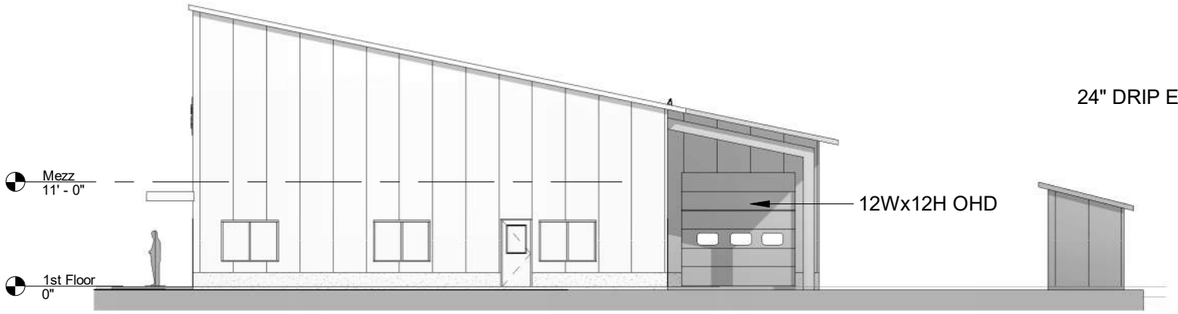
DPW Garage Plan Option A

Bristol Public Works and Police Dept. Building Site and Needs Analysis

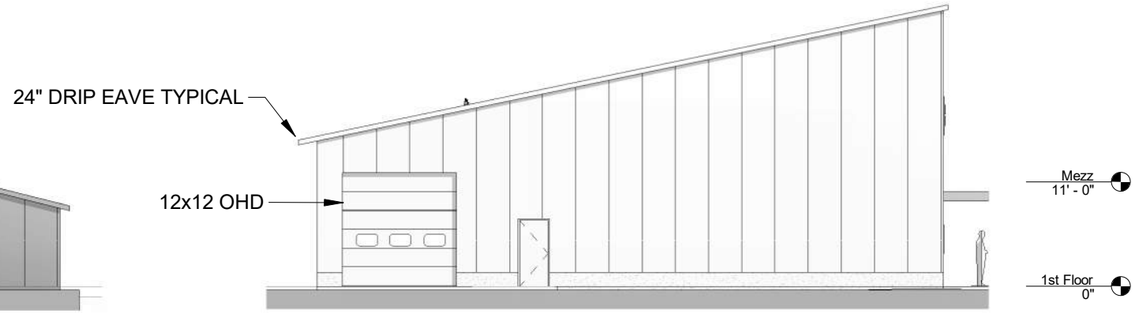
CONCEPT DESIGN

10/29/2020

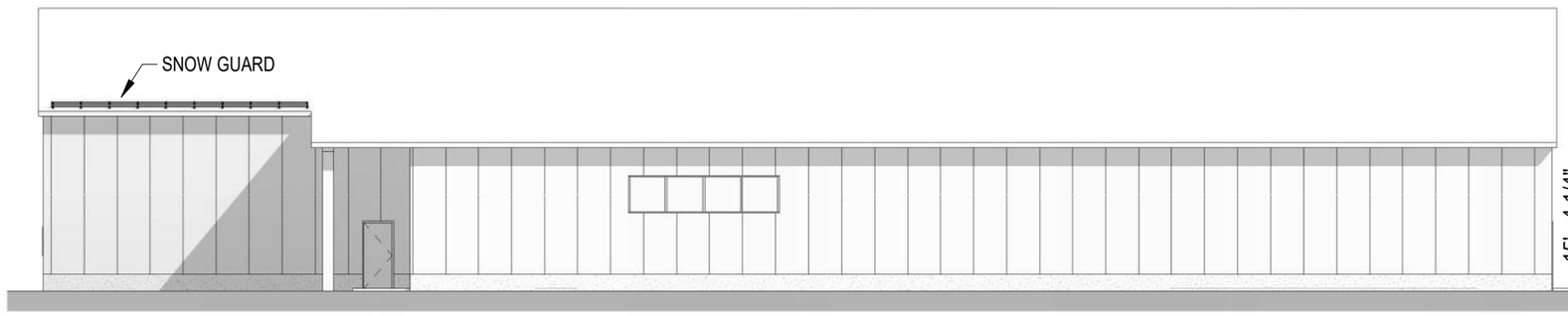
BreadLoaf Architects Planners Builders



