

Agenda

Recycling Committee

Monday, November 28, 2016 at 4 pm.

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

Adjourn

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 10, 2016 at 4 pm.

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

Lis Bjerke did a powerpoint presentation on Materials Management for Bar Harbor and ways to improve participation in recycling. She quoted Mount Desert Island recycling is 13% and the state average is 34%. She explained that Maine law requires all municipalities to be at least 50% but most are nowhere near the goal.

Chip distributed historical information of recycled material volumes and revenue. Also the last 25 years of PERC deliveries.

Chip also reviewed the Transfer Station plan and traffic flow with 2 drive in bays and a hopper in the middle. Commercial haulers will have a separate bay to back up to the hopper. Trailers will be filled using a hydraulic ram system in the lower level. By having the trailers enclosed in a building there will be less odors, less leachate and no rain water that adds to the weight of the load. It will be a safer and more convenient operation for the customers and since the msw will be better compacted the trailers will be heavier and should reduce the number of trips annually. The committee was concerned that the new proposal represents current methodologies

The committee discussed charging for commercial waste. Since 2/3 of the waste at the transfer station is commercial with little recycling it represents a huge issue. Everyone acknowledges that changing our process is a difficult subject. Mr. Knight said the By Laws would need to be amended by the Town Council to consider that fee.

Mike Handwerk said that Universal Waste Disposal is an opportunity to increase rates of recycling.

There was discussion on how to get more recycling rates up without a PAYT program. Policing the hopper for better participation was mentioned. Single Sort recycling might be a method to improve rates. The Recycling Building project could be much smaller with single sort because there would be no baling but there would be less revenue and some cost. Less labor costs are likely. Chip will work on costs and how a single sort program would work.

The next meeting will be Monday October 24<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.

# Memo

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To: Cornell Knight, Town Manager  
From: Chip Reeves, Public Works Director  
Date: November 21, 2016  
Re: Transfer Station Master Plan

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Attached are sketch plans for three 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 #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

**Total Cap Ex \$2,209,209**

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.

Please call with questions.



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

Draft Most Probable Cost Breakdown #1

October 18, 2016

| DESCRIPTION  | QUANTITY | UNIT | UNIT PRICE     | TOTAL           |
|--|----------|------|----------------|-----------------|
| <b>TRANSFER STATION IMPROVEMENTS</b>                 |          |      |                | \$ 956,800.00   |
| 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>                             |          |      |                | \$ 358,010.00   |
| 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>                         |          |      |                | \$ 1,314,810.00 |
| <b>GENERAL CONDITIONS</b>                            |          |      |                | \$ 591,664.50   |
| 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>                                 |          |      |                | \$ 1,906,474.50 |

+ 777,504.50  
\$ 2,683,979



**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 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> |



**THE TOWN OF BAR HARBOR**  
**TRANSFER AND RECYCLING FACILITY**  
**MASTER PLAN - IMPROVEMENTS-OPTION 3**  
**Draft Most Probable Cost Breakdown**  
 November 22, 2016

