

## Agenda

### Recycling Committee

Monday, December 12, 2016 at 2 pm.

1. Minutes September 12, October 10, October 24, 2016
2. Review the 4 Transfer Station/Recycling options - Chip Reeves
3. Recommendation to the Town Council
4. Next Steps - Recycling

Adjourn

# Memo

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To: Recycling Task Force  
Cornell Knight, Town Manager

From: Chip Reeves, Public Works Director *CR*

Date: December 9, 2016

Re: Transfer Station Master Plan

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Attached are sketch plans for four options for the above referenced master plan and most probable costs. Below are descriptions of the options and costs. All options assume contracted pricing for hauling materials.

## **Option #1**

This option keeps the handling of our Municipal Solid Waste (MSW) and recycling products in the same areas.

MSW will be handled utilizing a hopper with hydraulic ram for loading self-ejecting trailers. The building is laid out to accommodate two drive thru lanes for mostly residential users. Commercial loads will drive to the north side of the building and back into the hopper in a separate lane to dump.

Recycling will be processed in the same location with an addition to the existing building which will house a new horizontal baler. The existing building will be partially demoed to allow for traffic circulation.

## Capital Expenses

Buildings and Site Improvements	\$2,683,978
Equipment	\$405,000
Yard Tractor	
Horizontal Bailer	
Skid Steer	
Trailers 3	

**Total Cap Ex \$3,088,978**

## Operational Expenses

Additional Hauling Cost Vs FY 17 Budget	\$ 0
Labor: Eliminate Seasonal, add 1 Full time	<u>\$31,238</u>
<b>Total Op Ex</b>	<b>\$31,238</b>

## Option #2

In this option MSW will be handled in the same manner as Option #1.

The existing recycling building will be demoed and we will change to a single sort recycling system. Single sort means all of your recycled materials will go into one container. In this option commercially delivered single sort will back up a ramp to dump into a hopper unit which has a ram to load a roll off container. This option has two lanes for residential recyclers to drop off their recyclables.

### Capital Expenses

Buildings and Site Improvements	\$2,236,161
Equipment	\$346,500
Yard Tractor	
Trailers 3	
Single Sort Units 2	
Spare Roll Off	

**Total Cap Ex \$2,582,661**

### Operational Expenses

Additional Hauling Cost Vs FY 17 Budget	\$31,110
Single Sort Tip Fees (Based on CY 15 Tons)	<u>\$22,050</u>
<b>Total Op Ex</b>	<b>\$53,160</b>

## Option #2A

This option is a hybrid of #2 and #3. MSW will be handled in a slightly smaller building than option #2 and will allow MSW trailers to be totally enclosed within the building.

Recycling will be handled the same as #2 with the exception of commercial single sort. Rather than building a ramp to allow a place for commercial loads to dump, a slab with push walls will be constructed. This will allow for more controlled loading of these large loads of recycling into the recycling hopper. Capital costs include a skid steer with a grapple attachment in order to perform this work.

### Capital Expenses

Buildings and Site Improvements	\$2,209,481
Equipment	\$401,500
Yard Tractor	
Trailers 3	
Single Sort Units 2	
Spare Roll Off	
Skid Steer with Grapple	

**Total Cap Ex \$2,610,981**

Operational Expenses

Additional Hauling Cost Vs FY 17 Budget	\$31,110
Single Sort Tip Fees (Based on CY 15 Tons)	<u>\$22,050</u>
<b>Total Op Ex</b>	<b>\$53,160</b>

**Option #3**

In this option we separate commercial MSW and single sort recycling from the residential.

On the residential side, the existing recycling building will be demoed and roll offs with compactor units installed, one for MSW and one for single sort recycling. This will allow for three lanes for drop off. One will allow both MSW and single sort, the other two will allow for single sort only and MSW only.

On the commercial side one trailer will be utilized for single sort recycling and the other for MSW. One drive through lane is included which will allow for smaller commercial deliveries. Packers will drive around the building and back in to dump commercial loads of MSW and single sort recycling.

Capital Expenses

Buildings and Site Improvements	\$1,781,209
Equipment	\$428,000
Yard Tractor	
Trailers 4	
Single Sort Units 2	
Spare Roll Off 2	
<b>Total Cap Ex</b>	<b>\$2,209,209</b>

Operational Expenses

Additional Hauling Cost Vs FY 17 Budget	\$28,455
Single Sort Tip Fees (Based on CY 15 Tons)	<u>\$22,050</u>
<b>Total Op Ex</b>	<b>\$50,505</b>

The concepts above do not include additional operational expenses which could be incurred during construction. An example is we will need to provide a way for commercial MSW to be tipped either at our facility or somewhere else. It is staff's opinion that contingencies included in the pricing above will cover this cost, although yet undefined. Ron and I are meeting with MDEP today and will be prepared to discuss interim operations on Monday.

Feel free to call with questions.

## Task Force on Recycling

### Minutes

September 12, 2016 at 4 pm.

Attending: Ted Koffman, Arnold Lundquist, Robert Rechholtz, Ken Smith, Clark Stivers, Martha Searchfield, Mike Handwerk. Staff- Chip Reeves, Cornell Knight.

This being the first meeting of the Task Force, everyone introduced themselves.

Ted Koffman was nominated as Chair, and voted unanimously.

Mike Handwerk, was elected Vice Chair.

Arnold Lundquist was elected Secretary.

Cornell Knight requested the task force review the new plan for the town transfer station so the budget request can be submitted. Cornell and Chip reviewed the engineer's plot plan for a new Transfer Station with the task force. The traffic pattern currently being worked on will avoid backing up for waste disposal. A two lane drive thru for residential disposal and a different entrance would be used for commercial vehicles to back into. The hopper would use a ram to compact waste into the trailers in the lower level assisting in waste transport. The recycling facility will be modified and improved as part of the redesign. Copies of the plan were provide to each member for study and comment at the next meeting. By the next meeting there will be a draft plot plan for the Transfer Station from the engineer.

The task force also discussed several recycling/ refuse topics for future action :

- a. There was discussion about single sort recycling with Chip indicating significant cost involved but the subject will be examined at a later point.
- b. efforts to reach the State of Maine's goal of 50% recycling by 2021 was discussed
- c. The town disposal of commercial waste was discussed. Bar Harbor is one of few towns which dispose of commercial waste. As much as 2/3 of the waste disposed of by the town is commercial. There are businesses in town that are doing a good job of recycling. Martha said she would speak to Ocean Properties and Thirsty Whale and possibly send out an email to the Chamber members so a couple can be invited to the next meeting and discuss their efforts and ideas. It was generally agreed that recycling of commercial waste is an important topic.
- d. The Task Force also discussed composting and will look at this in the future.

Lisa Bjerke , an invited guest who is studying waste management, distributed copies of reports on recycling and solid waste management in the State of Maine. Clark will send the links for the reports to the members for them to review.

Chip will send out information about the recycling program and financial information on the waste program in Bar Harbor.

Next meeting is October 10<sup>th</sup> at 4 pm.

## Task Force on Recycling

### Minutes

October 24, 2016 at 4 pm.

Attending: Ted Koffman, Arnold Lundquist, Robert Rechholtz, Clark Stivers, Mike Handwerk. Staff- Chip Reeves, Cornell Knight.

Motion by Stivers Seconded by Handwerk to approve the agenda.

Chip distributed the 2015 Solid Waste Management Report that is sent to DEP.