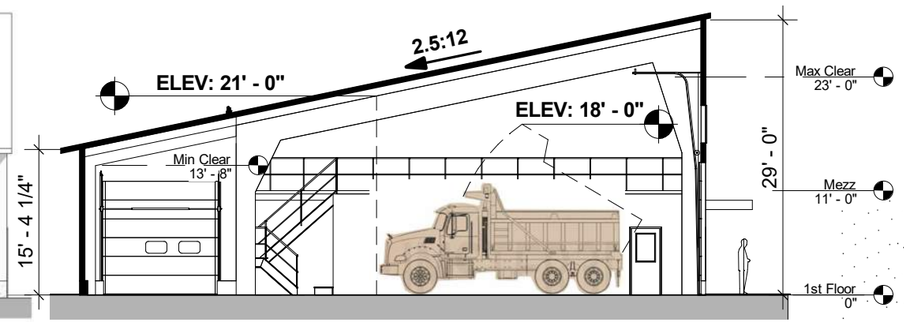
East Elevation



West Elevation



North Elevation



Garage Building Section

South Elevation

Graphic Scale: 1 inch = 16 feet

0 16' 32' 48' 64'

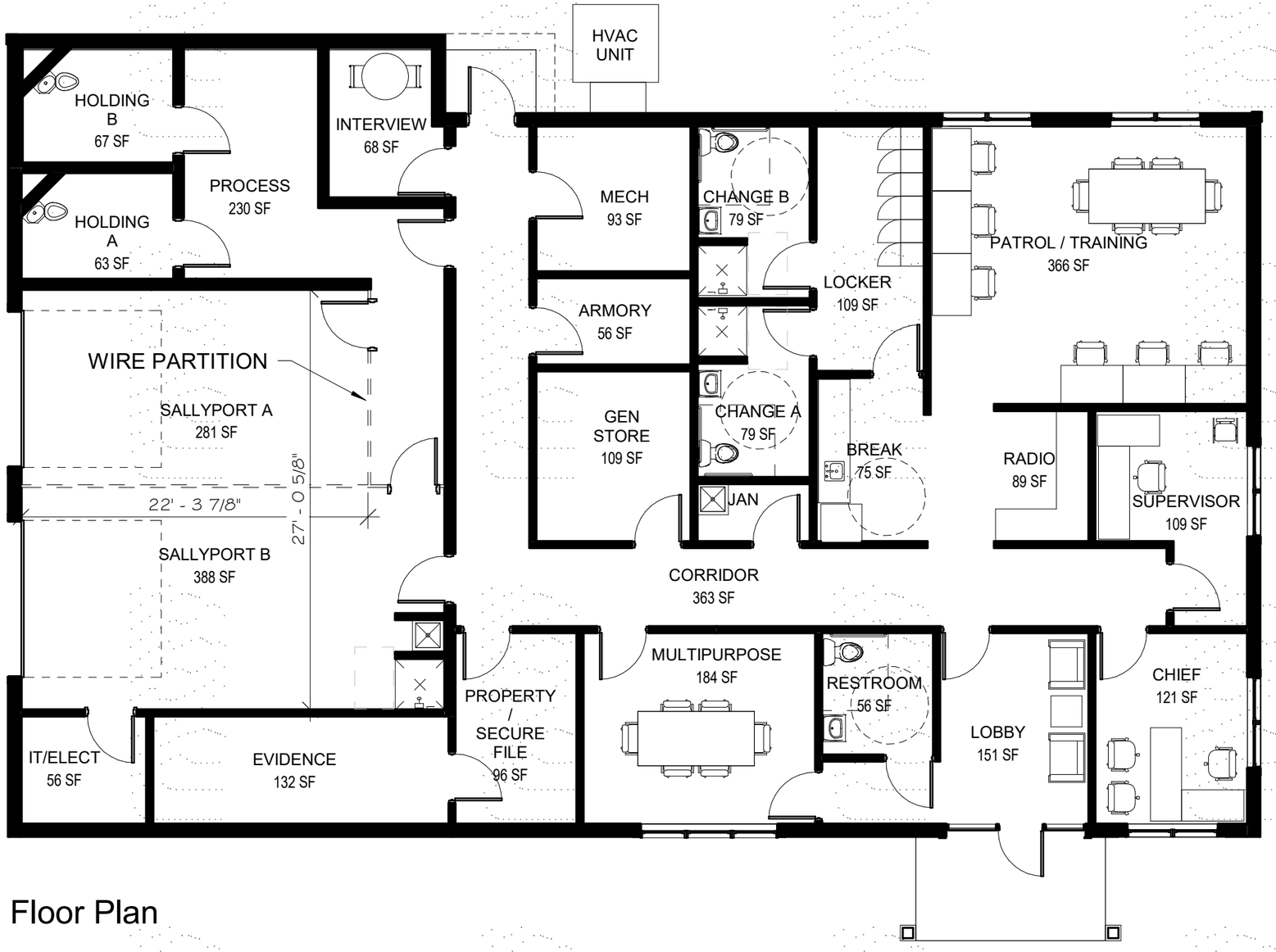
DPW Exterior Elevations and Section Option A