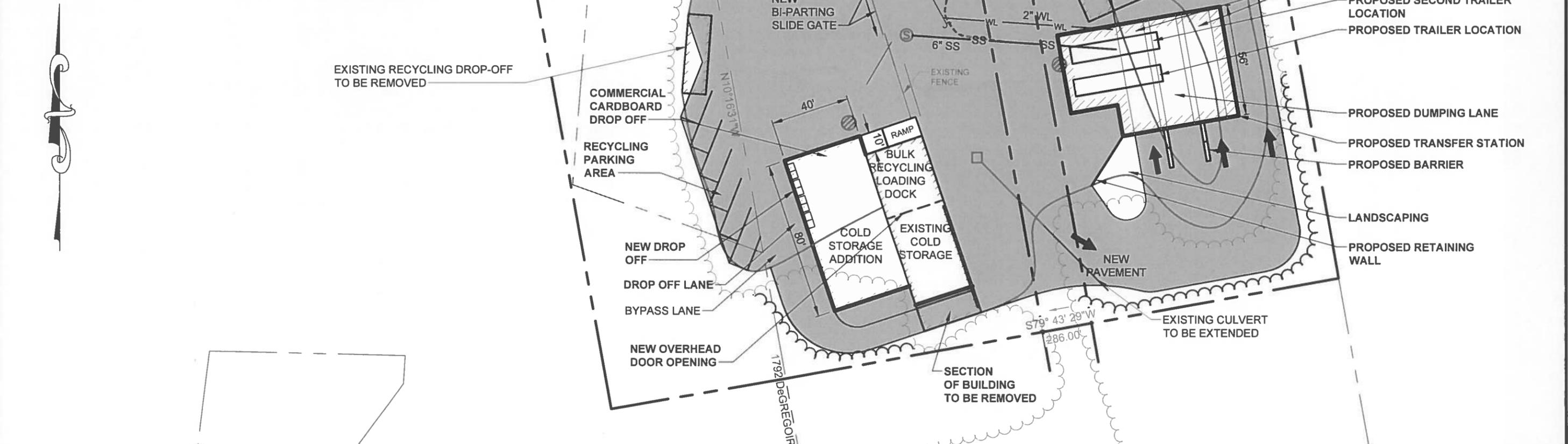
| DESCRIPTION  | QUANTITY | UNIT | UNIT PRICE      | TOTAL                  |
|--|----------|------|-----------------|------------------------|
| <b>TRANSFER STATION IMPROVEMENTS</b>                 |          |      |                 | <b>\$ 614,040.00</b>   |
| Demo Existing Transfer Station                       | 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> |

**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              |          |          |

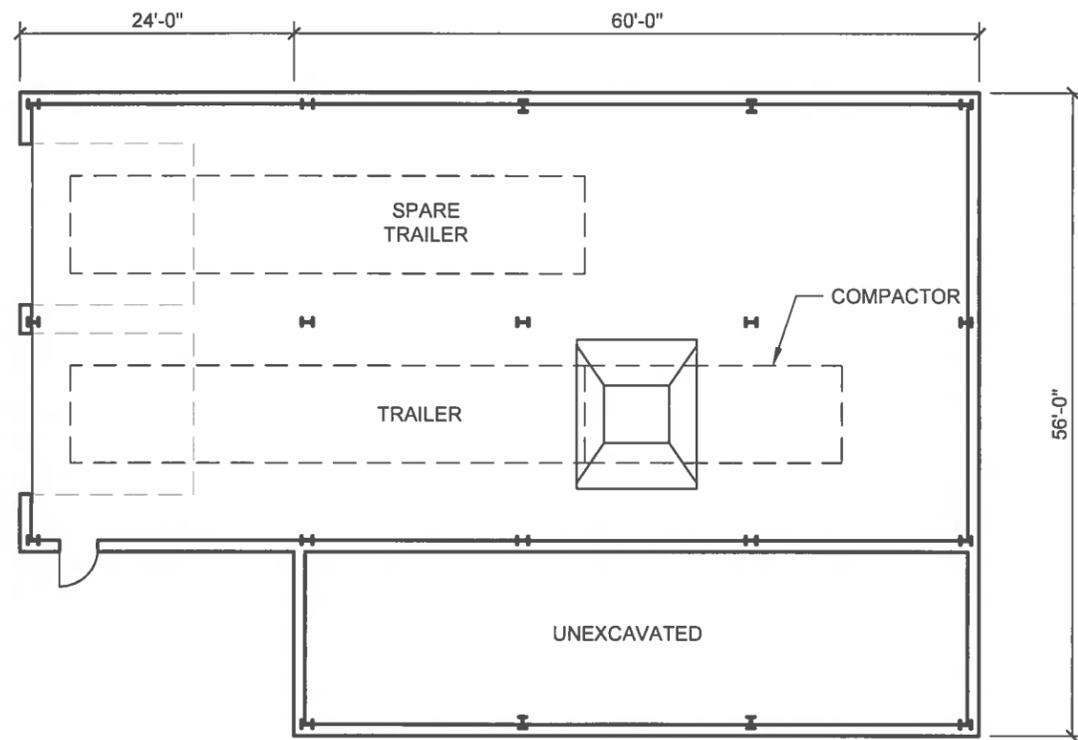
**SOURCE NOTE:**

"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.

