March 8, 2016

Mr. Lou Pizzuti
Maine Department of Environmental Protection
Bureau of Remediation and Waste Management
17 State House Station
Augusta, Maine 04333-0017

Re: Processing Facility Application DEP# S-022458-WK-A-N | Requested Clarification and Additional Information Response

Dear Mr. Pizzuti:

On behalf of Fiberight, LLC (Fiberight) and the Municipal Review Committee (MRC), CES, Inc. (CES) is providing the following responses to your request for clarification and information in addition to the Solid Waste Processing license application submitted in June 2015 and the subsequent Deliverables (#1-#23).

We have provided responses to the letter dated February 3, 2016, from Lou Pizzuti sent to Craig Stuart-Paul (CEO, Fiberight) and Greg Lounder (Executive Director, MRC) followed by responses to the memo prepared by Victoria Eleftheriou. Where applicable, documents provided in support of each response are attached and numbered according to the section under which the information was requested.

Should you have any questions regarding the information provided, please feel free to contact us.

Sincerely,
CES, Inc.

Kyle Sullivan
Senior Project Scientist

Denis St. Peter, P.E.
Principal / Senior Project Manager

KS/DSP/jok
Attachments

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SENSIBLE SOLUTIONS

CES INC

PROCESSING FACILITY APPLICATION

MDEP REQUESTED CLARIFICATION AND ADDITIONAL INFORMATION RESPONSE

SOLID WASTE PROCESSING AND RECYCLING FACILITY
HAMPDEN, MAINE

Applicant: Municipal Review Committee, Inc.
395 State Street
Ellsworth, ME 04605
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Applicant: Fiberight LLC
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MARCH 2016
JN: 11293.001

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February 3, 2016 Letter Responses

Attachment 7, Financial Ability

Comment: *Once completed, the finalized supporting financial documents need to be submitted.*

Response: We understand MDEP is requesting financial ability submission materials for Covanta, who has been added as an investor in the project. The submission materials are included in Attachment 7 and additional supporting material in Attachment 8.

Attachment 8, Technical Ability

Comment: *This section must include a description of the personnel employed to design, construct, operate, maintain, and close the proposed processing facility. It is our understanding that Covanta will be the facility operator. This should be verified and Covanta's qualifications and experience should be described.*

Response: A corporate overview of Covanta, a discussion of qualifications and experience, financial strength, and health and safety programs are included in Attachment 8.

Attachment 9, Disclosure Statement

Comment: *Covanta's interest in the project needs clarification. If their interest meets the licensing criteria contained in General Provisions, 06-096 CMR 400(12) (last amended April 6, 2015), supporting disclosure information must be submitted for Covanta.*

Response: Covanta will provide the necessary disclosure documents for those employees that will have direct executive and managerial responsibility for the Fiberight Facility.

Attachment 11 & 16, Fitting Harmoniously into the Natural Environment and Existing Uses and Scenic Character

Comment: *Comments from the Department of Inland Fisheries and Wildlife previously provided in a March 18, 2015 Letter regarding maintenance of winter shelter for deer and minimizing impacts to bat habitat and habitat components still need to be formally addressed in the Application.*

Response: A memo prepared by Roger St. Amand of CES is included in Attachment 11&16. The memo discusses the most current correspondence between CES and the Army Corp of Engineers in regard to deer wintering areas and long-eared bat habitat.

Attachment 12, Site Design Information

Comment: *This section states that a surface water monitoring point is shown on the Overall Site Plan; however, the monitoring point is not illustrated on the plan and the Application does not mention that surface water will be monitored. A clarification should be provided.*

Response: Based on current information, there are no planned surface water monitoring points. References to a "surface water monitoring point" have been removed from Attachment 12. Revised text is included as Attachment 12.

Attachment 13, Process Design Information

Comment:

1. *The third section, "Characteristics of Waste to be Received," should include a discussion of the actual materials that will be accepted at the facility. This section includes a general definition of municipal solid waste which mentions front end process residue (FEPR) and construction and demolition debris. We assume that these materials will not be accepted at the facility. A clarification should be provided.*

Response:

1. The definition of solid waste includes front end process residues (FEPR) and construction and demolition debris. Fiberight does not intend to receive these types of solid waste from sources that have pre-separated these solid wastes or loads of waste in which these solid wastes are the primary constituent.

Comment:

2. *The section, "Products and Waste Generated" states that a breakdown of residues to be landfilled is included; however, we could not find this breakdown. A recent mass balance summary was provided to the Department and includes this breakdown. The mass balance summary should be appended to the facility Operations Manual and should be consistent with the process flow diagram.*

Response:

2. A revised mass balance that is consistent with the process flow diagram has been provided and is attached to this letter as attachment 25. A copy of this mass balance summary will be appended to the facility Operations Manual.

Comment:

3. *The approximate timeframe to fill a residue storage container should be provided. The description for residue storage states that residues will not be stored on site for longer than 24 hours, then states a full container will be transferred within 24 hours.*

Response:

3. There are multiple containers that will be used to collect and dispose of plant residues. The residues as detailed in the mass balance summary including: bulkies, textiles, trash, and combined diffused air flotation (DAF) residues will either be routed directly and/or loaded into a staged dump or walking floor trailer. With the volumes of these materials being produced, it is expected that this trailer will be filled every 3-4 hours depending on the overall average density of the combined residue stream. The total grit and glass will be deposited into a 40 cubic yard container, of which one would be filled in 23-24 hours. The combined boiler ash will also be deposited into a separate 40 cubic yard container, of which one would be filled in 18-19 hours.

Comment:

4. *Additional information regarding the ash handling system should be provided including whether bottom and fly ash will be combined or stored separately and provisions for dust control, if necessary.*

Response:

4. The system being utilized to collect boiler bottom ash and fly ash has been designed to minimize any air-borne dust. The Hurst boiler system includes two multi-cyclone collectors that capture the fly ash which is then routed to the wet ash conveyor where it is combined with the wet ash. This is done by a closed duct/conveying system to avoid any air-borne dust escaping. The dust collected in the baghouse is also sent to the wet ash conveyor in a similar manner using closed ash chutes/conveyors to allow it to mix with the wet ash stream. The final combined ash stream exiting the wet ash conveyor contains adequate moisture to eliminate any potential dust emissions and is conveyed to a staged container to be transferred for ultimate disposal.

Comment:

5. *The amount of post-hydrolysis solids (PHS) storage space needed and the timeframe for its storage should be provided. PHS may be stockpiled on the floor in the event it cannot be immediately fed into the boiler.*

Response:

5. There will be adequate floor storage allocated for approximately 12 hours' worth of PHS production, essentially providing one shift to trouble shoot and remedy any issue preventing the normal processing of the PHS.

Comment:

6. *An energy mass balance will be helpful in understanding the energy needs of the facility during a given period of time. The quantity of PHS and sludge from the dissolved air filtration (DAF) system expected to be produced, the quantity of PHS/DAF sludge needed as fuel and the quantity of supplemental fuel anticipated should be estimated. This will assist in our understanding of the process as well*

confirm that there will not be an excess of fuel (PHS) that will ultimately require disposal. Deliverable #3 specifies that natural gas and bio-methane will be used as supplemental fuel for cold starts, hot starts and temperature control scenarios.

Response:

6. The average quantity of PHS to be produced is approximately 11.25 tons per hour at 50% moisture. The average quantity of DAF sludge to be produced is approximately 0.75 tons per hour; however, it is not planned to use this material as a portion of the solid fuel for the biomass boiler. The steam produced from the two biomass boilers will be directed to a back pressure steam turbine generator (BPSTG) to produce process steam and power as well as to a fully condensing steam turbine generator (FCSTG) to produce additional power. All the energy produced by both STG's will be used internally. The average total expected energy requirement for the facility will be 3.2 MW. The energy generated by the steam produced by the two biomass boilers each processing 11.25 tons per hour of PHS is 3.1 MW as shown on the attached PHS Boiler/Steam Turbine Generator Summary included in Attachment 13. If there is a shortfall of energy produced, the required energy required will be purchased from Emera, the local utility company.

Attachment 15, Traffic

Comment:

1. *The data source for MSW delivery vehicle percentages should be provided.*

Response:

1. The data used for determination of MSW delivery vehicle percentages was provided by MRC. This data was based on daily waste receipts and truck percentages at the Penobscot Energy Recovery Company facility during 2014.

Comment:

2. *The expected morning and afternoon peak delivery times and the hours during which the facility will accept MSW delivery should be stated.*

Response:

2. Waste will be accepted Monday through Friday between the hours of 07:00 and 17:00 and Saturday mornings. The peak morning delivery time will vary day to day based on the location of the wastes' source municipality and will likely be between the hours of 7:00 AM to 10:00 AM. Although the peak hour will not be the same every day due to the fact that MSW will be arriving from municipalities located at varying distances from the facility, it is likely that weekly schedules will be established, over time, so that the peak hours on each week day will become predictable.