Bristol Public Works and Police Dept. Building Site and Needs Analysis

CONCEPT DESIGN

10/29/2020

BreadLoaf Architects Planners Builders

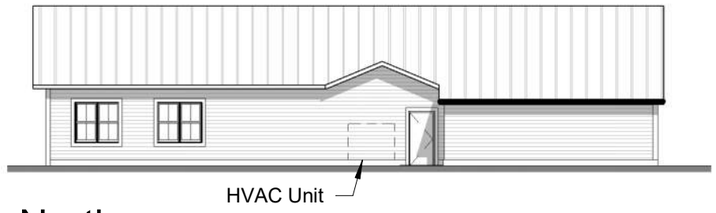


Floor Plan

Graphic Scale: 1 inch = 8 feet

0 8' 16' 24' 32'

South



North

East

West

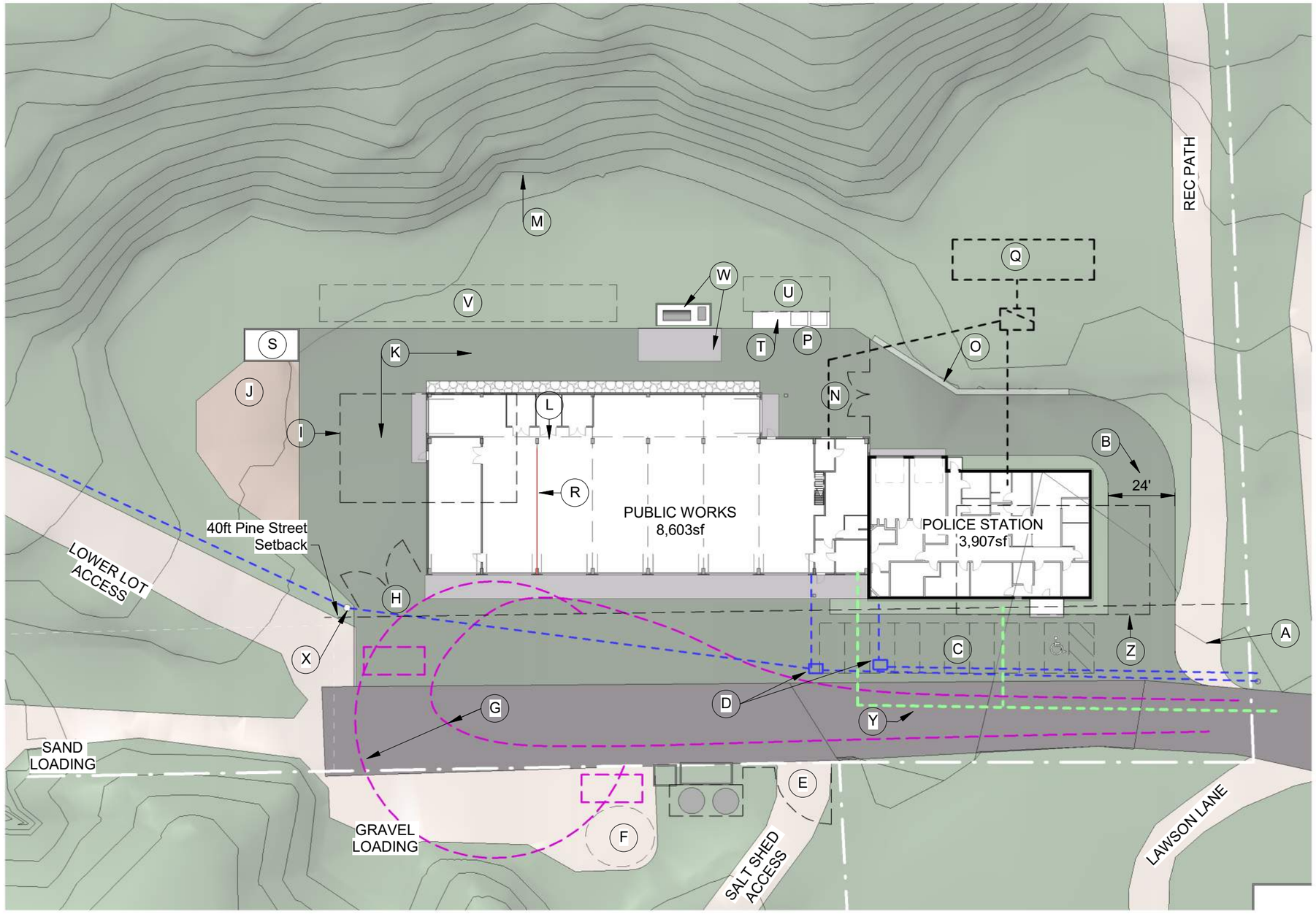
Police Department Plan Option A

Bristol Public Works and Police Dept. Feasibility Study

CONCEPT DESIGN

10/29/2020

BreadLoaf Architects Planners Builders



Option B Notes	
A	Recreation path maintained
B	New paved drive for police circulation to rear sally ports, and DPW rear yard and refueling access.
C	10 Shared parking spaces
D	Existing utility pole to be removed. Install new pole transformer on existing pole at entry and run new underground power with pull-boxes to DPW and Police.
E	New gate to salt shed area
F	Relocated public-use sand stockpile
G	50ft. emergency vehicle turning radius. Saturday trash and recycle loop and parking maintained in existing configuration.
H	New gate to rear stockyard
I	Approx. footprint of existing 2-bay garage. Existing 4-bay garage located approx. near new police building footprint (not shown for clarity).
J	New gravel on geomat at stockyard