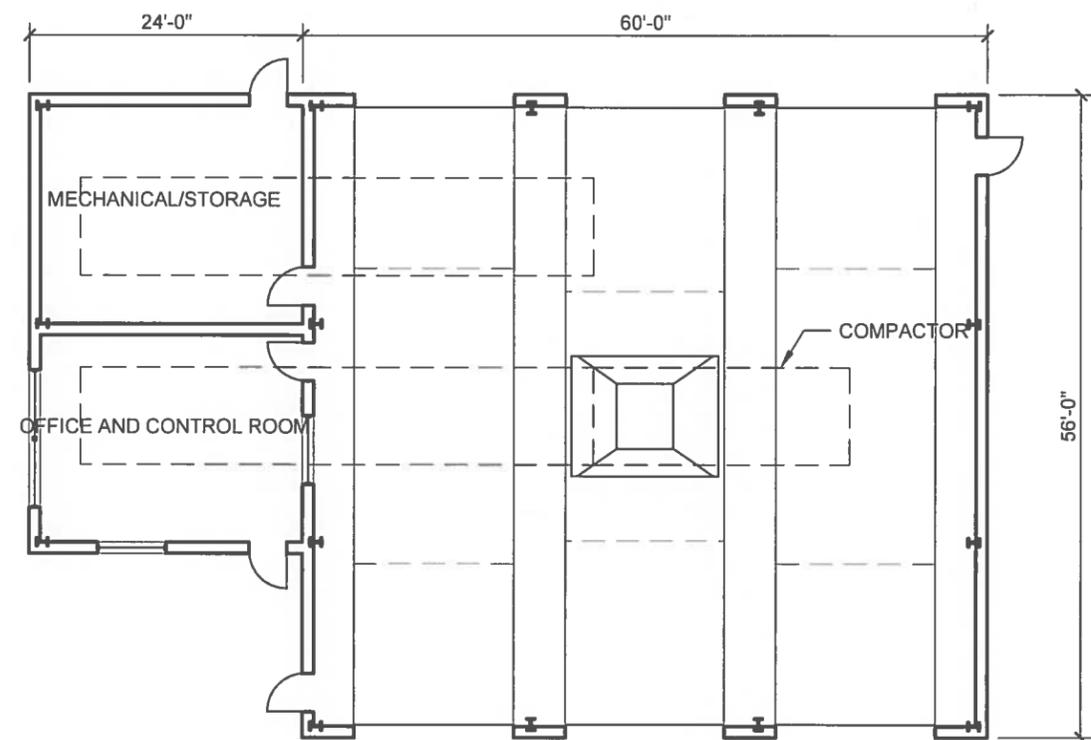


|                |  |        |             |             |            |             |  |              |  |
|----------------|--|--------|-------------|-------------|------------|-------------|--|--------------|--|
| PROJECT TITLE: | <b>TOWN OF BAR HARBOR - TRANSFER STATION<br/>BAR HARBOR, MAINE</b> | DWG:   | <b>C101</b> | BY:         | BTH/CWS    | REV:        |  | DESCRIPTION: |  |
| SHEET TITLE:   | <b>MASTER PLAN<br/>OPTION #1 CONCEPT SKETCH</b>                    | JN:    | 10156.002   | DATE:       | 11/23/2016 | REV DATE:   |  | DESCRIPTION: |  |
|                |  | SCALE: | 1" = 50'    | CHECKED BY: |            | ISSUE DATE: |  | DESCRIPTION: |  |