Afternoon traffic will most likely be the highest between the hours of 15:00 and 16:00 PM. This is when administration personnel and first shift workers get out of work. This, coupled with waste deliveries, will most likely place the afternoon peak traffic during these hours.

Comment:

3. *The inventory and analysis of accidents from Maine DOT is missing even numbered pages. These pages need to be provided.*

Response:

3. The complete Maine Department of Transportation Accident Reports are included in Attachment 15. These reports include the previously omitted even pages.

Attachment 17, Air Quality

Comment: *This section states that nuisance odors are expected to be contained within the building based on operations at comparable facilities. Additional information regarding which facilities were used for comparison and what information was obtained about them to reach this conclusion should be provided. Information from the existing Virginia facility may also be helpful.*

Response: The proposed Hampden facility operations and the configuration of the odor control system at Fiberight are unique. The unique configuration of the facility makes a direct comparison of odor control systems and operations with similar facilities in Maine impossible. The only other operationally similar facility is the Fiberight facility located in Lawrenceville, Virginia. The Lawrenceville, Virginia facility is smaller but operates in a similar manner to the proposed Hampden facility. According to Fiberight, there have been no odor related complaints at the Virginia facility. Fiberight will be the only solid waste processing facility that utilizes an ambient air capture system and an odor control scrubber system to control odors in the structure. Any odors that will be generated in the unprocessed waste storage and primary waste processing steps of the processing lines will be treated by the odor control system. Fiberight has designed the building to minimize the escape of potential nuisance odors from the structure.

Fiberight and MRC chose the proposed site, in part, based on its location in respect to separation from occupied buildings. The nearest occupied residence is located at a distance of approximately 3500' and is buffered by a generally forested area. Seasonal prevailing wind directions were evaluated based on 5 years of meteorological data collected at the Bangor International Airport (BIA). Given the proximity of BIA to the proposed site, and the similarities in topography, this data should be representative of the prevailing wind directions at the proposed site. During the spring and summer months when the potential for nuisance odors to

exist is generally higher, the prevailing wind direction is to the north. This direction is away from the closest residences. During the autumn and winter months when the potential for nuisance odor generation is the lowest, the prevailing wind direction is to the southeast. Neither of the conditions will convey potential nuisance odors in the direction of the nearest residences.

Nuisance odors could, potentially, be generated by trucks during queuing and departure from the site. Fiberight will implement daily facility inspections for the first month of full load operation. The inspections will continue on a daily basis if odor issues are identified. If the facility does not identify odor sources during the initial month of inspections, the inspection will be reduced to weekly. The inspections are performed in order to identify areas on-site that may be prone to accumulation of odor causing debris or spillage. The inspections will document current meteorological conditions and cleanliness of exterior operational areas at which there is the potential for nuisance odor generation in order to respond preemptively to avoid nuisance odor complaints. The Odor Management component of the O&M (Attachment 23) was revised to include the proposed inspection schedule and the form to be used.

Attachment 20, Utilities

Comment: *Previously requested information regarding the electrical utility connection location and Bangor Natural Gas pipeline upgrades still need to be provided. Once finalized, the facility's wastewater discharge permit, the contract/agreement with Waste Management and other pertinent agreements should be provided and appended to the Operations Manual.*

Response: The electrical utility connection will follow the access road from Coldbrook Road to the facility. The connection to the facility will be at the northernmost corner of the processing building. Sheet C101 has been updated to include this connection which is included in Attachment #20.

Pertinent agreements and contracts will be provided to MDEP and appended to the O&M manual.

Attachment 22, Residuals and Waste Derived Product Distribution List

Comment:

1. *The finalized agreement reached with Bangor Natural Gas to accept biogas into the pipeline will need to be provided for the project file.*

Response:

1. Attachment 22 includes a letter from Bangor Natural Gas confirming the expected condition of the pipeline when Fiberight comes online. When the agreement to accept gas to the pipeline is finalized, the agreement will be submitted to MDEP.

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Comment:

2. *Fiberight's process description refers to manufacturing an energy bale from combustible rejects while the Operations Manual refers to producing an energy bale or engineered fuel pellet. It is unclear if Fiberight intends to manufacture this type of product. If so, additional information regarding the product constituents and the intended end use need to be provided. Additionally, it is likely that a license pursuant to Beneficial Use of Solid Wastes 06-096 CMR 418 (last amended April 6, 2015) must be obtained.*

Response:

2. Fiberight does not intend to produce energy bales or pellets. At the time of the initial license application submittal, Fiberight was considering the potential for production of such a product but has since decided against including it in their process. The O&M included in Attachment 23 has been updated to reflect this clarification.

Attachment 23, Operations & Maintenance Manual

Comment:

1. *B.9, Routine Maintenance and General Cleanliness: The site-specific inspection and maintenance plan recommended by Victoria should include both indoor and outdoor components. In addition, a tipping floor management plan needs to be developed and include a discussion of MSW management within the tipping floor and unprocessed MSW storage areas.*

Response:

1. B.9, Routine Maintenance and Cleanliness: Section B.9 of the O&M has been updated to include site specific inspections and a maintenance plan including indoor and outdoor elements. Section B.11 was added to the O&M to include MSW management on the tipping floor. The revised O&M Manual is included in Attachment 23.

Comment:

2. *D.1, Acceptable Waste, Section 1 should describe how unacceptable waste will be handled. The facility needs to have a procedure for random inspection of incoming loads for hazardous or special wastes, and for preparing reports on the inspections. The location, design, size, and construction of the interim storage area must be shown on the facility site plan.*

Response:

2. D.1, Acceptable Waste: Screening for unacceptable waste will start at the scale house where the scale house attendant will randomly interview drivers as to the contents of their loads. A list of common unacceptable items will be clearly posted at the scale house. During the unloading process on the tip floor, a tip floor attendant will observe the loads as they are unloaded and examine any material suspected of being

unacceptable waste. Additionally, the loader operator will continuously look for material that may appear to be unacceptable waste as the incoming material is spread, stockpiled, and eventually fed onto the conveyors feeding the Primary Sort Process. There will be a designated safe area on the side of the tip floor where a container(s) will be positioned such that any unacceptable waste will be set aside for temporary storage until appropriate disposal can be arranged.

Comment:

3. *D.3, Secondary Materials may need to be revised if an energy bale or fuel pellet will be manufactured.*

Response:

3. D.3, Secondary Materials: Fiberight will not be producing energy bales or energy pellets, and the O&M included in Attachment 23 has been revised to reflect the facility's planned operations.

Comment:

4. *D.4, Section 0.4 states that no liquid waste will be generated, except process wastewater from periodically purging the plant water system. Elsewhere the Application states that 36,000 gpd of wastewater will be generated. It is our understanding that the wastewater output will be 36,000 gpd. A clarification should be provided.*

Response:

4. D.4, Clarification of Wastewater Quantity: The Mass Balance information provided to the MDEP has been updated to reflect the latest facility design information. The current expected average wastewater discharge will be 150,000 gallons per day. The wastewater is primarily made up of cooling tower blowdown accounting for roughly 66% of the wastewater discharged from the facility. Purge water from the waste processing system is approximately 33% of the wastewater generated, and there is a small contribution from the sanitary sewer system. Fiberight and CES are working with the Bangor Sewer District to accept this wastewater. A letter from Bangor Sewer District is included in Attachment 20.

Comment:

5. *I., Annual Report: Items 1-4 will also need to include type of wastes, products, secondary materials, and residuals. Item 5 will need to include any responses to complaints received. Other necessary annual report information includes a complete description of residues leaving the site for disposal, including type and weight by destination, and data and results of waste characterization and analysis. The annual report will also need to include the demonstration required by Processing Facilities, 06-096 CMR 409(4)(1)(d) and (e) (last amended July 27, 2014).*

Response:

5. I., Annual Report: The annual inspection section of the O&M manual was updated to include the additional requested information and is included in Attachment 23.

Attachment 25, Solid Waste Hierarchy

Comment: *Additional information is needed in order to determine whether the facility "will recycle or process into fuel for combustion all waste accepted at the facility to the maximum extent practicable, but in no case at a rate less than 50%" in accordance with 06-096 CMR 409(2)(C). The conclusion states that the proposed processing system "significantly reduces the volume of solid waste needing land disposal," but does not provide a quantitative summary. The quantitative summary should be derived from the facility mass balance once the input water is reconciled with the purge water shown on the recently revised mass balance table. This information should be provided.*

Response: In accordance with 06-096 CMR 409(2)(C) Fiberight "will recycle or process into fuel for combustion all waste accepted at the facility to the maximum extent practicable but in no case at a rate less than 50%". The attached revised mass balance and associated "Block Diagram – As Received Mass Balance" provide a quantitative summary and has been revised to account for water inputs to the processing system. Water is added to the process during the secondary sort and fines processing. Water is added in the form of steam during pulping, hydrolysis pretreatment, and anaerobic digester feed preparation.