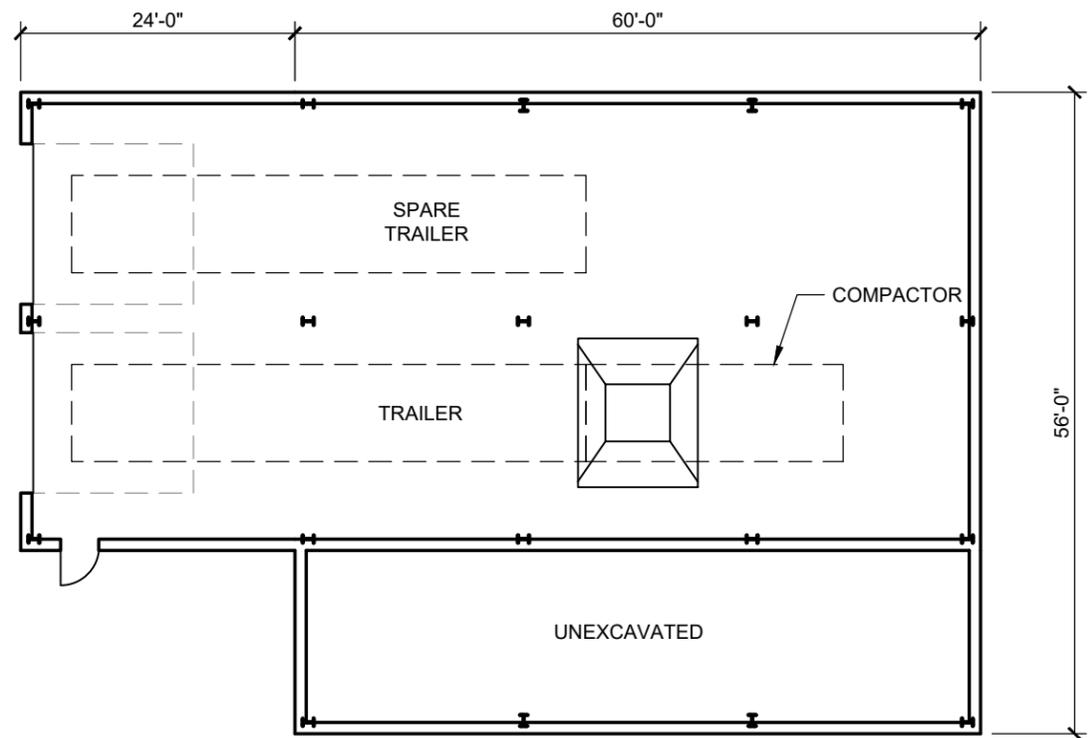
Chip distributed new cost estimates (\$1,906,000) for the Transfer Station and cost estimates for starting a single sort recycling program. The benefit to the single sort is less labor, no baling, no forklifts and less utilities and maintenance costs. Also if commercial customers can put recyclables in with cardboard, then recycling totals could increase. He estimated \$35/ton for single sort plus transportation costs. The compacted roll offs hold about 10 tons.

There was a discussion on keeping baling for cardboard but that would require a building and single sort would only require a roof and a ramp for commercial unloading.

Chip will bring back a plot plan for the single sort area. The Chamber will ask two business owners to attend to discuss how single sort might affect their recycling systems.

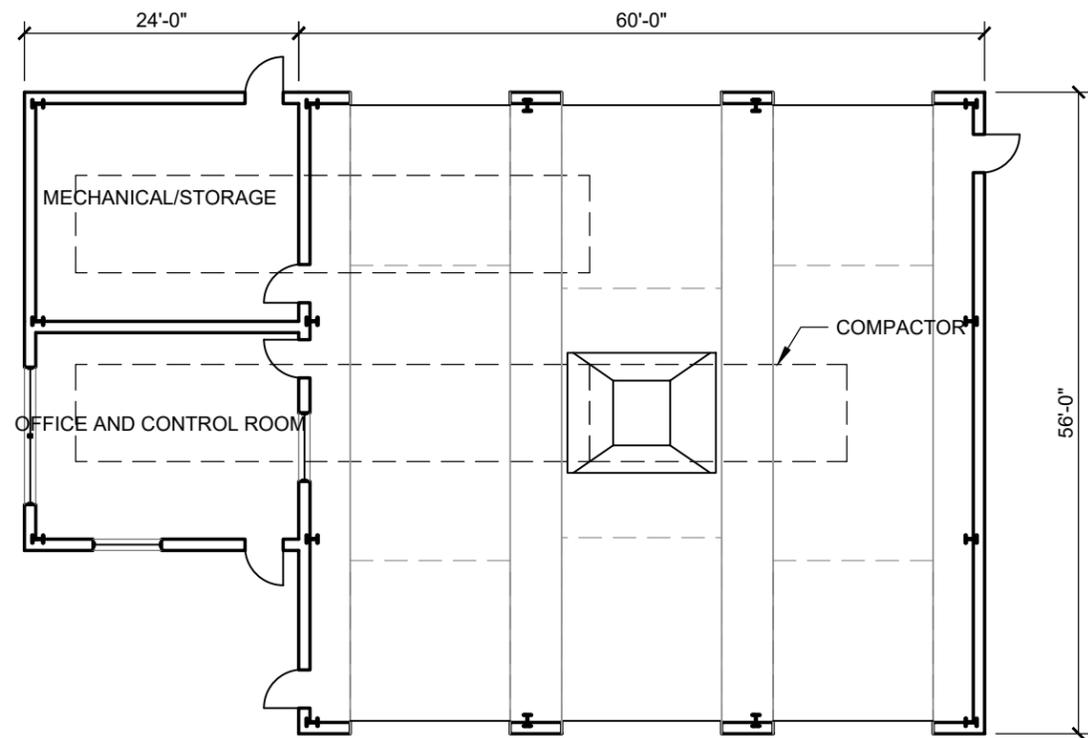
Next meeting is Monday November 7<sup>th</sup> at 4 pm.





**BASEMENT**

SCALE: 1/16"=1'-0"



**PROPOSED FLOOR PLAN**

SCALE: 1/16"=1'-0"

PROJECT TITLE:	<b>TOWN OF BAR HARBOR - TRANSFER STATION BAR HARBOR, MAINE</b>	DWG:	<b>S101</b>	BY:	BTH	REV:		DESCRIPTION:	
SHEET TITLE:	<b>MASTER PLAN OPTION #1 CONCEPT PLAN</b>	JN:	10156.002	DATE:	11/22/2016	REV DATE:		DESCRIPTION:	
		SCALE:	AS NOTED	CHECKED BY:		ISSUE DATE:			





**THE TOWN OF BAR HARBOR  
RECYCLING FACILITY  
IMPROVEMENTS**

**Draft Most Probable Cost Breakdown**

June 21, 2016

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>RECYCLING IMPROVEMENTS</b>				\$ 373,000.00
Demo Existing Recycling Drop-Off Building	600	SF	\$ 5.00	\$ 3,000.00
New Concrete Foundation	175	LF	\$ 100.00	\$ 17,500.00
New Concrete Slab	3200	SF	\$ 5.00	\$ 16,000.00
New Superstructure	3200	SF	\$ 75.00	\$ 240,000.00
New Overhead Doors	4	EA	\$ 6,000.00	\$ 24,000.00
New Concrete Ramp to Existing Recycling Process Area	1	EA	\$ 8,500.00	\$ 8,500.00
New Siding on Existing Recycling Building	1700	SF	\$ 8.00	\$ 13,600.00
New Boiler System	1	EA	\$ 12,000.00	\$ 12,000.00
New Lighting and Power	3200	SF	\$ 12.00	\$ 38,400.00
<b>SITE IMPROVEMENTS</b>				\$ 163,210.00
Site Preparation, Temporary Erosion Control	0.5	Acre	\$ 2,000.00	\$ 1,000.00
Clearing	0.12	Acre	\$ 2,500.00	\$ 300.00
Common Excavation	3,070	CY	\$ 10.00	\$ 30,700.00
Geotextile	3,030	SY	\$ 2.00	\$ 6,060.00
18" Gravel Subbase	1,252	CY	\$ 25.00	\$ 31,300.00
6" Gravel Base	505	CY	\$ 28.00	\$ 14,140.00
4" Pavement	3,030	SY	\$ 23.00	\$ 69,690.00
New Fence	70	LF	\$ 35.00	\$ 2,450.00
New 50' (2 Piece Sliding Gate)	1	EA	\$ 5,000.00	\$ 5,000.00
New 20' (2 Piece Swinging Gate)	1	EA	\$ 1,500.00	\$ 1,500.00
Striping and Marking	1	LS	\$ 1,000.00	\$ 1,000.00
Loam, Seed and Mulch	2	UNIT	\$ 35.00	\$ 70.00
<b>CONSTRUCTION SUBTOTAL</b>				\$ 536,210.00
<b>GENERAL CONDITIONS</b>				\$ 241,294.50
General Conditions	5%	%	\$ 536,210.00	\$ 26,810.50
Contingency	20%	%	\$ 536,210.00	\$ 107,242.00
Engineering/Permitting	10%	%	\$ 536,210.00	\$ 53,621.00
Construction Quality Assurance	10%	%	\$ 536,210.00	\$ 53,621.00
<b>PROJECT TOTAL</b>				\$ 777,504.50