K	New paved circulation loop and rear stockyard
L	Rip-rap drip bed under drip eaves.
M	Approximate 5ft topographic contours.
N	New gate to rear stockyard
O	Waste concrete block retaining wall
P	Shared waste-and recycle dumpsters.
Q	New shared septic tank and expanded septic field.
R	Line of possible Phase 1 / Phase 2 construction to allow existing garage to operate until after winter season, depending on construction schedule. Older garage demolition and Police Station construction would occur after full garage is complete.
S	Relocate and renovate existing dog pound structure. Location maximizes distance from neighboring properties.
T	Shared standby power generator and AC condenser pad
U	Location for shared fuel storage tanks if needed.
V	Stormwater infiltration area if needed.
W	Diesel and DEF refueling station with metal lean-to shelter and concrete containment pads
X	Power lines for new solar developement run underground from Pine Street pole thru pull-box to new pole location, then run overhead to solar equpment on lower lot.
Y	New water service extended from existing street main.
Z	Existing garage footprint

Graphic Scale: 1 inch = 40 feet

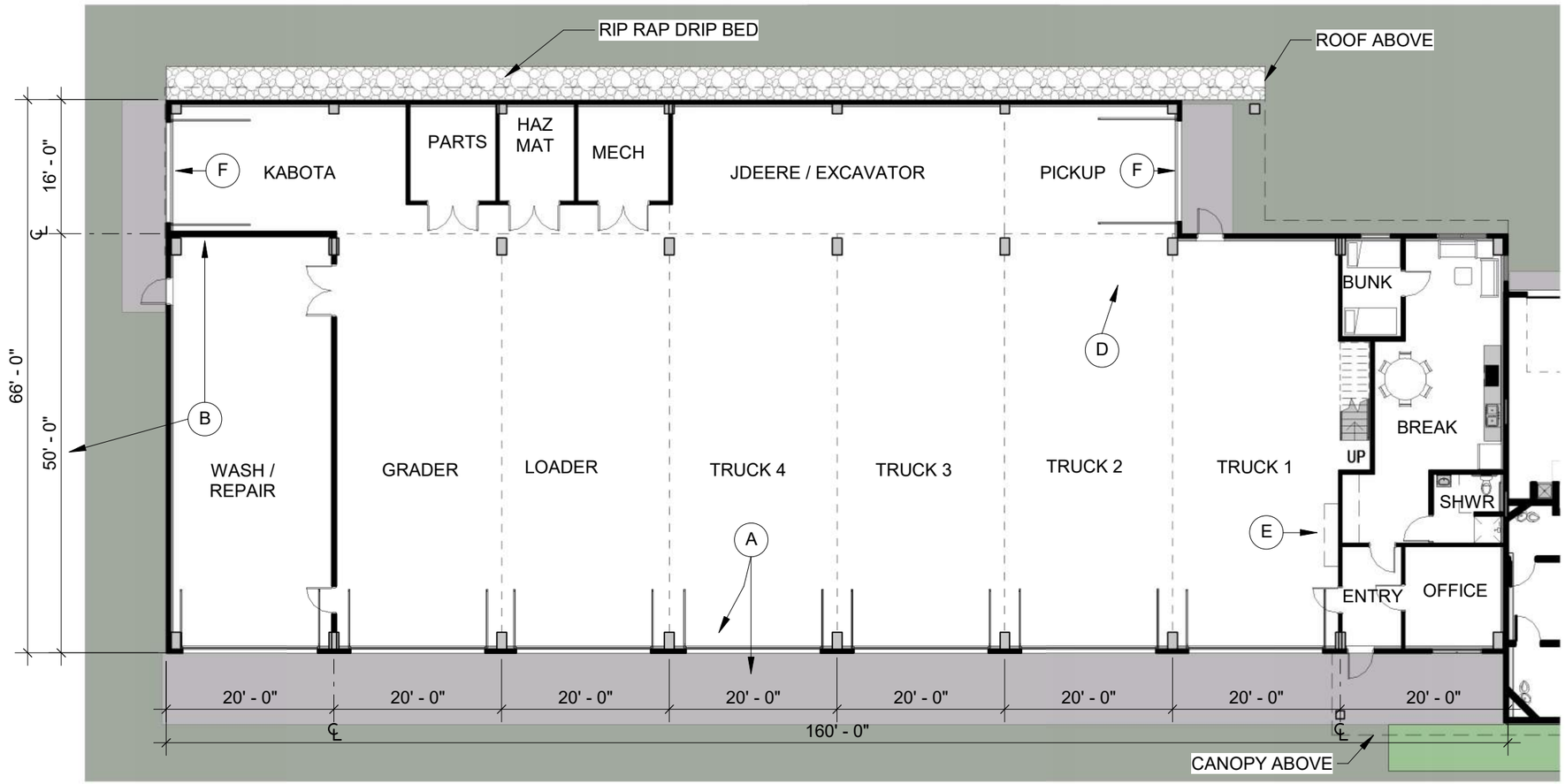
0 40' 80' 120' 160'