As estimated in the mass balance summary, between 475 and 525 tons per day of waste will be diverted from landfills. The overall percentage of waste recycled or processed into fuel (e.g., PHS, biogas, wood, alternative daily cover, aggregate material for construction) at the Fiberight facility is anticipated to range between 70% and 80%, dependent upon the actual composition of the waste.

Response to Memorandum Dated February 3, 2016

From: Victoria Eleftheriou, P.E., Environmental Engineering Service Manager – Division of Technical Services

To: Lou Pizzuti, Environmental Specialist-Division Of Solid Waste Management

Attachment 1, Description

Comment: *This section notes that the facility will be designed to accept up to 650 tons of MSW per day; however, Attachment 13 specifies that the facility will be designed to accept up to 950 tons and process up to 650 tons of MSW per day. We assume that the latter is correct. If so, a plan to effectively manage the additional 300 tons per day during full-scale production should be developed.*

Response: Since the MSW will be delivered to the facility on a six day basis, in order to process 650 ton per day (TPD), seven days a week, the average daily delivery would need to be 758 TPD. Since the Saturday deliveries will be limited, it has been assumed that the deliveries will actually be on a five and a half day basis, which increases the average daily delivery requirement to 827 TPD. Additionally, since it cannot be guaranteed that the MSW deliveries will be distributed equally on every delivery day, facilities such as this need to be able to handle an expected peak delivery day from the perspective of traffic, scale turnaround time, and MSW storage and handling. A reasonable peak delivery day factor of fifteen percent has been added to the average daily delivery tonnage of 827 TPD bringing the peak delivery day total to 951 TPD. The access road, scale position, and MSW storage and handling facilities have been designed to handle the above stated weekly and peak delivery pattern.

Attachment 12, Proposed Site Plan (Updated with Deliverable 23)

Comment:

1. *Riprap protection should be provided at the pipe outlets from the vegetated underdrain soil filters and roofline edge filters, the 6-inch pipe inlet and outlet from the tank area to soil filter #1 and the pipe inlet to the proposed 18-inch storm drain. Supporting sizing calculations should be provided. A typical culvert inlet/outlet protection detail is illustrated on Sheet C502 and specifies a d_{50} of 6 inches.*

Response:

1. Sheet C101, The proposed Site Plan has been updated to include rip-rap protection at the vegetated underdrain soil filter and roofline edge filter pipe outlets, the 6-inch pipe inlet and outlet from the tank area to soil filter #1, and the pipe inlet to the proposed 18-inch storm drain. The revised site plan is included in Attachment 20. Supporting size calculations are included in Attachment 12.

Comment:

2. *A roofline drip strip is illustrated on the northernmost edge of the proposed building; however, an outlet pipe is not shown and an edge filter was not modelled in this location within the stormwater hydrologic calculations. A clarification should be made as necessary.*

Response:

2. The drip strip located on the northernmost edge of the building is not intended to operate as a stormwater Best Management Practice (BMP). Sheet C101 has been revised accordingly and is included in Attachment 20.

Subsurface Investigation Information

Comment:

1. *S.W. Cole's Report incorporating their final recommendations along with the details of their additional auger probes should be provided at this time. CES notes that the final report was anticipated in June 2015.*

Response:

1. The *Exploration and Geotechnical Engineering Services* (August 17, 2015) report prepared by S.W. Cole is included in Attachment 12.

Comment:

2. *We recommend that S.W. Cole or an alternate qualified professional be retained to provide construction quality assurance and testing services to verify that the design components related to earthworks and stormwater management are appropriately implemented.*

Response:

2. Appropriately trained and qualified personnel will be retained to provide construction quality assurance during earthwork and to ensure stormwater management is appropriately implemented.

Attachment 17, Air Quality

Comment: *G. Odor Control. CES should provide a comparative evaluation with similar existing facilities considering all potential odor sources and site-specific factors such as topographical and meteorological conditions that demonstrates that the proposed facility will not create nuisance odor at occupied buildings. We discussed the need for this additional information with CES, MRC and Fiberight during our October 2015 meeting. CES noted that this information would be submitted as part of Deliverable #19. We do not have a record of this information being submitted to date. The information should be submitted at this time.*

Response: Please see previous discussion in response to Mr. Pizzuti.

Attachment 18A, Basic Standards Submission

Maintenance Plan of Stormwater Management System

Comment:

1. *B.1., Vegetated Areas. The vegetation within the grassed underdrain soil filter should be rototilled if the filter area does not drain within 48 hours to reestablish the soil's filtration capacity.*

Response:

1. B.1., Vegetated Areas: Attachment 18A has been revised to specify that the grassed underdrain will be rototilled if the filter area does not drain within 48 hours in order to re-establish filtration capacity. The revised attachment is included as Attachment 18A

Comment:

2. *B.2. a., Soil Filter Inspection. For clarity, this section should be updated to specify that the soil filter will be inspected at least once every six months to ensure that it is draining within 48 hours following a 1-inch storm or greater for conformance with Maine's Stormwater Best Management Practices Manual, updated May 2014. In addition, following storms that fill the system to overflow, the system must drain in no less than 36 to 60 hours.*

Response:

2. B.2.a., Soil Filter Inspection: This section of the O&M has been updated to read "the filter should be inspected at least once every six months to ensure that it is draining within 48 hours following an 1 inch or greater rain storm; and that, following storms that fill the area to overflow, the area must drain in no less than 36 to 60 hours. If the system drains too fast, the orifice on the underdrain outlet may need to be modified."

Attachment 21, Flooding

Comment: *Post Development Drainage. For clarity, the post developed hydrology plan illustrates 9 not 8 distinct drainage areas. Subarea 9, a 0.33-acre area to the northwest of the proposed building, was inadvertently not included within the narrative but was included within the hydrologic calculations.*

Sheet C501, Site Details

Typical Frost Wall backfill & Drip Edge Detail. The detail specifies a dripline filter trench width of 4 feet; however, the sizing calculations provided in Attachment 18B note that a minimum trench width of 5.5 feet is required. A clarification should be made.

Sheet C502, Erosion Control Details and Notes

Grassed Underdrain Soil Filter Field Detail. Construction details for the proposed emergency spillway should be provided on the drawings. In addition, the dimensions of the riprap apron and the d_{50} riprap size should be clearly specified.

Response: Post Development Drainage: The description for Subarea 9 was added to the written description of the drainage areas. The revised description is included in Attachment 18B

Sheet C501. Site Details: Sheet C501, specifically the Typical Frost Wall Backfill and Drip Edge Detail was updated to reflect a filter trench width of 5.5 feet to be consistent with calculations found in Attachment 18B.

Sheet C502, Erosion Control Details and Notes: The Grassed Underdrained Soil Filter Emergency Spillway Detail was added to Sheet C501. The Grassed Underdrained Soil Filter Elevations tables on Sheet C502 were updated to include the emergency spill way elevations.

Attachment 23, Operations and Maintenance Manual

Comment:

1. *B., General Operations. The process description should be updated to be consistent with the updated process diagram submitted on December 8, 2015. All of the process components should be clearly described. This section and Attachment 13 should be updated accordingly. Revisions to the Operations and Maintenance Manual (Manual) could be made a condition of the Solid Waste License.*

Response:

1. B., General Operations: The O&M process description is consistent with the process diagram submitted on December 8, 2015. As suggested, Fiberight is willing to accept, as a condition to their license, a requirement to make revisions to the O&M Manual.

Comment:

2. *B.9., Routine Maintenance and General Cleanliness. A site-specific inspection and maintenance plan (Plan) will need to be established for the inspection and maintenance of the proposed processing facility infrastructure. Provisions for tracking maintenance needed and corrective actions performed should be included. A floor drain inspection and maintenance plan was provided as Deliverable #16. Applicable sizing calculations for the leachate trenches, common pit and common drainage tank should be provided. The common pit and drainage tank should be clearly illustrated on the General Arrangement Process Diagram. The Plan including Deliverable #16 should be appended to the facility Manual. In addition, the sample BMP Inspection Log and corresponding procedures should be appended to the Manual.*

Response:

2. B.9., Routine Maintenance and General Cleanliness: The attached O&M has been revised to include procedures for inspection and maintenance once the proposed facility begins operation.

   The preliminary specification and layout of the leachate trenches, common pit, and common drainage tanks was established as per good engineering practice and anticipated facility operations. The trench system as designed will have the capacity to handle over 500 gpm of leachate and wash down water, which exceeds projected leachate and water usage estimates. The trench system as described in Deliverable #16 is designed to allow for ease of periodic inspection and cleaning.