**THE TOWN OF BAR HARBOR**  
**TRANSFER FACILITY**  
**IMPROVEMENTS**  
**Draft Most Probable Cost Breakdown**  
**October 18, 2016**

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>TRANSFER STATION IMPROVEMENTS</b>				<b>\$ 956,800.00</b>
Demo Existing Transfer Station	1	LS	\$ 15,000.00	\$ 15,000.00
New Concrete Foundation	340	LF	\$ 350.00	\$ 119,000.00
Compactor Hopper	1	EA	\$ 5,000.00	\$ 5,000.00
New Pre-Engineered Building Shell	4320	SF	\$ 100.00	\$ 432,000.00
New First Floor Framing System	3360	SF	\$ 20.00	\$ 67,200.00
New Concrete Slab	7680	SF	\$ 8.00	\$ 61,440.00
Hydraulic Ram Compactor	1	EA	\$ 60,000.00	\$ 60,000.00
New Overhead Doors	8	EA	\$ 8,000.00	\$ 64,000.00
New Trench Drain System	4	EA	\$ 2,500.00	\$ 10,000.00
New Hose Bib	4	EA	\$ 250.00	\$ 1,000.00
New Lighting and Power	7680	SF	\$ 12.00	\$ 92,160.00
Odor Control Biofilter or Mist	1	EA	\$ 30,000.00	\$ 30,000.00
<b>SITE IMPROVEMENTS</b>				<b>\$ 358,010.00</b>
Site Preparation, Temporary Erosion Control	1	Acre	\$ 2,000.00	\$ 2,000.00
Clearing	0.12	Acre	\$ 2,500.00	\$ 300.00
Common Excavation	3,751	CY	\$ 10.00	\$ 37,510.00
Common Borrow	450	CY	\$ 15.00	\$ 6,750.00
Geotextile	3,160	SY	\$ 2.00	\$ 6,320.00
18" Gravel Subbase	1,590	CY	\$ 25.00	\$ 39,750.00
6" Gravel Base	530	CY	\$ 28.00	\$ 14,840.00
4" Pavement	3,160	SY	\$ 23.00	\$ 72,680.00
2" Water Line	110	LF	\$ 50.00	\$ 5,500.00
6" Sewer Line	105	LF	\$ 50.00	\$ 5,250.00
4' Catchbasin	2	EA	\$ 4,000.00	\$ 8,000.00
12" Stormdrain	80	LF	\$ 60.00	\$ 4,800.00
Site Retaining Wall	600	SF	\$ 50.00	\$ 30,000.00
Culvert Extension	50	LF	\$ 60.00	\$ 3,000.00
Striping and Marking	1	LS	\$ 1,000.00	\$ 1,000.00
Loam, Seed and Mulch	6	UNIT	\$ 35.00	\$ 210.00
Decommission Overhead Utilities	1	LS	\$ 5,000.00	\$ 5,000.00
Pad Mounted Transformer: 150 kVA , 480 Volt, 3 Phase	1	EA	\$ 14,500.00	\$ 14,500.00
Concrete Pad: 10' x 10'	100	SF	\$ 6.00	\$ 600.00
Underground Electrical Utilities	500	LF	\$ 200.00	\$ 100,000.00
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 1,314,810.00</b>
<b>GENERAL CONDITIONS</b>				<b>\$ 591,664.50</b>
General Conditions	5%	%	\$1,314,810.00	\$ 65,740.50
Contingency	20%	%	\$1,314,810.00	\$ 262,962.00
Engineering/Permitting	10%	%	\$1,314,810.00	\$ 131,481.00
Construction Quality Assurance	10%	%	\$1,314,810.00	\$ 131,481.00
<b>PROJECT TOTAL</b>				<b>\$ 1,906,474.50</b>