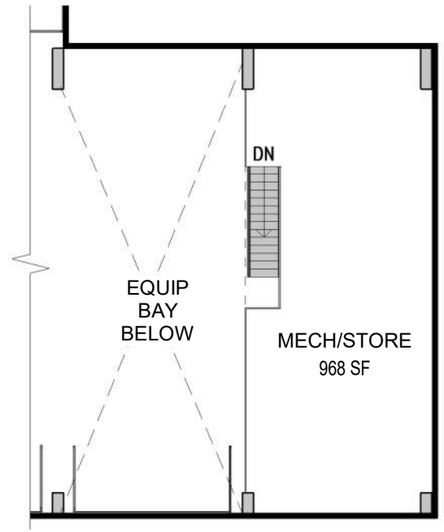
Development Plan Option B

Bristol Public Works and Police Dept. Building Site and Needs Analysis

CONCEPT DESIGN 10/29/2020

BreadLoaf Architects Planners Builders





Mezzanine Plan

DPW Garage Plan Notes	
A	20ft bay width based on Starksboro Garage. 16ft wide x 14ft overhead doors typical along south wall.
B	Bay depth = current garage depth + 10ft. extension for plows and misc. storage.
D	Radiant heat boiler only for slab. Other mechanical on mezzanine
E	Main electrical distribution center
F	12w x 12h overhead door

Graphic Scale: 1 inch = 16 feet

0 16' 32' 48' 64'