Comment:

3. *F. Odor Control. The Odor Management, Complaint, and Response Plan provided as Deliverable #19 should be appended to this section of the Manual. We have the following additional comments regarding this plan:*

   a. *Section 2.0 should be updated to specify procedures that will be implemented to minimize the potential for odor from waste hauling vehicles as they enter the facility property and are waiting to off-load. For example, if waste hauling vehicles arrive containing certain waste streams that exhibit a higher degree of odor they should be given higher priority for delivery and off-loading rather than having to idle in line. We discussed this approach with CES, MRC and Fiberight during our October 2015 meeting.*

   b. *Section 4.0 should discuss provisions for odor minimization during timeframes when an odor control scrubber may be offline due to routine maintenance activities.*

   c. *Section 5.3 should provide an anticipated timeframe for procuring the specified odor neutralizing agents. MRC and Fiberight need to provide assurance that neutralizing agents as well as critical back-up equipment can be obtained in a timely manner.*

Response:

3. F., Odor Control

   a. The Odor Management, Complaint, and Response Plan has been updated to included methods by which the operator will minimize the time that odorous waste deliveries remain in the que for entrance to the tip floor and added to the O&M which is included as Attachment 23.

b. The Odor Management, Complaint, and Response Plan has been updated to included methods to minimize potential nuisance odors during timeframes when the odor scrubber system is inoperable or operating at a limited capacity. This description has been included in Attachment 23.

c. The Odor Management, Complaint, and Response Plan has been updated to specify odor neutralizing agents will be stored on-site in sufficient quantities to address localized odor issues (i.e. single truck or localized leaking leachate from trucks).

Deliverable #11

Comment: *It is our understanding that additional upgrades to the natural gas pipeline between Hampden and Bangor will need to be completed prior to facility operations. Once upgrades are completed, verification should be provided to the Department.*

Response: The Department will be notified when the upgrades to the natural gas pipeline are completed.

Deliverable #13

Comment: *As a reminder, an updated process mass balance table detailing all inputs and outputs including flow still needs to be submitted.*

Response: The updated mass balance detailing inputs and outputs of each process step and a table summarizing the recovery and disposal rates of each process output is included in Attachment 25.

General

Comment:

1. *Construction-ready drawings and technical specifications for the project will need to be prepared and submitted to the Department for review and approval at some point prior to construction activities.*

Response:

1. When construction drawings and specifications are available, they will be provided to the MDEP.

Comment:

2. *Record drawings illustrating infrastructure layout, stormwater management structures and other applicable features should be provided to the Department at the conclusion of construction activities.*

Response:

2. Record drawings will be available following the completion of construction activities.

ATTACHMENT 7

FINANCIAL ABILITY

COVANTA
Powering Today. Protecting Tomorrow.

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December 18, 2015

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17 State House Station
Augusta, ME 04333-0017

RE: Fiberight LCC – Financial Capacity Letter

Dear Sir/Madam,

Covanta Energy, LLC is writing this letter in support of Fiberight LLC's proposed advanced waste processing facility to be located in Hampden, ME (the "Project").

Covanta Energy, LLC is engaged with Fiberight to support the development, financing, construction and operation of the Project, leveraging our 30+ years experiencing converting municipal solid waste into clean renewable energy, recycling metals and other commodities, and helping communities meet their goals for environmental stewardship and sustainability. Since the summer, we have been working with Fiberight's management and technical team and we visited their Lawrenceville, VA demonstration plant as part of our diligence efforts. Covanta conducted a review of financial projections related to the Project and we executed a term sheet for a long-term strategic partnership with Fiberight which starts with the Project.

We have reviewed the proposed budget for the project (attached hereto), totaling approximately $67 million, and we can confirm that we are interested in supporting Fiberight with project finance in the form of an equity investment in the Project.

This letter is not intended to be a binding commitment to provide financing. A binding financing commitment is subject to successful completion of due diligence activities, including, but not limited to, the Project receiving relevant waste permits from Maine DEP, and Fiberight entering into an acceptable waste supply agreement with MRC Maine and its charter communities which, as we understand, is very close to completion.

Sincerely,

Steven B. Weber, P.E.
Vice President, Business Development

Attachment
Cc: M. Mulcahy
S. Tralins
M. De Castro

Preliminary Capital Budget – Hampden, ME

Project Directs	
Site development	$2,155,832
Foundations & Concrete	$1,553,692
Building Construction	$3,309,057
Total Real Estate	**$7,018,582**
MRF	$3,933,415
Pulping System	$2,196,771
Recyclables Separation/Transfer	$406,587
Wash System	$3,436,048
Pre-Treatment System	$880,095
Hydrolysis	$8,585,758
A/D feed Prep	$514,614
Anaerobic Digestion System	$5,672,203
Energy Systems	$7,898,055
Cleaning In place	$240,943
Emissions & Odor Control System	$848,583
Digester Gas Clean-up & Compression	$3,411,222
Utilities	$504,428
Valves & Piping (Balance of Plant)	$3,392,915
Total Machinery & Equipment	**$41,921,635**
Steel, Mechanical & Electrical Installation	$15,181,416
Total Installation	**$15,181,416**
Total Project Directs	**$64,121,633**
Engineering, Permits & Project Management	**$2,855,153**
Fees & Working Capital	$0
Total Project Indirects	**$2,855,153**
Total Project Cost estimate	**$66,976,786**

COVANTA

Powering Today. Protecting Tomorrow.

Covanta Holding Corporation Reports 2015 Fourth Quarter And Full Year Results And Provides 2016 Guidance

Company Release - 02/16/2016 16:15

MORRISTOWN, N.J., Feb. 16, 2016 /PRNewswire/ -- Covanta Holding Corporation (NYSE: CVA) ("Covanta" or the "Company"), a world leader in sustainable waste and energy solutions, reported financial results today for the three and twelve months ended December 31, 2015.

	FY 2014	FY 2015
	(Unaudited, $ in millions, except per share amounts)	
Revenue	$ 1,682	$ 1,645
Net (Loss) Income	$ (2)	$ 68
Adjusted EBITDA	$ 474	$ 428
Free Cash Flow	$ 240	$ 147
Adjusted EPS	$ 0.39	$ 0.07

Highlights and Accomplishments:

- Completed 5 additional strategic acquisitions to expand Environmental Solutions business
- Commenced NYC MTS contract operations
- Established regional metals processing facility in Fairless Hills, PA
- Durham-York moved into commercial operations in January 2016
- Dublin project construction over 50% complete – on track for late 2017 operations
- Continuous Improvement initiatives underway utilizing Lean Six Sigma methodologies
- Repurchased $50 million of stock Q4 2015 through January 2016

"We've taken several important steps forward since our last earnings call: we moved the Durham-York EfW project into commercial operations, made continued progress on a number of fronts in our strategic plan, and took advantage of the volatile market conditions to repurchase $50 million of stock," said Stephen J. Jones, Covanta's CEO. "Our Dublin facility is now more than halfway through construction and, operationally, our core EfW business is running very well. While we face continued weakness in the commodities markets, our long-term outlook for growing Free Cash Flow remains strong."

Full Year 2015

For the twelve months ended December 31, 2015, total revenue decreased by $37 million to $1.65 billion from $1.68 billion in 2014. Decreases in energy, recycled metals and construction revenue were partially offset by new waste and service revenue.

Same store North America EfW revenue decreased by $47 million as follows:

- waste and service revenue increased by $13 million;
- energy revenue decreased by $25 million, primarily driven by lower energy pricing; and
- recycled metals revenue decreased by $35 million, driven by a decline in recycled metal market pricing.

Also within North America EfW revenue, contract transitions, including lower debt service revenue, resulted in a decrease of $14 million. Transactions, primarily related to the Pinellas EfW operating contract, increased revenue by $7 million.

All other revenue (non-EfW operations) increased by $16 million on a consolidated basis. Waste and service revenue from non-EfW operations increased by $80 million, primarily due to the start-up of the New York City MTS contract and contribution from newly acquired environmental services businesses, while energy revenue from non-EfW operations decreased by $28 million, driven primarily by economically dispatching a biomass facility and lower market pricing. Other operating revenue decreased by $38 million, primarily due to lower construction revenue.

Excluding net write-offs [1], operating expense increased by $28 million to $1.5 billion. The year-over-year increase was primarily due to:

- a $41 million increase in North America EfW plant operating expense due primarily to additional expense of $31 million related to the adoption of the service concession arrangement accounting guidance, as well as an $8 million increase due to contract transitions and a $7 million increase due to transactions partially offset by a $6 million decrease in same store plant operating expense;
- a $33 million increase in North America segment non-EfW plant operating expense, primarily related to newly acquired Environmental Solutions businesses, the start-up of the New York City MTS contract and additional costs related to transfer stations, partially offset by lower incentive compensation and economically dispatching a biomass facility;
- a $28 million decrease in other operating expense incurred due to lower construction expense and the sale of our insurance business at the end of 2014; and
- a $17 million decrease related to depreciation and amortization expense and general and administrative expense.