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



**PROPOSED FLOOR PLAN**  
SCALE: 1/16"=1'-0"

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

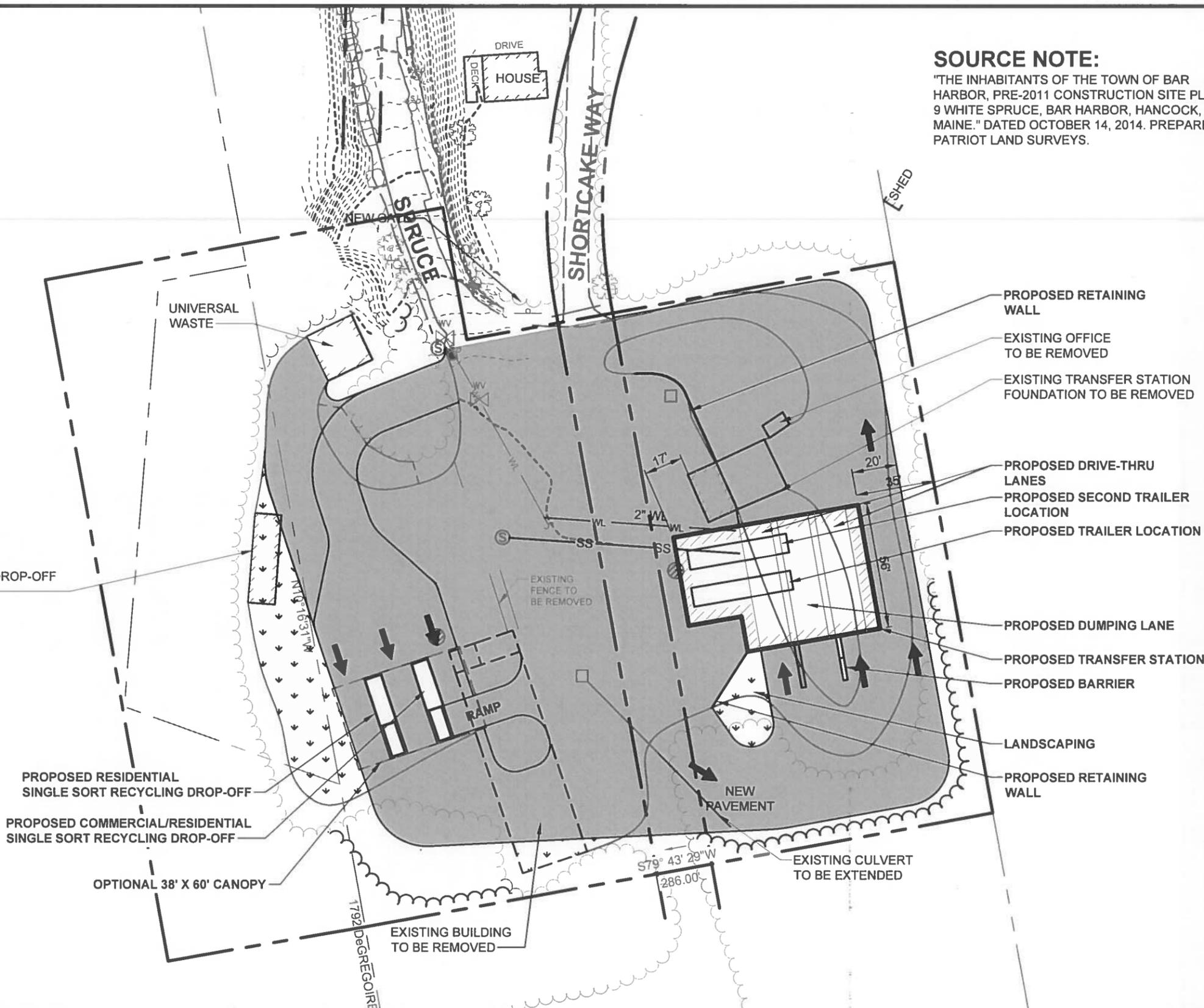


**LEGEND:**

| 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              |          |          |