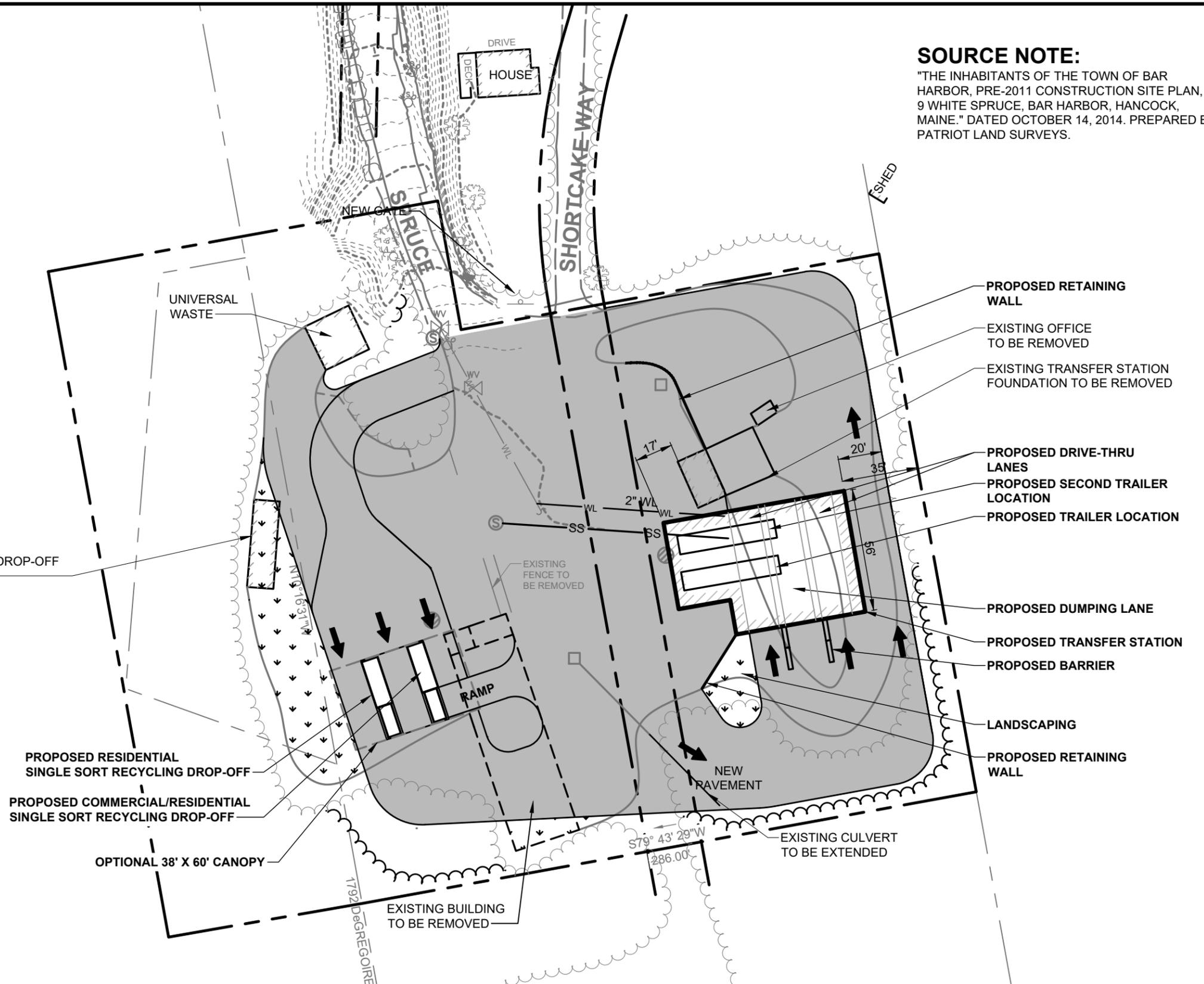
**LEGEND:**

DESCRIPTION	EXISTING	PROPOSED
SEWER MANHOLE		
UTILITY POLE		
CATCH BASIN		
WATER SHUT OFF		
WATER VALVE		
PROPERTY LINE		
OVERHEAD UTILITY LINE		
EDGE OF PAVEMENT		
EDGE OF GRAVEL		
FENCE		
WATERLINE		
STORM DRAIN		
SANITARY SEWER		
RETAINING WALL		
MINOR FOOT CONTOUR		
MAJOR FOOT CONTOUR		
TREELINE		
PAVEMENT		



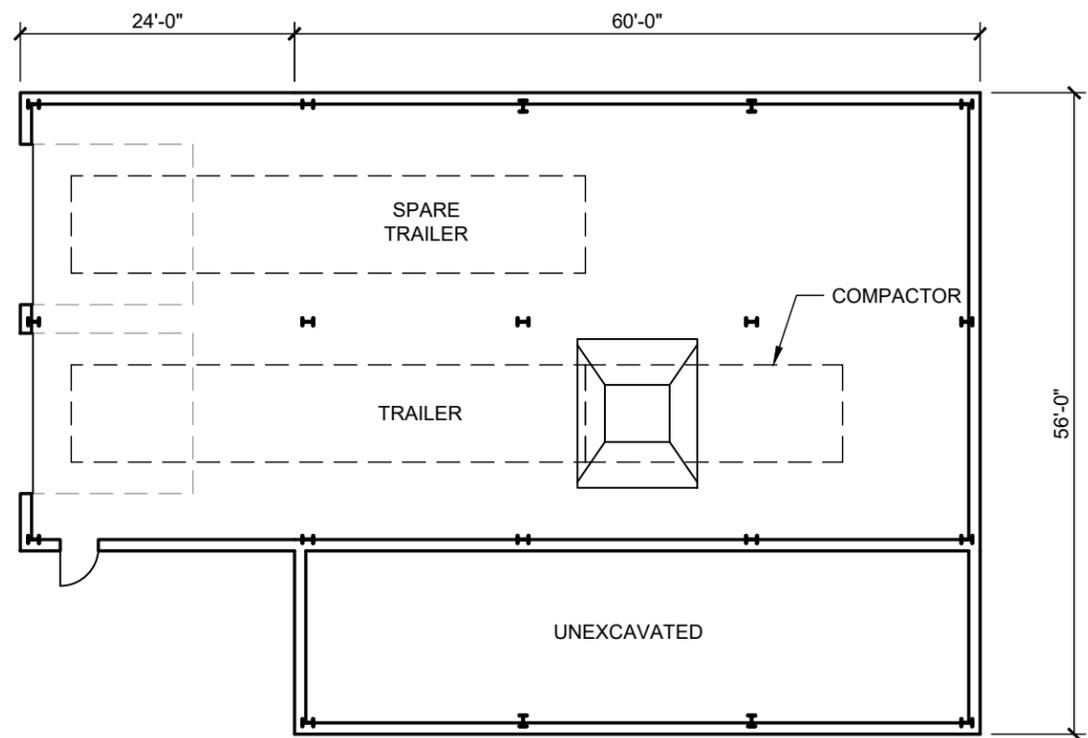
**SOURCE NOTE:**

"THE INHABITANTS OF THE TOWN OF BAR HARBOR, PRE-2011 CONSTRUCTION SITE PLAN, 9 WHITE SPRUCE, BAR HARBOR, HANCOCK, MAINE." DATED OCTOBER 14, 2014. PREPARED BY PATRIOT LAND SURVEYS.



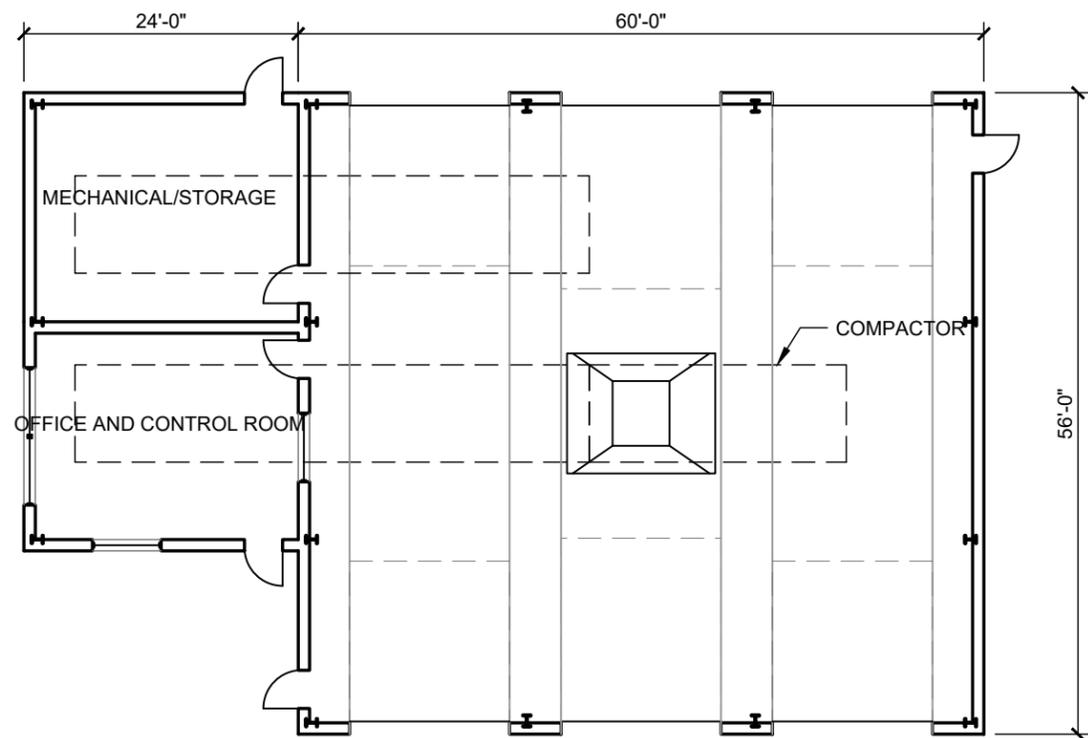
PROJECT TITLE:	<b>TOWN OF BAR HARBOR - TRANSFER STATION BAR HARBOR, MAINE</b>	DWG:	<b>C101</b>	BY:	BTH/CWS	REV:		DESCRIPTION:	
SHEET TITLE:	<b>MASTER PLAN OPTION #2 CONCEPT SKETCH</b>	JN:	10156.002	DATE:	11/22/2016	REV DATE:		DESCRIPTION:	
		SCALE:	1" = 50'	CHECKED BY:		ISSUE DATE:			





**BASEMENT**

SCALE: 1/16"=1'-0"



**PROPOSED FLOOR PLAN**

SCALE: 1/16"=1'-0"

