



Town of Fairfield

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Public Works Administration

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To: Public Works Neighbors
From: Joseph Michelangelo P.E., Director of Public Works
Scott Bartlett, Public Works Superintendent
Date: June 17, 2016
Re: Public Works Yard Aggregate Recycling

Please find the following information regarding the Public Works Operations at the above referenced location. This is in preparation for the public meeting to be held Thursday June 23, 2016 at 7:00PM.

This should not be viewed as the ultimate document, just the best information at this time to facilitate the best approach to this issue. More information will be provided as the information is developed, and it will build upon this document.

Town Facilities on Richard White Way

The following is an overview of the Town's Operations on Richard White Way (formerly known as One Rod Highway).

Facilities under the control of the Public Works Department:

Fairfield Public Works Operations – 72 Town employees that perform the physical services on Town Roads, Winter Operations, Sidewalks, Parking Lots, Parks, Athletic Fields, Beaches, Marina, Buildings report to this location as their main work area.

Fairfield Wastewater Treatment Plant – 18 Town employees report to this site to operate a 9 million gallon per day wastewater treatment plant. These employees also maintain the collection system which is comprised of over 200 miles of pipe and 8 pump/lift stations.

Fairfield Transfer Station – This facility receives municipal solid waste and recycling. Town residents can bring their material to this site. Commercial haulers also bring material to this location from Fairfield residential and commercial customers. Solid Waste is hauled to the Waste to Energy Plant in Bridgeport on a daily basis. Comingled recyclables and other non-solid waste (scrap metals, electronics, propane tanks, etc.) are brought to the appropriate locations. Town employees are responsible for operations outside of the gate (weighting, charging, and administration) and a private contractor (Enviro) is responsible for operations inside of the gate and hauling.

Harvest New England Woody Debris Operations – The Town utilizes a private vendor for this operation. Town residents are able to dispose of grass clippings, brush and leaves free of charge. Public Works similarly disposes of materials there free of charge. In turn the vendor is able to produce and market various wood chips and mulches. Wood chips from this operation are utilized in the biosolids composting facility at the Wastewater Treatment Plant.

Aggregate Recycling Yard – The Town utilizes a private vendor to accept town aggregate debris – road sweeping, decanted catch basin cleaning, trench excavations, sidewalk and road excavations, concrete catch basins tops and parts, concrete, asphalt pavements, asphalt and concrete curbing, beach comings, dredging, etc. The vendor accepts other materials and crushes, sorts, and blends to create a usable aggregate product.

Facilities under the control of other Town Departments:

Fairfield Conservation Garage – 5 Town employees work out of this facility. These employees maintain the Towns Conservation / Open Space lands, and also some of the dike / tide gate systems.

Fairfield Fire Training Center – Provides training for Fairfield Firefighters and those from other communities. Currently under reconstruction.

Animal Control Facility – A division of the Police Department. There operations are based out of this facility, and there is animal housing at this location.

School Bus Lot – All school buses which service Fairfield Schools are housed at this location, as is a fueling station and small office. School Bus Drivers and Public Works employees park their personal vehicle adjacent to this lot during their workday.

Focusing specifically on the Aggregate Recycling Yard

1. Fairfield Public Works generates several tons of earth material on an annual basis from our work – roads, sidewalks, parking lots, drainage, sewer and site construction. The material can be old concrete pipe, concrete footings, catch basin tops and parts, broken curbing, road excavations, street sweepings, catch basin cleanings, beach shells & seaweed, spoils from trench excavations, organic soils, channel dredging, limited asphalt, etc. Although most of the material generated is from maintenance type function, the exact quantity of material generated in a given year will vary due to additional projects.
2. Fairfield Public Works utilize earth materials in new projects. This includes roads, sidewalks, parking lots, drainage, sewer, site construction, beach nourishment, etc.

The material generated by Public Works is brought to the Public Works yard, and has been placed in a 5.9 acre area southwest corner of our property for years.

The overall goal has always been to convert the material brought in, into material that can be reused. The method it is converted is through segregating, crushing, sorting, mixing, etc. Much of the material the Public Works Departments generates can't be converted as is. It needs to be blended, diluted with other material to be a valuable and marketable commodity. Thus other material needs to be imported to accomplish this - stone, earth, concrete are ideal. The importing of additional asphalt or sand does not help the cause, as that has be converted too. Boney type material with high gravel, rock, or concrete is the best to be blended with the existing spoils.

This operation has been conducted in the same location for four decades. This served the purpose well for many years. The Town has utilized a contracted vendor to perform this work. Vendors are better equipped to receive and sell materials to a host of other contractors and construction projects. It is not a business that a government would be adept at. This also saved the cost of Town employees or equipment performing this work. One of the operational issues over the years was the vendors would treat this as a part time operation, and not be available when Public Works either need to dump material from a job site, nor be there when we needed material.