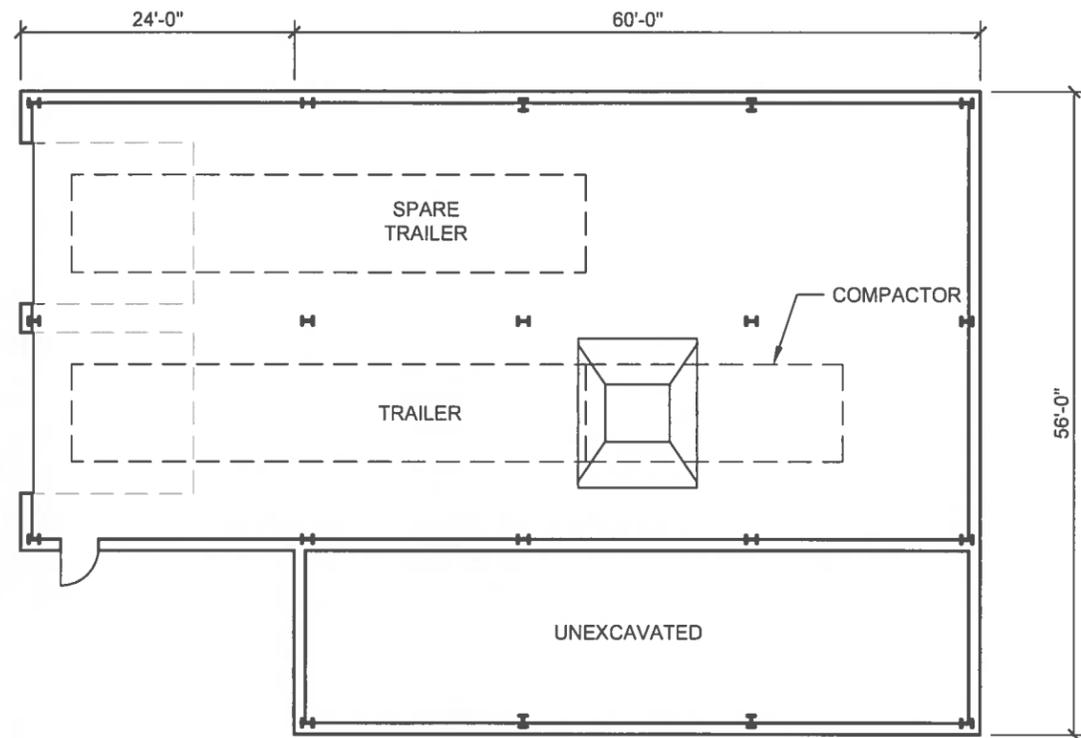
**SOURCE NOTE:**

"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.