PROJECT TITLE:	<b>TOWN OF BAR HARBOR - TRANSFER STATION BAR HARBOR, MAINE</b>	DWG:	<b>S101</b>	BY:	BTH	REV:		DESCRIPTION:	
SHEET TITLE:	<b>MASTER PLAN OPTION #2 CONCEPT PLAN</b>	JN:	10156.002	DATE:	11/22/2016	REV DATE:		DESCRIPTION:	
		SCALE:	AS NOTED	CHECKED BY:		ISSUE DATE:			





**THE TOWN OF BAR HARBOR  
TRANSFER AND RECYCLING FACILITY  
MASTER PLAN - IMPROVEMENTS-OPTION 2  
Draft Most Probable Cost Breakdown**

November 22, 2016

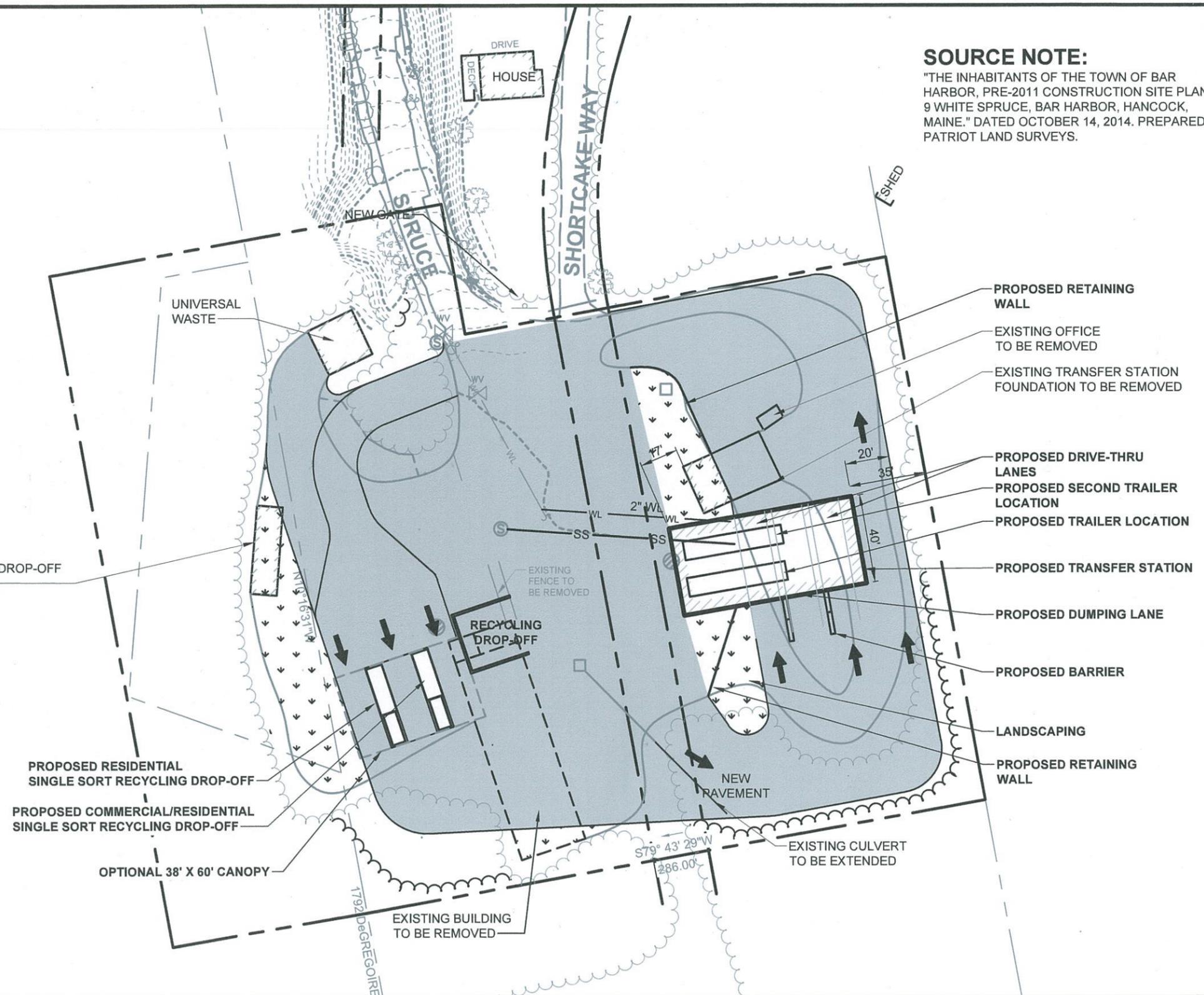
DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>TRANSFER STATION IMPROVEMENTS</b>				<b>\$ 912,800.00</b>
Demo Existing Transfer Station	1	LS	\$ 15,000.00	\$ 15,000.00
New Concrete Foundation	300	LF	\$ 350.00	\$ 105,000.00
Compactor Hopper	1	EA	\$ 5,000.00	\$ 5,000.00
New Pre-Engineered Building Shell	4320	SF	\$ 100.00	\$ 432,000.00
New First Floor Framing System	3360	SF	\$ 20.00	\$ 67,200.00
New Concrete Slab	7680	SF	\$ 8.00	\$ 61,440.00
Hydraulic Ram Compactor	1	EA	\$ 60,000.00	\$ 60,000.00
New Overhead Doors	8	EA	\$ 8,000.00	\$ 64,000.00
New Trench Drain System	4	EA	\$ 2,500.00	\$ 10,000.00
New Hose Bib	4	EA	\$ 250.00	\$ 1,000.00
New Lighting and Power	7680	SF	\$ 12.00	\$ 92,160.00
<b>RECYCLING DROP-OFF AREA IMPROVEMENT</b>				<b>\$ 87,800.00</b>
Demo Existing Recycling Drop-Off Building	1	LS	\$ 3,000.00	\$ 3,000.00
Demo Existing Recycling Building	1	LS	\$ 10,000.00	\$ 10,000.00
New Concrete Slabs	800	SF	\$ 8.00	\$ 6,400.00
New Roof Canopy	2280	SF	\$ 30.00	\$ 68,400.00
<b>SITE IMPROVEMENTS</b>				<b>\$ 541,580.00</b>
Site Preparation, Temporary Erosion Control	1.5	Acre	\$ 2,000.00	\$ 3,000.00
Clearing	0.24	Acre	\$ 2,500.00	\$ 600.00
Common Excavation	6,800	CY	\$ 10.00	\$ 68,000.00
Common Borrow	450	CY	\$ 15.00	\$ 6,750.00
Geotextile	6,800	SY	\$ 2.00	\$ 13,600.00
18" Gravel Subbase	3,100	CY	\$ 25.00	\$ 77,500.00
6" Gravel Base	1,025	CY	\$ 28.00	\$ 28,700.00
4" Pavement	6,160	SY	\$ 23.00	\$ 141,680.00
2" Water Line	100	LF	\$ 50.00	\$ 5,000.00
New Sewer Manhole	1	EA	\$ 4,000.00	\$ 4,000.00
6" Sewer Line	170	LF	\$ 50.00	\$ 8,500.00
4' Catchbasin	2	EA	\$ 4,000.00	\$ 8,000.00
12" Stormdrain	80	LF	\$ 60.00	\$ 4,800.00
Site Retaining Walls	600	SF	\$ 50.00	\$ 30,000.00
Ramp for Packer Dumping at Recycling	1	LS	\$ 15,000.00	\$ 15,000.00
Culvert Extension	50	LF	\$ 60.00	\$ 3,000.00
Striping and Marking	1	LS	\$ 3,000.00	\$ 3,000.00
Loam, Seed and Mulch	10	UNIT	\$ 35.00	\$ 350.00
Decommission Overhead Utilities	1	LS	\$ 5,000.00	\$ 5,000.00
Pad Mounted Transformer: 150 kVA , 480 Volt, 3 Phase	1	EA	\$ 14,500.00	\$ 14,500.00
Concrete Pad: 10' x 10'	100	SF	\$ 6.00	\$ 600.00
Underground Electrical Utilities	500	LF	\$ 200.00	\$ 100,000.00
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 1,542,180.00</b>
<b>GENERAL CONDITIONS</b>				<b>\$ 693,981.00</b>
General Conditions	5%	%	\$ 1,542,180.00	\$ 77,109.00
Contingency	20%	%	\$ 1,542,180.00	\$ 308,436.00
Engineering/Permitting	10%	%	\$ 1,542,180.00	\$ 154,218.00
Construction Quality Assurance	10%	%	\$ 1,542,180.00	\$ 154,218.00
<b>PROJECT TOTAL</b>				<b>\$ 2,236,161.00</b>