Excluding net write-offs [1], operating income decreased by $65 million to $143 million in 2015 due to the revenue and expense items noted above.

Adjusted EBITDA declined by $46 million on a year-over-year basis to $428 million due to the decline in the commodities markets, start-up and construction expense associated with the Durham York facility and contract transitions, partially offset by a lower incentive accrual and the benefits from the ramp of the New York City MTS contract and Environmental Solutions acquisitions.

Free Cash Flow declined by $93 million to $147 million, primarily as a result of lower Adjusted EBITDA, higher maintenance capital expenditures, and net cash outflow for working capital.

Adjusted EPS decreased by $0.32 to $0.07. The decrease was driven primarily by lower operating income.

Shareholder Returns

In 2015, the Company paid its cash dividend of $1.00 per share on annualized basis and repurchased $32 million [2] of stock in the fourth quarter.

Fourth Quarter Results

For the three months ended December 31, 2015 compared to the same period last year:

- Total revenue decreased $3 million to $432 million;
- Adjusted EBITDA decreased $4 million to $127 million;
- Free Cash Flow increased $10 million to $64 million; and
- Adjusted EPS decreased by $0.03 to $0.03.

2016 Guidance
The Company is establishing guidance for 2016 for the following key metrics:

(In millions)

Metric	2015 Actual	2016 Guidance Range
Adjusted EBITDA	$ 428	$ 390 - $ 430
Free Cash Flow	$ 147	$ 140 - $ 180

Conference Call Information
Covanta will host a conference call at 8:30 AM (Eastern) on Wednesday, February 17, 2016 to discuss its fourth quarter and full year results. The conference call will begin with prepared remarks, which will be followed by a question and answer session. To participate, please dial 1-800-860-2442 approximately 10 minutes prior to the scheduled start of the call. If calling from Canada, please dial 1-866-605-3852. If calling outside of the United States and Canada, please dial 1-412-858-4600. Please request the "Covanta Holding Corporation call" when prompted by the conference call operator. The conference call will also be webcast live from the Investor Relations section of the Company's website. A presentation will be made available during the call and will be found on the Investor Relations section of the Covanta website at www.covanta.com.

A replay will be available one hour after the end of the conference call through 9:00 AM (Eastern) February 24, 2016. To access the replay, please dial 1-877-344-7529, or from outside of the United States 1-412-317-0088 and use the replay conference ID number 10079278. The webcast will also be archived on www.covanta.com.

About Covanta
Covanta is a world leader in providing sustainable waste and energy solutions. Annually, Covanta's modern Energy-from-Waste facilities safely convert approximately 20 million tons of waste from municipalities and businesses into clean, renewable electricity to power one million homes and recycle approximately 500,000 tons of metal. Through a vast network of treatment and recycling facilities, Covanta also provides comprehensive industrial material management services to companies seeking solutions to some of today's most complex environmental challenges. For more information, visit covanta.com.

Cautionary Note Regarding Forward-Looking Statements
Certain statements in this press release may constitute "forward-looking" statements as defined in Section 27A of the Securities Act of 1933 (the "Securities Act"), Section 21E of the Securities Exchange Act of 1934 (the "Exchange Act"), the Private Securities Litigation Reform Act of 1995 (the "PSLRA") or in releases made by the Securities and Exchange Commission ("SEC"), all as may be amended from time to time. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of Covanta Holding Corporation and its subsidiaries ("Covanta") or industry results, to differ materially from any future results, performance or achievements expressed or implied by such forward-looking statements. Statements that are not historical fact are forward-looking statements. For additional information see the Cautionary Note Regarding Forward-Looking Statements at the end of the Exhibits.

(1) 2015 and 2014 include net write-offs of $43 million and $64 million, respectively.
(2) Approximately $2 million of common stock repurchased during 2015 was settled and paid in January 2016.

Exhibit 1

Covanta Holding Corporation

Consolidated Statements of Operations

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2015	2014	2015	2014
	(Unaudited) (In millions, except per share amounts)			
Operating revenue				
Waste and service revenue	$ 299	$ 272	$ 1,104	$ 1,032
Recycled metals revenue	12	21	81	93
Energy revenue	102	110	421	460
Other operating revenue	19	32	59	97
Total operating revenue	432	435	1,645	1,682
Operating expense				
Plant operating expense	280	257	1,129	1,055
Other operating expense	18	35	73	101
General and administrative expense	22	24	93	97
Depreciation and amortization expense	50	54	198	211
Net interest (income) expense on project debt	(1)	2	9	10
Net write-offs (a)	19	—	43	64
Total operating expense	388	372	1,545	1,538
Operating income	**44**	**63**	**100**	**144**
Other income (expense)				
Investment income	—	1	—	1
Interest expense	(33)	(33)	(125)	(125)
Non-cash convertible debt related expense	—	—	—	(13)
Loss on extinguishment of debt	—	—	(2)	(2)
Other income, net	—	(1)	(1)	(1)
Total other expense	(33)	(33)	(128)	(140)

Income (loss) before income tax benefit (expense) and equity in net income from unconsolidated investments	11	30	(28)	4
Income tax benefit (expense)	65	(39)	84	(15)
Equity in net income from unconsolidated investments	2	5	13	10
Net Income (Loss)	78	(4)	69	(1)
Noncontrolling interests:				
Less: Net income attributable to noncontrolling interests in subsidiaries	1	1	1	1
Net Income (Loss) Attributable to Covanta Holding Corporation	$ 77	$ (5)	$ 68	$ (2)
Weighted Average Common Shares Outstanding:				
Basic	131	131	132	130
Diluted	133	131	133	130
Earnings (Loss) Per Share:				
Basic	$ 0.59	$ (0.04)	$ 0.52	$ (0.01)
Diluted	$ 0.58	$ (0.04)	$ 0.51	$ (0.01)
Cash Dividend Declared Per Share:	$ 0.25	$ 0.25	$ 1.00	$ 0.88

(a) For additional information, see Exhibit 4 - Note (a) of this Press Release

Exhibit 2

Covanta Holding Corporation

Consolidated Balance Sheets

	As of December 31,	
	2015	2014
	(Unaudited)	
	(In millions, except per share amounts)	
ASSETS		
Current:		
Cash and cash equivalents	$ 94	$ 84
Restricted funds held in trust	77	105
Receivables (less allowances of $7 and $6, respectively)	312	299
Deferred income taxes	---	29
Prepaid expense and other current assets	122	102
Assets held for sale	97	96
Total Current Assets	702	715
Property, plant and equipment, net	2,690	2,607
Restricted funds held in trust	81	91
Waste, service and energy contract intangibles, net	284	314
Other intangible assets, net	38	17
Goodwill	301	274
Investments in investees and joint ventures	10	12
Other assets	153	176
Total Assets	$ 4,259	$ 4,206
LIABILITIES AND EQUITY		
Current:		
Current portion of long-term debt	$ 8	$ 5
Current portion of project debt	16	35
Accounts payable	90	33
Accrued expense and other current liabilities	234	306
Liabilities held for sale	23	26
Total Current Liabilities	371	405
Long-term debt	2,277	1,968
Project debt	185	190

Deferred income taxes	595	743
Waste, service and other contract intangibles, net	13	19
Other liabilities	178	97
Total Liabilities	3,619	3,422
Equity:		
Covanta Holding Corporation stockholders' equity:		
Preferred stock ($0.10 par value; authorized 10 shares; none issued and outstanding)	—	—
Common stock ($0.10 per value; authorized 250 shares; issued 136 shares; outstanding 131 and 133 shares, respectively)	14	14
Additional paid-in capital	801	805
Accumulated other comprehensive loss	(34)	(22)
Accumulated deficit	(143)	(15)
Treasury stock, at par	—	—
Total Covanta Holding Corporation stockholders equity	638	782
Noncontrolling interests in subsidiaries	2	2
Total Equity	640	784
Total Liabilities and Equity	$ 4,259	$ 4,206