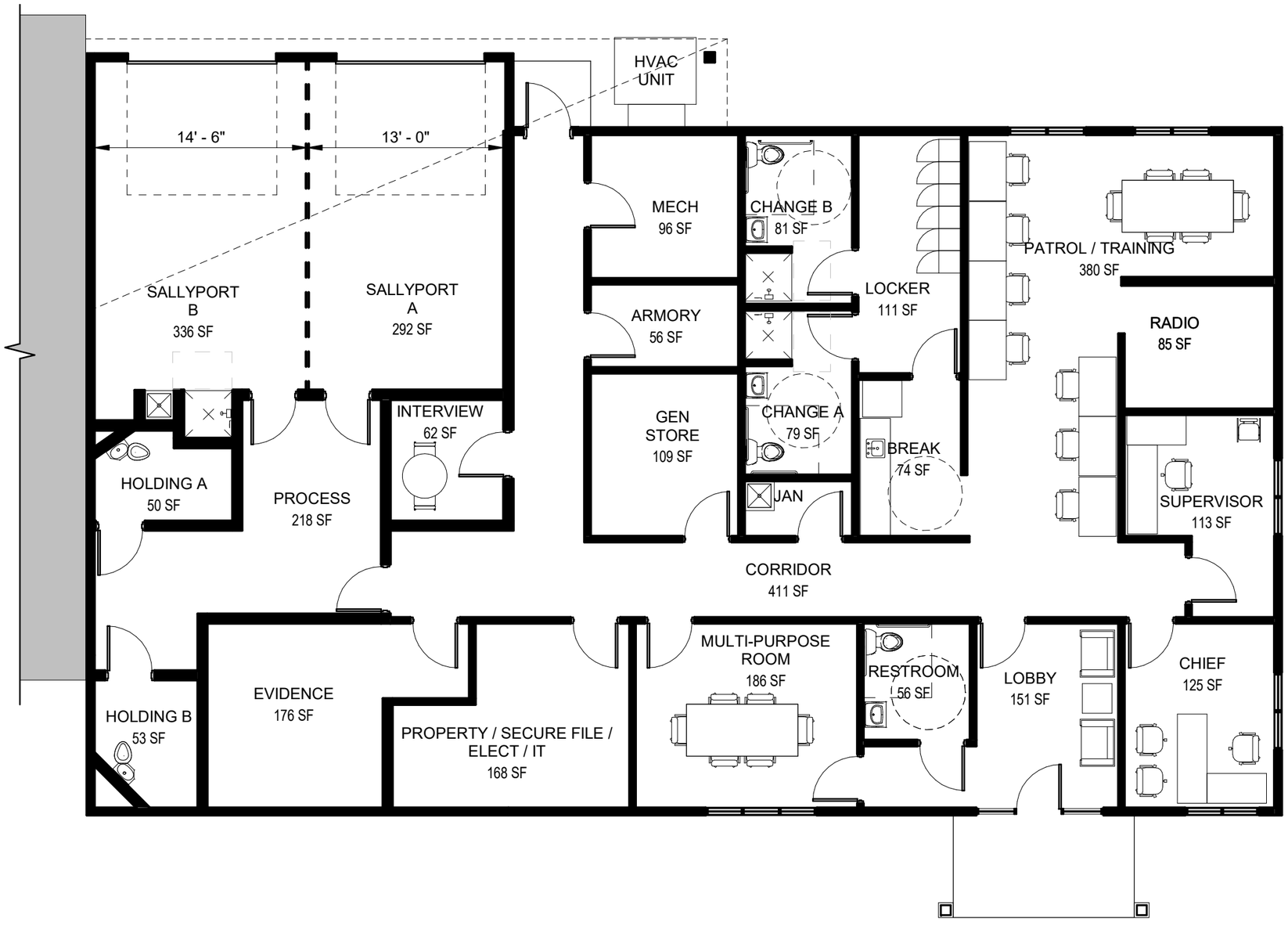
DPW Garage Plan Option B

Bristol Public Works and Police Dept. Building Site and Needs Analysis

CONCEPT DESIGN

10/29/2020

BreadLoaf Architects Planners Builders



Graphic Scale: 1 inch = 8 feet

0 8' 16' 24' 32'