**LEGEND:**

DESCRIPTION	EXISTING	PROPOSED
SEWER MANHOLE		
UTILITY POLE		
CATCH BASIN		
WATER SHUT OFF		
WATER VALVE		
PROPERTY LINE		
OVERHEAD UTILITY LINE		
EDGE OF PAVEMENT		
EDGE OF GRAVEL		
FENCE		
WATERLINE		
STORM DRAIN		
SANITARY SEWER		
RETAINING WALL		
MINOR FOOT CONTOUR		
MAJOR FOOT CONTOUR		
TREELINE		
PAVEMENT		

**SOURCE NOTE:**

"THE INHABITANTS OF THE TOWN OF BAR HARBOR, PRE-2011 CONSTRUCTION SITE PLAN, 9 WHITE SPRUCE, BAR HARBOR, HANCOCK, MAINE." DATED OCTOBER 14, 2014. PREPARED BY PATRIOT LAND SURVEYS.



PROJECT TITLE:	<b>TOWN OF BAR HARBOR - TRANSFER STATION BAR HARBOR, MAINE</b>	DWG:	<b>C101</b>	BY:	BTH/CWS	REV:		DESCRIPTION:	
SHEET TITLE:	<b>MASTER PLAN OPTION #2A CONCEPT SKETCH</b>	JN:	10156.002	DATE:	12/1/2016	REV DATE:		DESCRIPTION:	
		SCALE:	1" = 50'	CHECKED BY:		ISSUE DATE:		DESCRIPTION:	





**THE TOWN OF BAR HARBOR**  
**TRANSFER AND RECYCLING FACILITY**  
**MASTER PLAN - IMPROVEMENTS-OPTION 2A**  
**Draft Most Probable Cost Breakdown**  
 December 7, 2016

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>TRANSFER STATION IMPROVEMENTS</b>				<b>\$ 779,400.00</b>
Demo Existing Transfer Station	1	LS	\$ 15,000.00	\$ 15,000.00
New Concrete Foundation	248	LF	\$ 350.00	\$ 86,800.00
Compactor Hopper	1	EA	\$ 5,000.00	\$ 5,000.00
New Pre-Engineered Building Shell	3360	SF	\$ 100.00	\$ 336,000.00
New First Floor Framing System	3360	SF	\$ 20.00	\$ 67,200.00
New Concrete Slab	6720	SF	\$ 8.00	\$ 53,760.00
Hydraulic Ram Compactor	1	EA	\$ 60,000.00	\$ 60,000.00
New Overhead Doors	8	EA	\$ 8,000.00	\$ 64,000.00
New Trench Drain System	4	EA	\$ 2,500.00	\$ 10,000.00
New Hose Bib	4	EA	\$ 250.00	\$ 1,000.00
New Lighting and Power	6720	SF	\$ 12.00	\$ 80,640.00
<b>RECYCLING DROP-OFF AREA IMPROVEMENT</b>				<b>\$ 187,800.00</b>
Demo Existing Recycling Drop-Off Building	1	LS	\$ 3,000.00	\$ 3,000.00
Demo Existing Recycling Building	1	LS	\$ 10,000.00	\$ 10,000.00
New Concrete Slabs	800	SF	\$ 8.00	\$ 6,400.00
New Roof Canopy	2280	SF	\$ 30.00	\$ 68,400.00
New Compactors	2	EA	\$ 50,000.00	\$ 100,000.00
<b>SITE IMPROVEMENTS</b>				<b>\$ 556,580.00</b>
Site Preparation, Temporary Erosion Control	1.5	Acre	\$ 2,000.00	\$ 3,000.00
Clearing	0.24	Acre	\$ 2,500.00	\$ 600.00
Common Excavation	6,800	CY	\$ 10.00	\$ 68,000.00
Common Borrow	450	CY	\$ 15.00	\$ 6,750.00
Geotextile	6,800	SY	\$ 2.00	\$ 13,600.00
18" Gravel Subbase	3,100	CY	\$ 25.00	\$ 77,500.00
6" Gravel Base	1,025	CY	\$ 28.00	\$ 28,700.00
4" Pavement	6,160	SY	\$ 23.00	\$ 141,680.00
2" Water Line	100	LF	\$ 50.00	\$ 5,000.00
New Sewer Manhole	1	EA	\$ 4,000.00	\$ 4,000.00
6" Sewer Line	170	LF	\$ 50.00	\$ 8,500.00
4' Catchbasin	2	EA	\$ 4,000.00	\$ 8,000.00
12" Stormdrain	80	LF	\$ 60.00	\$ 4,800.00
Site Retaining Walls	600	SF	\$ 50.00	\$ 30,000.00
Recycling Drop-Off Area (3 Sides Concrete Walls-Paved Floor)	1	LS	\$ 30,000.00	\$ 30,000.00
Culvert Extension	50	LF	\$ 60.00	\$ 3,000.00
Striping and Marking	1	LS	\$ 3,000.00	\$ 3,000.00
Loam, Seed and Mulch	10	UNIT	\$ 35.00	\$ 350.00
Decommission Overhead Utilities	1	LS	\$ 5,000.00	\$ 5,000.00
Pad Mounted Transformer: 150 kVA , 480 Volt, 3 Phase	1	EA	\$ 14,500.00	\$ 14,500.00
Concrete Pad: 10' x 10'	100	SF	\$ 6.00	\$ 600.00
Underground Electrical Utilities	500	LF	\$ 200.00	\$ 100,000.00
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 1,523,780.00</b>
<b>GENERAL CONDITIONS</b>				<b>\$ 685,701.00</b>
General Conditions	5%	%	\$ 1,523,780.00	\$ 76,189.00
Contingency	20%	%	\$ 1,523,780.00	\$ 304,756.00
Engineering/Permitting	10%	%	\$ 1,523,780.00	\$ 152,378.00
Construction Quality Assurance	10%	%	\$ 1,523,780.00	\$ 152,378.00
<b>PROJECT TOTAL</b>				<b>\$ 2,209,481.00</b>