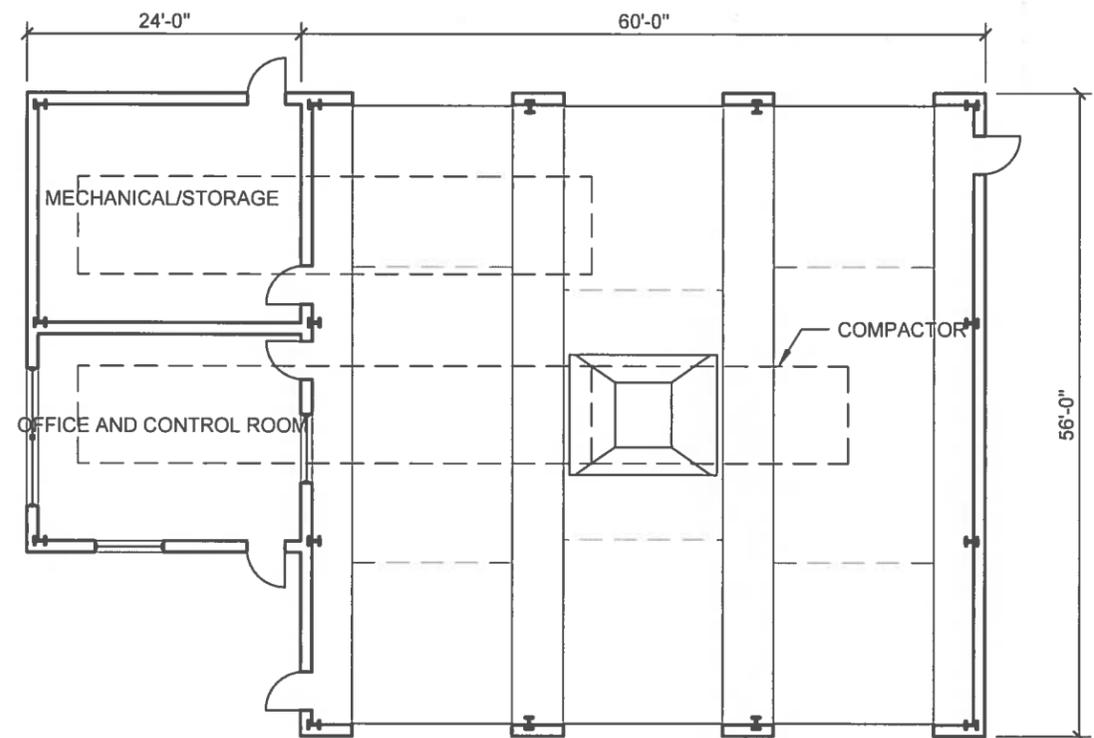


|                |  |        |             |             |            |             |  |              |  |
|----------------|--|--------|-------------|-------------|------------|-------------|--|--------------|--|
| PROJECT TITLE: | <b>TOWN OF BAR HARBOR - TRANSFER STATION<br/>BAR HARBOR, MAINE</b> |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





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



**PROPOSED FLOOR PLAN**  
SCALE: 1/16"=1'-0"

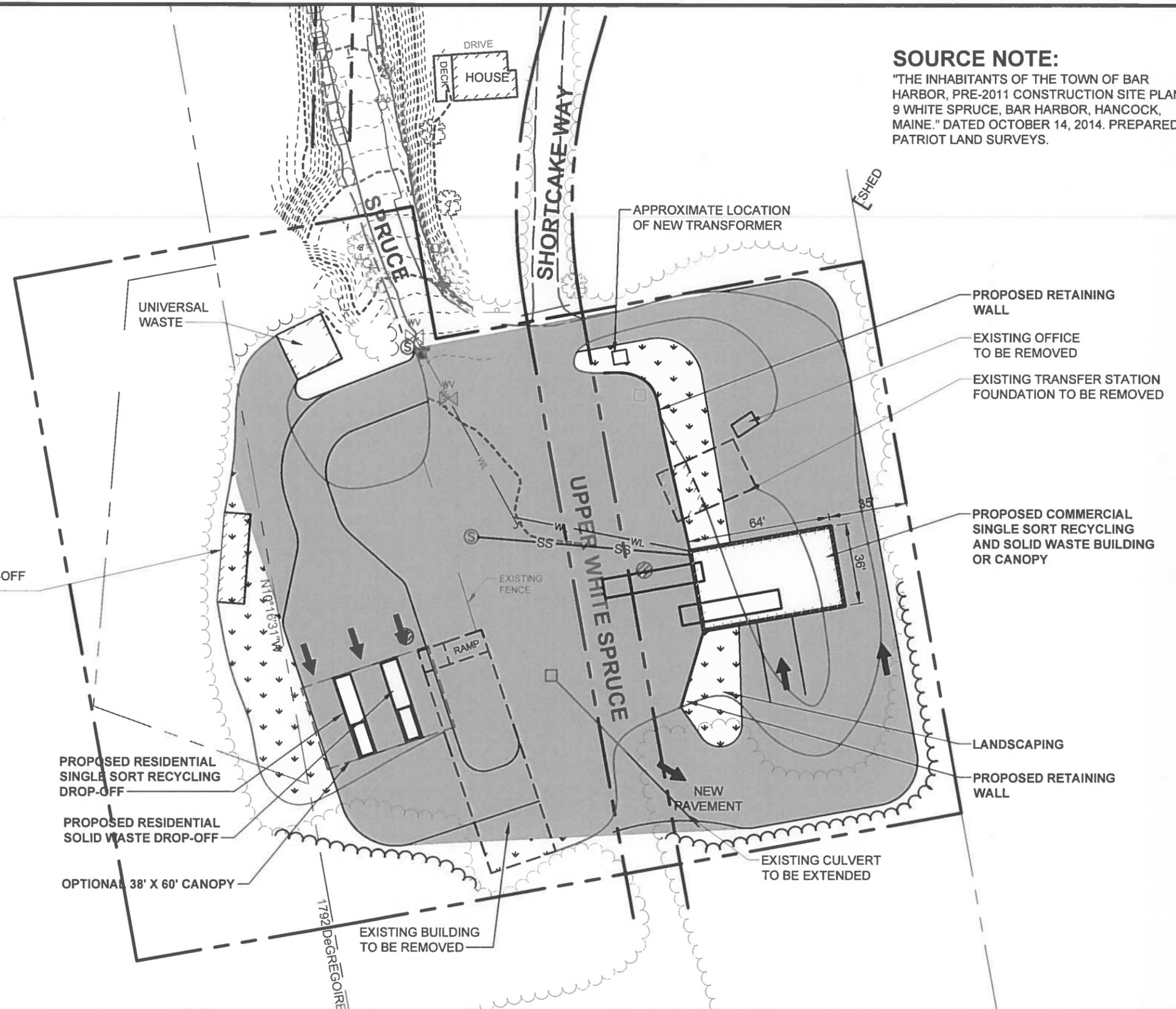
|                |  |        |                   |              |            |             |  |              |  |
|----------------|--|--------|-------------------|--------------|------------|-------------|--|--------------|--|
| PROJECT TITLE: | <b>TOWN OF BAR HARBOR - TRANSFER STATION<br/>BAR HARBOR,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