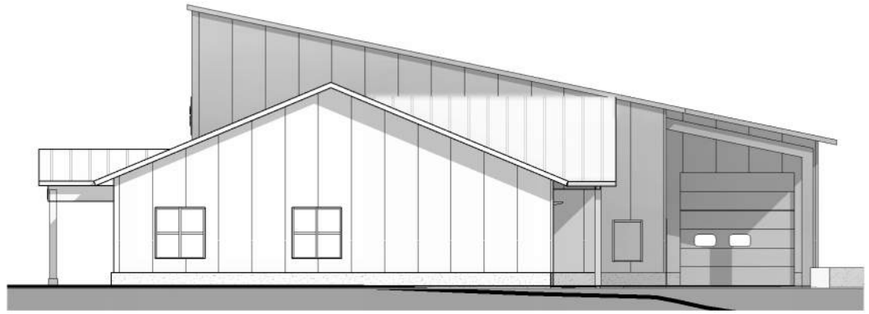
Police Department Plan Option B

Bristol Public Works and Police Dept. Feasibility Study

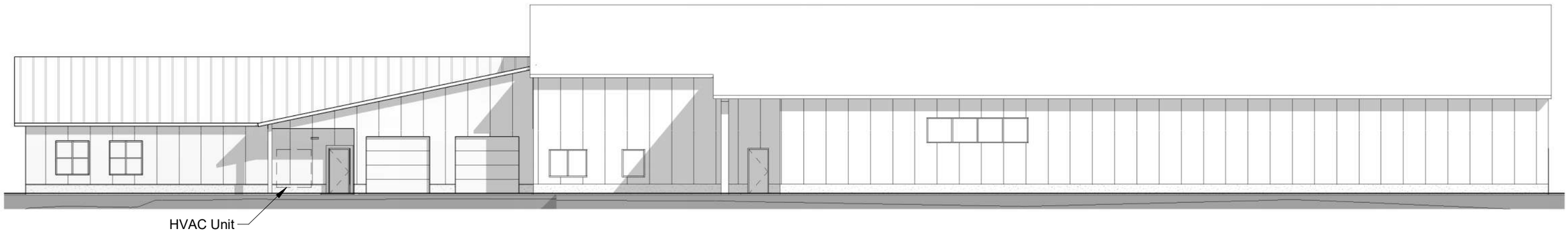
CONCEPT DESIGN

10/29/2020

BreadLoaf Architects Planners Builders



East Elevation



North Elevation

South Elevation

Exterior Elevations Option B

Bristol Public Works and Police Dept. Building Site and Needs Analysis

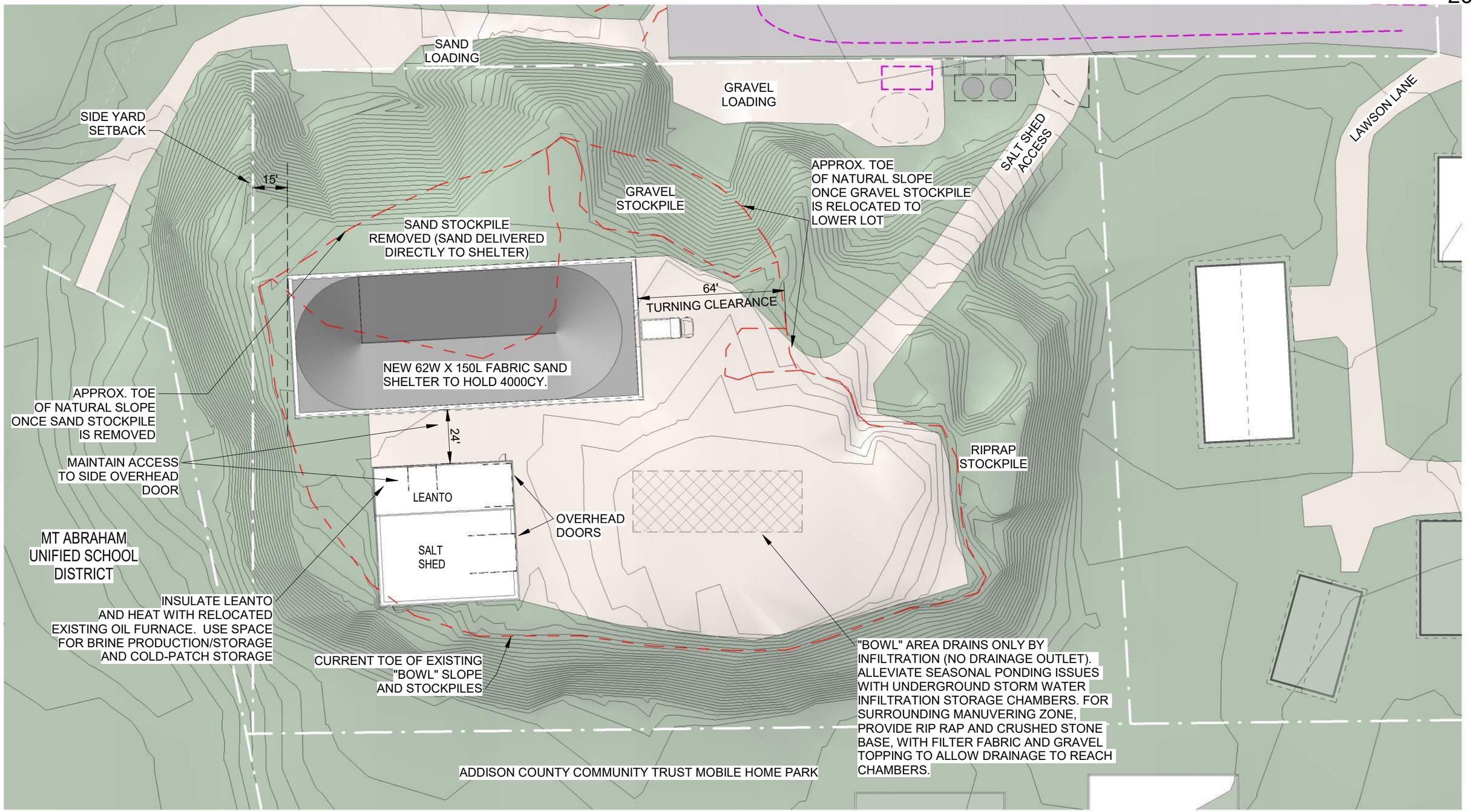
Graphic Scale: 1 inch = 16 feet

0 16' 32' 48' 64'

CONCEPT DESIGN

10/29/2020

BreadLoaf Architects Planners Builders



Graphic Scale: 1 inch = 40 feet

0 40' 80' 120' 160'