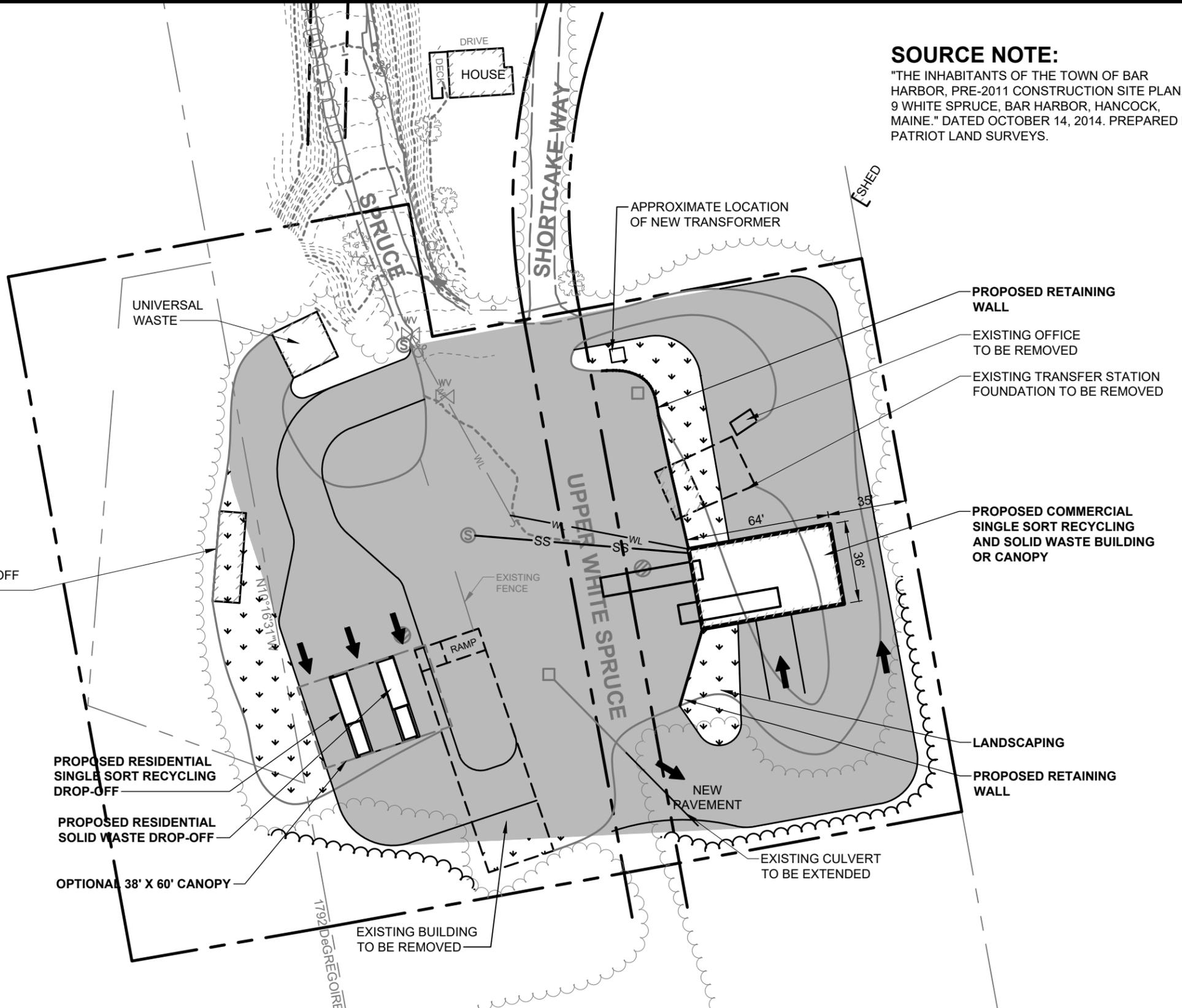
**LEGEND:**

DESCRIPTION	EXISTING	PROPOSED
SEWER MANHOLE		
UTILITY POLE		
CATCH BASIN		
WATER SHUT OFF		
WATER VALVE		
PROPERTY LINE		
OVERHEAD UTILITY LINE		
EDGE OF PAVEMENT		
EDGE OF GRAVEL		
FENCE		
WATERLINE		
STORM DRAIN		
SANITARY SEWER		
RETAINING WALL		
MINOR FOOT CONTOUR		
MAJOR FOOT CONTOUR		
TREELINE		
PAVEMENT		



**SOURCE NOTE:**

"THE INHABITANTS OF THE TOWN OF BAR HARBOR, PRE-2011 CONSTRUCTION SITE PLAN, 9 WHITE SPRUCE, BAR HARBOR, HANCOCK, MAINE." DATED OCTOBER 14, 2014. PREPARED BY PATRIOT LAND SURVEYS.