In the transition from DPW Director Richard White to myself in August 2012, Mr. White felt that the remaining material in the pile was “less desirable”, i.e. most of the better quality and

easily salable material had been siphoned off already. He estimated the historical material, or inherited material, at 40,000 cubic yards. He also felt that from a market economics standpoint, continuing to process the material into a salable product was no longer viable.

To give a context on what this quantity represents, a box 200' x 200' x 27' is exactly 40,000 cubic yards. To translate this into a typical stockpile with 1:1 slope sides, a 27' high pile of this quantity has a bottom diameter of about 225'.

Mr. White felt the only option was to pay to have the material removed, which he estimated at a cost of \$10/ cubic yard. This would have created a total cost of \$400,000 to remove the existing pile.

I reviewed this with Public Works Superintendent Scott Bartlett, who had been with the Town of Fairfield his entire career, beginning in the early 1980's. Some of the observations at that time:

- a. With the Town's activities in the fall of 2012, the pile had grown in excess of Mr. White's estimate. When the RFQ was advertised in spring 2013, it was simply stated as "well over 40,000 cubic yards.
- b. The cost of removing the material off site, including trucking, would be in excess of the \$10/ cubic yard estimate.
- c. Although the remaining dregs would be tougher to convert, the material had the potential to be economically converted to a salable product.
- d. There is no viable cost effective avenue to send our excess materials; we would still have to conduct these operations in some form.

Thus a formal Request for Proposal was issued through the Town Purchasing Department, and the work was awarded to Julian Enterprises in late spring 2013.

Since the award of the work to Julian in 2013;

Julian has been able to make a dent in the historical inherited pile. Much of this material on site has been converted into valuable products that can be sold – processed gravel, clean fill, crushed stone, sand bedding, and topsoil. Because this has value, it is currently leaving the site on a steady basis (3,000 to 4,000 tons/week). We are confident that a substantial amount will leave the site this 2016 construction season. The amount of material on site has not been reduced since the original start of the contract. However, the historical material has been reduced. Much of the material currently has either been already processed, and there is material that is more readily processed (in comparison to the historic dregs)

Although material needs to be imported for the conversion to work, too much material has been allowed to be brought on site. This has created large visual piles, along with the nuisances of noise associated with trucking and crushing. It has created a dis-satisfaction with our neighbors to the south and the west. Once we reduce the historical pile we can get to a steady

state point. When we got to that stage, we will only have to deal with the daily generated material. To have enough material to blend the pile into something valuable, more material may be needed to be input.

Although Julian has been producing high quality material, much of it is stockpiled on site. This is good for Julian in that they have a supply on hand whenever a customer needs it; this is not good for the Town and our neighbors for visual and aesthetic reasons.

There is more material on site than before the start of the contract. The original RFQ stated “well over 40,000 cubic yards” were above elevation 30. Although there is more overall material on site than at the start of the contract, much of the material has been converted; there is less of the undesirable material on site. As far as an overall estimation on the amount of material on site (over elevation 30’) I would put that at approximately 60,000 C.Y. Once again, although it provides little immediate satisfaction to our neighbors, the current material on the site has more valuable material and not as much “less desirable”. Perhaps more importantly, there is a path to removing the historic stockpile. Once we reach that equilibrium, we can bring a limited quantity of material in, process it in a confined location under screening, and send it off site

Going forward, we will work with our neighbors to come to a solution that will be acceptable. I would like to propose the following as a starting point:

Public Works needs to be able to have a location to deposit our spoils, and convert it to usable material. Other options for trucking material to other locations are not practical to allow us to conduct Public Works Operations.

The existing flat “table top” sits at approximate elevation 24’ (1988 NAVD). For reference points, this is the elevation of the scale on site, and the ground elevation at the construction trailer. As another reference point, the Coastal Jurisdiction Line (CJL) at Pine Creek is at elevation 5.2’ and the elevation of the Flood Plain along the south embankment is 15’.

Once the historical pile is reduced and eliminate, processing the material we generate by mixing it with a limited quantity of imported material, will be able to be conducted with minimal impact to adjoining neighbors.

The landscape architect is creating a plan which will create a sloped terrain to shield the Public Works Operations (aggregate recycling and other work). This will be along the southern and western portion of the 5.9 acre area. This will reduce the square footage of the area that can be used for aggregate recycling. Less square footage limits the amount of material that can be stockpiled on site at any time. The maximum height of the pile will be largely determined by the height of the screening.

We will also work with environmental professionals to address the environmental concerns from the site itself, and to the adjacent salt water marshes and our neighbors.