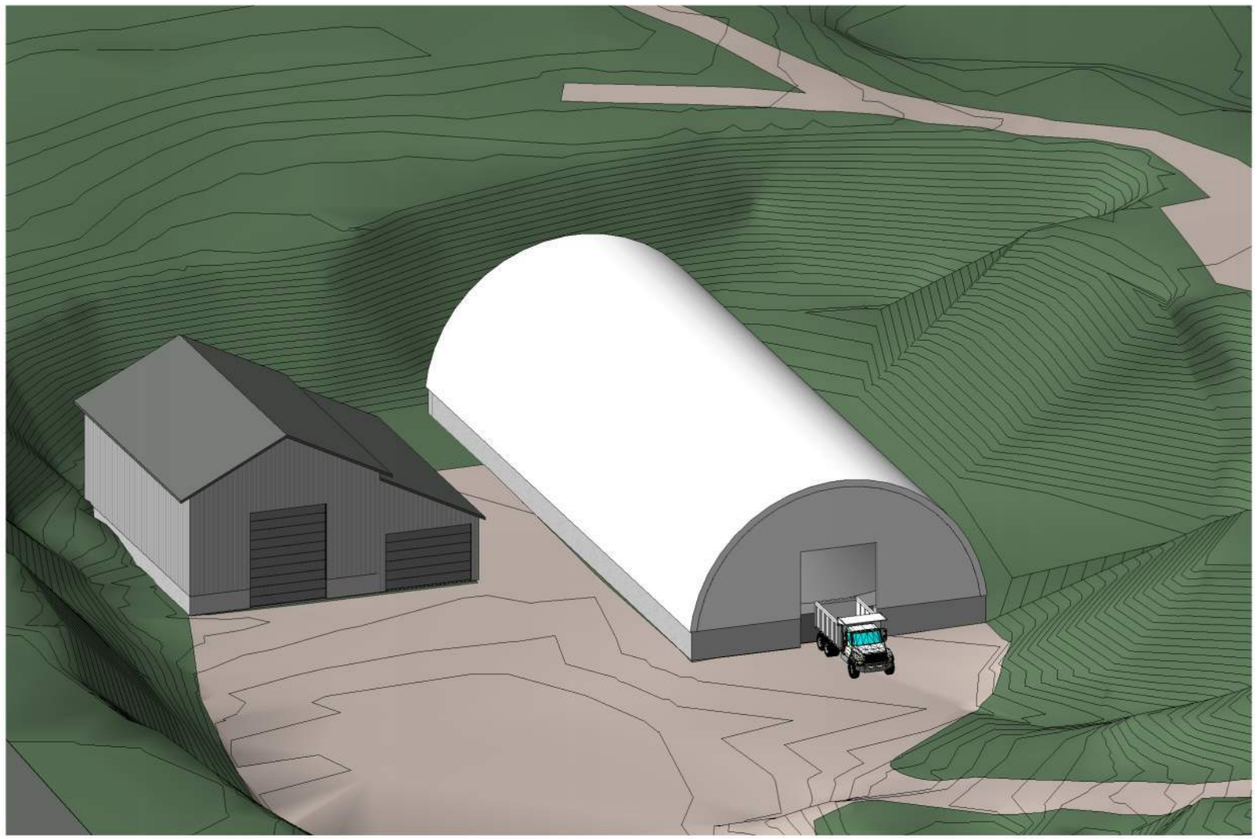
Salt & Sand Shelters Plan

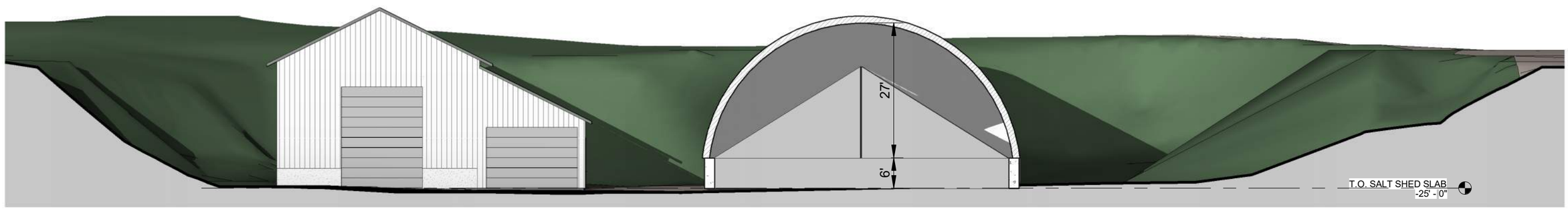
Bristol Public Works and Police Dept. Building Site and Needs Analysis

CONCEPT DESIGN

10/29/2020

BreadLoaf
Architects
Planners
Builders





NEW FABRIC SHELTER
WITH STEEL JOISTS AND
CONCRETE WASTE BLOCK
FOUNDATION

Sand Shelter Views

Bristol Public Works and Police Dept. Building Site and Needs Analysis

CONCEPT DESIGN

10/29/2020

BreadLoaf
Architects
Planners
Builders