Exhibit 3

Covanta Holding Corporation

Consolidated Statements of Cash Flow

	Twelve Months Ended December 31,	
	2015	**2014**
	(Unaudited)	
OPERATING ACTIVITIES:		
Net income (loss)	$ 69	$ (1)
Adjustments to reconcile net income (loss) to net cash provided by operating activities from continuing operations:		
Depreciation and amortization expense	198	211
Net write-offs [a]	43	64
Loss on extinguishment of debt	2	2
Non-cash convertible debt related expense	—	13
Stock-based compensation expense	18	17
Deferred income taxes	(11)	4
IRS audit settlement	(93)	—
Other, net	17	14
Change in restricted funds held in trust	28	11
Change in working capital, net of effects of acquisitions	(22)	5
Net cash provided by operating activities from continuing operations	249	340
Net cash provided by operating activities of discontinued operations	—	1
Net cash provided by operating activities	249	341
INVESTING ACTIVITIES:		
Purchase of property, plant and equipment	(376)	(216)
Acquisition of business, net of cash acquired	(72)	(13)
Acquisition of noncontrolling interest in subsidiary	—	(12)
Proceeds from the sale of available-for-sale marketable securities	—	11
Property insurance proceeds	1	2
Other, net	(1)	(4)
Net cash used in investing activities from continuing operations	(448)	(232)
Net cash provided by investing activities of discontinued operations	—	3
Net cash used in investing activities	(448)	(229)
FINANCING ACTIVITIES:		
Proceeds from borrowings on long-term debt	294	412
Proceeds from borrowings on revolving credit facility	895	531
Proceeds from equipment financing capital lease	15	63

Proceeds from borrowings on project debt	59	63
Proceeds from borrowings on Dublin Convertible Preferred	86	—
Payments related to Cash Conversion Option	—	(83)
Proceeds from settlement of Note Hedge	—	83
Principal payments on long-term debt	(196)	(557)
Payments of borrowings on revolving credit facility	(692)	(496)
Payment of equipment financing capital lease	(4)	(1)
Principal payments on project debt	(85)	(52)
Change in restricted funds held in trust	5	(43)
Payment of deferred financing costs	(11)	(36)
Cash dividends paid to stockholders	(133)	(101)
Common stock repurchased	(30)	—
Other, net	5	7
Net cash provided by (used in) financing activities from continuing operations	208	(210)
Net cash used in financing activities of discontinued operations	—	(6)
Net cash provided by (used in) financing activities	208	(216)
Effect of exchange rate changes on cash and cash equivalents	(4)	(5)
Net increase (decrease) in cash and cash equivalents	5	(109)
Cash and cash equivalents at beginning of period	91	200
Cash and cash equivalents at end of period	96	91
Less: Cash and cash equivalents of discontinued operations at end of period	2	7
Cash and cash equivalents of continuing operations at end of period	$ 94	$ 84

(e) For additional information, see Exhibit 4 - Note (a) of this Press Release.

Covanta Holding Corporation **Exhibit 4**

Reconciliation of Net Income (Loss) to Adjusted EBITDA

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2015	2014	2015	2014
	(Unaudited, In millions)			
Net income (Loss) Attributable to Covanta Holding Corporation	$ 77	$ (5)	$ 68	$ (2)
Operating loss related to insurance subsidiaries	—	1	—	2
Depreciation and amortization expense	50	54	198	211
Debt service:				
Net interest (income) expense on project debt	(1)	2	9	10
Interest expense	33	33	125	125
Non-cash convertible debt related expense	—	—	—	13
Investment income	—	(1)	—	(1)
Subtotal debt service	32	34	134	147
Income tax (benefit) expense	(65)	39	(84)	15
Net write-offs [a]	19	—	43	64
Loss on extinguishment of debt	—	—	2	2
Net income attributable to noncontrolling interests in subsidiaries	1	1	1	1
Other adjustments:				
Debt service billings in excess of revenue recognized	—	1	1	2
Severance and other restructuring [b]	1	3	4	9
Non-cash compensation expense [c]	3	2	18	17
Capital type expenditures at service fee operated facilities [d]	6	—	31	—
Other [e]	3	1	12	6
Subtotal other adjustments	13	7	66	34
Total adjustments	50	136	360	476
Adjusted EBITDA	$ 127	$ 131	$ 428	$ 474

(a) During the three and twelve months ended December 31, 2015, we recorded non-cash impairments of our biomass facility assets of $19 million and $43 million, respectively.

Exhibit 5

Covanta Holding Corporation

Consolidated Reconciliation of Cash Flow Provided by Operating Activities to Adjusted EBITDA

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2015	2014	2015	2014
	(Unaudited, in millions)			
Cash flow provided by operating activities from continuing operations	$ 95	$ 76	$ 249	$ 340
Cash flow used in operating activities from insurance subsidiaries	—	1	—	1
Debt service	32	34	134	147
Change in working capital	6	(3)	22	(4)
Change in restricted funds held in trust	(14)	3	(28)	(11)
Non-cash convertible debt related expense	—	—	—	(13)
Equity in net income from unconsolidated investments	2	5	13	10
Dividends from unconsolidated investments	(2)	(1)	(5)	(11)
Current tax provision	3	18	6	11
Capital type expenditures at service fee operated facilities [a]	6	—	31	—
Other	(1)	(2)	6	4
Sub-total	—	20	45	(14)
Adjusted EBITDA	**$ 127**	**$ 131**	**$ 428**	**$ 474**

(a) For additional information, see Exhibit 4 - Note (d) of this Press Release.

Exhibit 6

Covanta Holding Corporation

Reconciliation of Cash Flow Provided by Operating Activities to Free Cash Flow

	Three Months Ended December 31,		Twelve Months Ended December 31,		Full Year Estimated 2016
	2015	2014	2015	2014	
	(Unaudited, in millions)				
Cash flow provided by operating activities from continuing operations	$ 95	$ 76	$ 249	$ 340	**$245 - $295**
Plus: Cash flow used in operating activities from insurance subsidiaries	—	1	—	1	
Less: Maintenance capital expenditures [a]	(31)	(23)	(102)	(101)	**(105) - (115)**
Free Cash Flow	**$ 64**	**$ 54**	**$ 147**	**$ 240**	**$140 - $180**
Weighted Average Diluted Shares Outstanding	*133*	*131*	*133*	*130*	
Uses of Free Cash Flow					
Investments:					
Growth investments [b]	$ (80)	$ (39)	$ (346)	$ (143)	
Property insurance proceeds	1	2	1	2	
Other investing activities, net [c]	(1)	9	(1)	10	
Total investments	**$ (80)**	**$ (28)**	**$ (346)**	**$ (131)**	
Return of capital to stockholders:					
Cash dividends paid to stockholders	$ (33)	$ (32)	$ (133)	$ (101)	
Common stock repurchased	(30)	—	(30)	—	
Total return of capital to stockholders	**$ (63)**	**$ (32)**	**$ (163)**	**$ (101)**	
Capital raising activities:					
Net proceeds from issuance of corporate debt [d]	$ —	$ —	$ 98	$ 405	
Net proceeds from issuance of project debt [e]	—	—	15	—	
Net proceeds from Dublin Convertible Preferred	—	—	85	—	

Net proceeds from equipment capital leases [f]	—	16	15	63
Net proceeds from the exercise of options for common stock	—	10	—	10
Change in restricted funds held in trust	64	17	—	(3)
Other financing activities, net	5	4	5	(3)
Net proceeds from capital raising activities	**$ 69**	**$ 47**	**$ 218**	**$ 472**
Debt repayments:				
Net cash used for scheduled principal payments on corporate debt	$ —	$ —	$ (1)	$ (462)
Payments related to Cash Conversion Option [g]	—	—	—	(83)
Proceeds from the settlement of Note Hedge [g]	—	—	—	83
Net cash used for scheduled principal payments on project debt [h]	(19)	(2)	(38)	(29)
Payment of equipment capital leases [f]	(1)	(1)	(4)	(1)
Voluntary prepayment of corporate debt	—	—	—	(95)
Deferred financing costs	(2)	—	(7)	(29)
Total debt repayments	**$ (22)**	**$ (3)**	**$ (50)**	**$ (616)**

Covanta Holding Corporation

Reconciliation of Cash Flow Provided by Operating Activities to Free Cash Flow (continued)

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2015	2014	2015	2014
Borrowing activities - Revolving credit facility, net	**$ 57**	**$ (35)**	**$ 203**	**$ 35**
Effect of exchange rate changes on cash and cash equivalents	**$ —**	**$ (2)**	**$ (4)**	**$ (5)**
Net change in cash and cash equivalents	**$ 25**	**$ 1**	**$ 5**	**$ (106)**

(a) Purchases of property, plant and equipment are also referred to as capital expenditures. Capital expenditures that primarily maintain existing facilities are classified as maintenance capital expenditures. The following table provides the components of total purchases of property, plant and equipment:

Maintenance capital expenditures	$ (31)	$ (23)	$ (102)	$ (101)
Capital expenditures associated with organic growth initiatives	(7)	(8)	(34)	(25)
Capital expenditures associated with the New York City MTS contract	(2)	(14)	(30)	(59)
Capital expenditures associated with Essex County EfW emissions control system	(8)	(5)	(26)	(17)
Capital expenditures associated with construction of Dublin EfW facility	(61)	(14)	(184)	(14)
Total capital expenditures associated with growth investments	(78)	(41)	(274)	(115)
Total purchases of property, plant and equipment	$ (109)	$ (64)	$ (376)	$ (216)

(b) Growth investments include investments in growth opportunities, including organic growth initiatives, technology, business development, and other similar expenditures.