**LEGEND:**

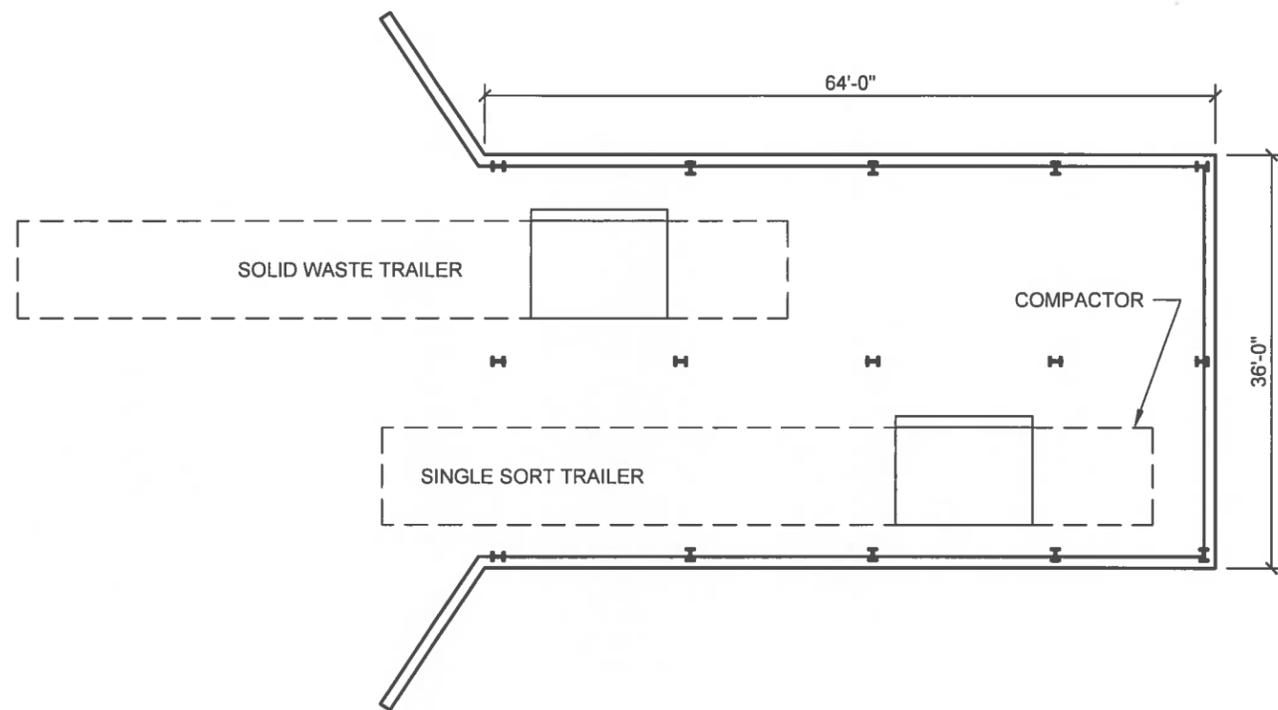
| DESCRIPTION           | EXISTING | PROPOSED |
|-----------------------|----------|----------|
| SEWER MANHOLE         |          |          |
| UTILITY POLE          |          |          |
| CATCH BASIN           |          |          |
| WATER SHUT OFF        |          |          |
| WATER VALVE           |          |          |
| 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.