EXISTING RECYCLING DROP-OFF TO BE REMOVED

PROPOSED RESIDENTIAL SINGLE SORT RECYCLING DROP-OFF

PROPOSED RESIDENTIAL SOLID WASTE DROP-OFF

OPTIONAL 38' X 60' CANOPY

EXISTING BUILDING TO BE REMOVED

APPROXIMATE LOCATION OF NEW TRANSFORMER

PROPOSED RETAINING WALL

EXISTING OFFICE TO BE REMOVED

EXISTING TRANSFER STATION FOUNDATION TO BE REMOVED

PROPOSED COMMERCIAL SINGLE SORT RECYCLING AND SOLID WASTE BUILDING OR CANOPY

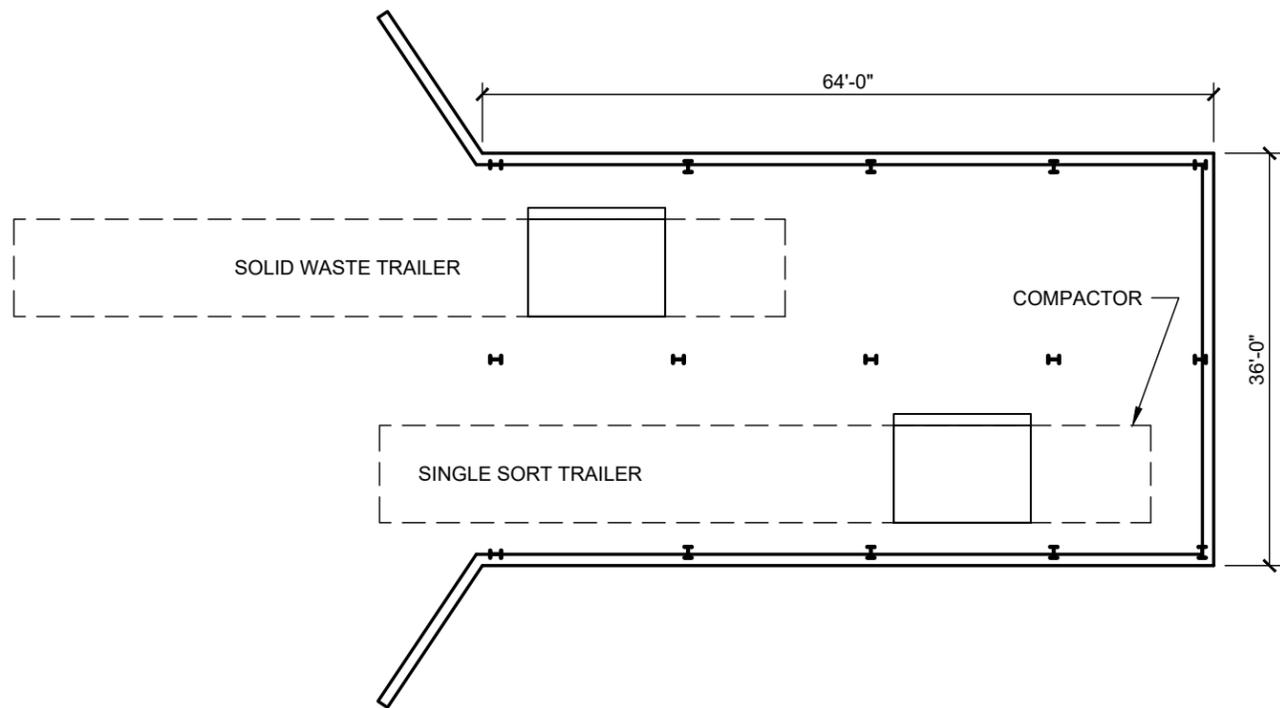
LANDSCAPING

PROPOSED RETAINING WALL

EXISTING CULVERT TO BE EXTENDED

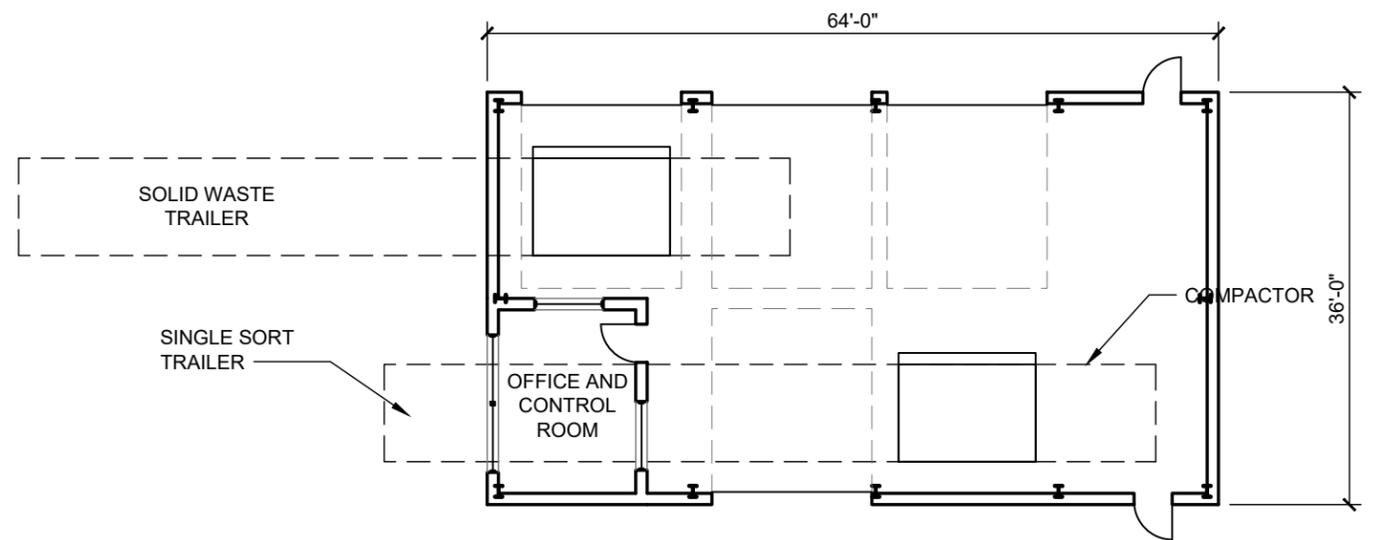
PROJECT TITLE:	<b>TOWN OF BAR HARBOR - TRANSFER STATION BAR HARBOR, MAINE</b>	DWG:	<b>C101</b>	BY:	BTH/CWS	REV:		DESCRIPTION:	
SHEET TITLE:	<b>MASTER PLAN OPTION #3 CONCEPT SKETCH</b>	JN:	10156.002	DATE:	11/22/2016	REV DATE:		DESCRIPTION:	
		SCALE:	1" = 50'	CHECKED BY:		ISSUE DATE:			





**BASEMENT**

SCALE: 1/16"=1'-0"



**PROPOSED FLOOR PLAN**

SCALE: 1/16"=1'-0"

PROJECT TITLE:	<b>TOWN OF BAR HARBOR - TRANSFER STATION BAR HARBOR, MAINE</b>	DWG:	<b>S101</b>	BY:	BTH	REV:		DESCRIPTION:	
SHEET TITLE:	<b>MASTER PLAN OPTION #3 CONCEPT SKETCH</b>	JN:	10156.002	DATE:	11/22/2016	REV DATE:			
		SCALE:	AS NOTED	CHECKED BY:		ISSUE DATE:			





**THE TOWN OF BAR HARBOR  
TRANSFER AND RECYCLING FACILITY  
MASTER PLAN - IMPROVEMENTS-OPTION 3**

**Draft Most Probable Cost Breakdown**

November 22, 2016

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>TRANSFER STATION IMPROVEMENTS</b>				<b>\$ 614,040.00</b>
Demo Existing Transfer Station	1	LS	\$ 15,000.00	\$ 15,000.00
New Concrete Foundation	164	LF	\$ 350.00	\$ 57,400.00
Compactor Hopper	2	EA	\$ 5,000.00	\$ 10,000.00
New Pre-Engineered Building Shell	2304	SF	\$ 100.00	\$ 230,400.00
New First Floor Framing System	2304	SF	\$ 20.00	\$ 46,080.00
New Concrete Slab	4608	SF	\$ 8.00	\$ 36,864.00
Hydraulic Ram Compactor	2	EA	\$ 60,000.00	\$ 120,000.00
New Overhead Doors	4	EA	\$ 8,000.00	\$ 32,000.00
New Trench Drain System	4	EA	\$ 2,500.00	\$ 10,000.00
New Hose Bib	4	EA	\$ 250.00	\$ 1,000.00
New Lighting and Power	4608	SF	\$ 12.00	\$ 55,296.00
<b>RECYCLING DROP-OFF AREA IMPROVEMENT</b>				<b>\$ 87,800.00</b>
Demo Existing Recycling Drop-Off Building	1	LS	\$ 3,000.00	\$ 3,000.00
Demo Existing Recycling Building	1	LS	\$ 10,000.00	\$ 10,000.00
New Concrete Slabs	800	SF	\$ 8.00	\$ 6,400.00
New Roof Canopy	2280	SF	\$ 30.00	\$ 68,400.00
<b>SITE IMPROVEMENTS</b>				<b>\$ 526,580.00</b>
Site Preparation, Temporary Erosion Control	1.5	Acre	\$ 2,000.00	\$ 3,000.00
Clearing	0.24	Acre	\$ 2,500.00	\$ 600.00
Common Excavation	6,800	CY	\$ 10.00	\$ 68,000.00
Common Borrow	450	CY	\$ 15.00	\$ 6,750.00
Geotextile	6,800	SY	\$ 2.00	\$ 13,600.00
18" Gravel Subbase	3,100	CY	\$ 25.00	\$ 77,500.00
6" Gravel Base	1,025	CY	\$ 28.00	\$ 28,700.00
4" Pavement	6,160	SY	\$ 23.00	\$ 141,680.00
2" Water Line	100	LF	\$ 50.00	\$ 5,000.00
New Sewer Manhole	1	EA	\$ 4,000.00	\$ 4,000.00
6" Sewer Line	170	LF	\$ 50.00	\$ 8,500.00
4' Catchbasin	2	EA	\$ 4,000.00	\$ 8,000.00
12 " Stormdrain	80	LF	\$ 60.00	\$ 4,800.00
Site Retaining Walls	600	SF	\$ 50.00	\$ 30,000.00
Culvert Extension	50	LF	\$ 60.00	\$ 3,000.00
Striping and Marking	1	LS	\$ 3,000.00	\$ 3,000.00
Loam, Seed and Mulch	10	UNIT	\$ 35.00	\$ 350.00
Decommission Overhead Utilities	1	LS	\$ 5,000.00	\$ 5,000.00
Pad Mounted Transformer: 150 kVA , 480 Volt, 3 Phase	1	EA	\$ 14,500.00	\$ 14,500.00
Concrete Pad: 10' x 10'	100	SF	\$ 6.00	\$ 600.00
Underground Electrical Utilities	500	LF	\$ 200.00	\$ 100,000.00
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 1,228,420.00</b>
<b>GENERAL CONDITIONS</b>				<b>\$ 552,789.00</b>
General Conditions	5%	%	\$ 1,228,420.00	\$ 61,421.00
Contingency	20%	%	\$ 1,228,420.00	\$ 245,684.00
Engineering/Permitting	10%	%	\$ 1,228,420.00	\$ 122,842.00
Construction Quality Assurance	10%	%	\$ 1,228,420.00	\$ 122,842.00
<b>PROJECT TOTAL</b>				<b>\$ 1,781,209.00</b>