Capital expenditures associated with organic growth investments	$ (78)	$ (41)	$ (274)	$ (115)
Investments in connection with the Dublin EfW facility, net of capital expenditures	—	2	—	(14)
Other organic growth investments	—	—	—	(1)
Acquisition of business, net of cash acquired	(2)	—	(72)	(13)
Total growth investments	$ (80)	$ (39)	$ (346)	$ (143)

(c) For the twelve months ended December 31, 2014, Other investing activities, net includes net payments from the purchase/sale of investment securities.

(d) Excludes borrowings under Revolving Credit Facility. Calculated as follows:

Proceeds from borrowings on long-term debt	$ —	$ —	$ 294	$ 412
Refinanced long-term debt	—	—	(195)	—
Less: Financing costs related to issuance of long-term debt	—	—	(1)	(7)
Net proceeds from issuance of corporate debt	$ —	$ —	$ 98	$ 405

(e) Calculated as follows:

Proceeds from borrowings on project debt	$ —	$ —	$ 59	$ 63
Refinanced project debt	—	—	(42)	—
Less: Funding into escrow	—	—	—	(63)
Less: Financing cost related to the issuance of project debt	—	—	(2)	—
Net proceeds from issuance of corporate debt	$ —	$ —	$ 15	$ —

Covanta Holding Corporation

Reconciliation of Cash Flow Provided by Operating Activities to Free Cash Flow (continued)

(f) During 2015 and 2014, we financed $15 million and $63 million for equipment related to our New York City contract.

(g) The $460 million of 3.25% Cash Convertible Senior Notes matured on June 1, 2014. Upon maturity, we were required to pay $83 million to satisfy the obligation under the Cash Conversion Option in addition to the principal amount of the 3.25% Notes. We cash-settled the Note Hedge for $83 million effectively offsetting our liability under the Cash Conversion Option.

(h) Calculated as follows:

Total scheduled principal payments on project debt	$ (22)	$ (19)	$ (43)	$ (52)
Decrease in related restricted funds held in trust	3	17	5	23
Net cash used for principal payments on project debt	$ (19)	$ (2)	$ (38)	$ (29)

Covanta Holding Corporation **Exhibit 7**

Reconciliation of Diluted Earnings (Loss) Per Share to Adjusted EPS

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2015	2014	2015	2014
	(Unaudited)			
Continuing Operations - Diluted Income (Loss) Per Share	$ 0.58	$ (0.04)	$ 0.51	$ (0.01)
Reconciling Items [a]	(0.55)	0.10	(0.44)	0.40
Adjusted EPS	$ 0.03	$ 0.06	$ 0.07	$ 0.39

(a) For details related to the Reconciling Items, see Exhibit 7A of this Press Release

Covanta Holding Corporation **Exhibit 7A**

Reconciling Items

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2015	2014	2015	2014
	(Unaudited) (In millions, except per share amounts)			
Reconciling Items				
Operating loss related to insurance subsidiaries	$ —	$ 1	$ —	$ 2
Net write-offs [a]	19	—	43	64
Severance and other restructuring [b]	—	3	7	9
Loss on extinguishment of debt	—	—	2	2
Gain on derivative instruments not designated as hedging instruments	(3)	—	(6)	—
Effect of foreign exchange loss on indebtedness	1	1	3	1
Other	1	—	1	1
Total Reconciling Items, pre-tax	18	5	50	79
Proforma income tax impact	(2)	2	(20)	(32)
Impact of IRS audit settlement [c]	(93)	—	(93)	—
Tax liability related to expected gain on sale of China assets	4	—	4	—
ARC purchase accounting adjustment tax impact	—	4	—	4

Grantor trust activity	(1)	1	—	1
Total Reconciling Items, net of tax	**$ (74)**	**$ 12**	**$ (59)**	**$ 52**
Diluted EPS Impact from Reconciling Items	**$ (0.55)**	**$ 0.10**	**$ (0.44)**	**$ 0.40**
Weighted Average Diluted Shares Outstanding	133	131	133	130

(a) For additional information, see Exhibit 4 - Note (a) of this Press Release.

(b) The twelve months ended December 31, 2015 includes $6 million of costs incurred in connection with separation agreements related to the departure of two executive officers, of which $4 million relates to non-cash compensation.

(c) Amount attributable to the resolution of an IRS audit in the fourth quarter of 2015.

Exhibit 6

Covanta Holding Corporation

Supplemental Information on Operations [a]

(Unaudited, $ in millions)

	Twelve Months Ended December 31, 2015				
	North America				
	EfW	Other	Total	Other	Consolidated
Revenue:					
Waste and service:					
Waste processing & handling	$ 929	$ 102	$ 1,031	$ 1	$ 1,032
Debt service	14	—	14	—	14
Other revenue	10	47	57	1	58
Total waste and service revenue	953	149	1,102	2	1,104
Recycled metals:					
Ferrous	32	6	38	—	38
Non-ferrous	23	—	23	—	23
Total recycled metals revenue	55	6	61	—	61
Energy:					
Energy sales	307	31	338	36	374
Capacity	38	8	46	—	46
Other revenue	1	—	1	—	1
Total energy revenue	346	39	385	36	421
Other revenue	—	59	59	—	59
Total revenue	**$ 1,354**	**$ 253**	**$ 1,607**	**$ 38**	**$ 1,645**
Operating expense:					
Plant operating expense:					
Plant maintenance	256	13	269	1	270
Other plant operating expense	612	216	828	31	859
Total plant operating expense	868	229	1,097	32	1,129
Other operating expense	—	74	74	(1)	73
General and administrative	—	88	88	5	93
Depreciation and amortization	168	29	197	1	198
Net interest expense on project debt	7	—	7	2	9
Net write-offs	—	43	43	—	43
Total operating expense	**$ 1,043**	**$ 463**	**$ 1,506**	**$ 39**	**$ 1,545**
Operating income (loss)	**$ 311**	**$ (210)**	**$ 101**	**$ (1)**	**$ 100**
Operating income (loss) excluding net write-offs:	**$ 311**	**$ (167)**	**$ 144**	**$ (1)**	**$ 143**

(a) Supplemental information provided in order to present the financial performance of our North America EfW operations. "Other" within our North America segment includes all non-EfW operations, including transfer stations, landfills, e-waste, biomass facilities, construction and corporate overhead. This information is provided as supplemental detail only and is not intended to replace our North America reporting segment.

Note: Certain amounts may not total due to rounding.

Exhibit 8A

Covanta Holding Corporation

Supplemental Information on Operations [a]

(Unaudited, $ in millions)

	Twelve Months Ended December 31, 2014				
	North America				
	EfW	Other	Total	Other	Consolidated
Revenue:					
Waste and service:					
Waste processing & handling	$ 933	$ 56	$ 989	$ 1	$ 990
Debt service	21	—	21	—	21
Other revenue	7	13	20	1	21
Total waste and service revenue	961	69	1,030	2	1,032
Recycled metals:					
Ferrous	61	4	65	—	65
Non-ferrous	28	—	28	—	28
Total recycled metals revenue	89	4	93	—	93
Energy:					
Energy sales	325	52	377	37	414
Capacity	32	14	46	—	46
Total energy revenue	357	66	423	37	460
Other revenue	—	95	95	2	97
Total revenue	**$ 1,407**	**$ 234**	**$ 1,641**	**$ 41**	**$ 1,682**
Operating expense:					
Plant operating expense:					
Plant maintenance	227	17	244	1	245
Other plant operating expense	600	179	779	31	810
Total plant operating expense	827	196	1,023	32	1,055
Other operating (income) expense	(1)	99	98	3	101
General and administrative	—	94	94	3	97
Depreciation and amortization	185	23	208	3	211
Net interest expense on project debt	9	—	9	1	10
Net write-offs	9	41	50	14	64
Total operating expense	**$ 1,029**	**$ 453**	**$ 1,482**	**$ 56**	**$ 1,538**
Operating income (loss)	**$ 378**	**$ (219)**	**$ 159**	**$ (15)**	**$ 144**
Operating income (loss) excluding net write-offs:	**$ 387**	**$ (178)**	**$ 209**	**$ (1)**	**$ 208**

(a) Supplemental information provided in order to present the financial performance of our North America EfW operations. "Other" within our North America segment includes all non-EfW operations, including transfer stations, landfills, e-waste, biomass facilities, construction and corporate overhead. This information is provided as supplemental detail only and is not intended to replace our North America reporting segment.

Note: Certain amounts may not total due to rounding.