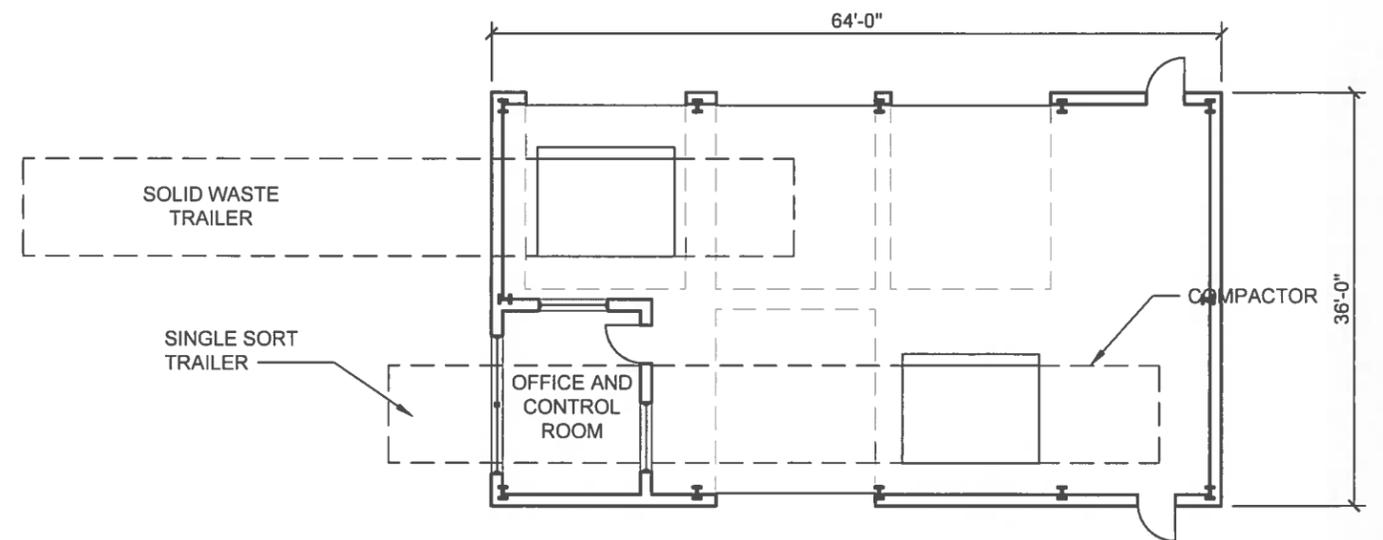
|                |  |        |             |              |            |             |  |              |  |
|----------------|--|--------|-------------|--------------|------------|-------------|--|--------------|--|
| PROJECT TITLE: | <b>TOWN OF BAR HARBOR - TRANSFER STATION<br/>BAR HARBOR, MAINE</b>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





**BASEMENT**

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



**PROPOSED FLOOR PLAN**

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

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