Exhibit 9

North America EfW

Revenue and Operating Income Changes - FY2014 to FY2015

(Unaudited, $ in millions)

		Same Store						Contract Transitions				
	FY2014	Price	%	Volume	%	Total	%	Waste	PPA	Transactions	Other [a]	FY2015
Waste and service:												

Waste processing	$ 933	$ 11	1.1 %	$ 1	0.1 %	$ 11	1.2 %	$ (18)	$ —	$ 3	$ —	$ 929
Debt service	21					—		(8)	—	—	—	14
Other revenue	7					2		1	—	—	—	10
Total waste and service revenue	961					13	1.4 %	(26)	—	3	—	953
Recycled metals:												
Ferrous	61	(30)	-49.7 %	1	1.2 %	(30)	-48.4 %	—	—	—	—	32
Non-ferrous	28	(7)	-25.7 %	2	6.1 %	(5)	-19.5 %	—	—	—	—	23
Total recycled metals revenue	89	(38)	-42.2 %	2	2.8 %	(35)	-39.4 %	—	—	1	—	55
Energy:												
Energy sales	325	(21)	-6.5 %	(4)	-1.1 %	(25)	-7.6 %	10	(1)	(1)	—	307
Capacity	32					(1)	-2.3 %	2	1	4	—	38
Other revenue	—					—		—	—	—	—	1
Total energy revenue	357					(25)	-7.1 %	12	—	3	—	346
Other revenue	—					—	-1.4 %	—	—	—	—	—
Total revenue	**1,407**					(47)	-3.3 %	(13)	(1)	7	—	**1,354**
Operating expense:												
Plant operating expense:												
Plant maintenance	$ 227					$ (9)	-3.9 %	$ —	$ —	$ 6	$ 31	$ 256
Other plant operating expense	600					3	0.5 %	8	—	1	—	612
Total plant operating expense	827					(6)	-0.7 %	8	—	7	31	868
Other operating expense	(1)					1		—	—	—	—	—
General and administrative	—					—		—	—	—	—	—
Depreciation and amortization	185					6		—	—	(1)	(22)	168
Net interest expense on project debt	9					(2)		—	—	—	—	7
Total operating expense	**1,020**					(1)		8	—	6	10	1,043
Operating income (loss)	**$ 387**					**$ (46)**		**$ (21)**	**$ (1)**	**$ 1**	**$ (10)**	**$ 311**

(a) Impact of adoption of new accounting standard. For additional information, see Exhibit 4 - Note (d) of this Press Release.

Note: Excludes Net write-offs.

Note: Certain amounts may not total due to rounding.

North America EfW **Exhibit 10**

Operating Metrics (Unaudited) - Summary of 2014 and 2015 by Quarter

	Three Months Ended				Twelve Months Ended	Three Months Ended				Twelve Months Ended
	Mar 31, 2014	Jun 30, 2014	Sep 30, 2014	Dec 31, 2014	Dec 31, 2014	Mar 31, 2015	Jun 30, 2015	Sep 30, 2015	Dec 31, 2015	Dec 31, 2015
EfW Waste										

Tons: (in millions)										
Contracted	3.6	4.1	4.2	4.1	**16.0**	3.9	4.4	4.4	4.5	**17.2**
Uncontracted	0.8	0.7	0.6	0.6	**2.7**	0.7	0.5	0.5	0.5	**2.2**
Total tons	4.4	4.8	4.8	4.7	18.7	4.6	4.9	4.9	5.0	**19.4**
Revenue per ton:										
Contracted	$49.88	$48.39	$45.84	$50.67	**$48.65**	$46.65	$44.72	$44.57	$46.56	**$45.60**
Uncontracted	$51.08	$59.17	$59.52	$60.44	**$57.22**	$56.20	$70.10	$69.21	$69.29	**$65.26**
Average revenue per ton	$50.09	$49.89	$47.61	$51.96	**$49.87**	$48.11	$47.29	$47.01	$48.91	**$47.83**
EfW Energy										
Energy sales: (MWh in millions)										
Contracted	0.7	0.8	0.8	0.8	**3.2**	0.7	0.8	0.8	0.8	**3.0**
Hedged	0.3	0.3	0.3	0.4	**1.4**	0.4	0.3	0.3	0.3	**1.4**
Market	0.2	0.2	0.3	0.3	**1.1**	0.3	0.4	0.4	0.4	**1.4**
Total energy sales	1.3	1.4	1.5	1.5	**5.6**	1.4	1.4	1.5	1.5	**5.8**
Market sales by geography:										
PJM East	0.1	0.1	0.1	**0.1**	**0.4**	—	0.1	0.1	0.2	**0.5**
NEPOOL	0.1	0.1	**0.1**	0.1	**0.3**	0.1	0.1	0.1	0.1	**0.3**
NYISO	—	—	—	—	—	—	—	—	—	**0.1**
Other	0.1	0.1	0.1	0.1	**0.3**	0.1	0.1	0.1	0.1	**0.4**
Revenue per MWh (excludes capacity):										
Contracted	$70.66	$68.07	$64.94	$66.93	**$67.56**	$67.21	$63.69	$63.69	$67.70	**$65.56**
Hedged	$41.57	$43.20	$42.49	$44.14	**$42.87**	$53.20	$42.07	$44.05	$42.75	**$45.64**
Market	$86.29	$43.29	$40.33	$38.61	**$49.12**	$47.12	$31.43	$30.86	$27.07	**$33.18**
Average revenue per MWh	$65.21	$57.77	$54.54	$55.70	**$58.06**	$59.54	$50.81	$50.78	$52.09	**$53.17**
Metals										
Tons Sold: (in thousands)										
Ferrous	77	85	92	87	340	76	85	90	79	330
Non-ferrous	6	8	8	8	30	7	8	9	8	32
Revenue per ton:										
Ferrous	$201	$204	$204	$151	**$190**	$139	$127	$113	$86	**$116**
Non-ferrous	$963	$963	$984	$939	**$962**	$799	$741	$716	$639	**$721**
EfW plant operating expense ($ in millions):										
Plant operating expense - gross	$ 251	$ 228	$ 204	$ 214	**$ 896**	$ 246	$ 248	$ 211	$ 224	**$ 929**
Less: Client pass-through costs	(15)	(15)	(12)	(17)	**(59)**	(12)	(11)	(14)	(16)	**(53)**
Less: REC sales - contra-expense	(2)	(3)	(3)	(2)	**(10)**	(1)	(1)	(3)	(3)	**(8)**
Plant operating expense - reported	$ 233	$ 211	$ 188	$ 195	**$ 827**	$ 233	$ 236	$ 194	$ 205	**$ 868**
Client pass-throughs as % of gross costs	6.1%	6.5%	6.0%	8.0%	**6.6%**	4.9%	4.4%	6.5%	7.3%	**5.7%**

Note: Waste volume includes solid tons only. Metals and energy volume are presented net of client revenue sharing. Steam sales are converted to MWh equivalent at an assumed average rate of 11 klbs of steam / MWh. Uncontracted energy sales include sales under PPAs that are based on market prices.

Note: Certain amounts may not total due to rounding.

Discussion of Non-GAAP Financial Measures

We use a number of different financial measures, both United States generally accepted accounting principles ("GAAP") and non-GAAP, in assessing the overall performance of our business. To supplement our assessment of results prepared in accordance with GAAP, we use the measures of Adjusted EBITDA, Free Cash Flow, and Adjusted EPS, which are non-GAAP measures as defined by the Securities and Exchange Commission. The non-GAAP financial measures of Adjusted EBITDA, Free Cash Flow, and Adjusted EPS as described below, and used in the tables above, are not intended as a substitute or as an alternative to net income, cash flow provided by operating activities or diluted income per share as indicators of our performance or liquidity or any other measures of performance or liquidity derived in accordance with GAAP. In addition, our non-GAAP financial measures may be different from non-GAAP measures used by other companies, limiting their usefulness for comparison purposes.

The presentations of Adjusted EBITDA, Free Cash Flow and Adjusted EPS are intended to enhance the usefulness of our financial information by providing measures which management internally use to assess and evaluate the overall performance of its business and those of possible acquisition candidates, and highlight trends in the overall business.

Adjusted EBITDA

We use Adjusted EBITDA to provide further information that is useful to an understanding of the financial covenants contained in the credit facilities as of December 31, 2015 of our most significant subsidiary, Covanta Energy, through which we conduct our core waste and energy services business, and as additional ways of viewing aspects of its operations that, when viewed with the GAAP results and the accompanying reconciliations to corresponding GAAP financial measures, provide a more complete understanding of our core business. The calculation of Adjusted EBITDA is based on the definition in Covanta Energy's credit facilities as of December 31, 2015, which we have guaranteed. Adjusted EBITDA is defined as earnings before interest, taxes, depreciation and amortization, as adjusted for additional items subtracted from or added to net income. Because our business is substantially comprised of that of Covanta Energy, our financial performance is substantially similar to that of Covanta Energy. For this reason, and in order to avoid use of multiple financial measures which are not all from the same entity, the calculation of Adjusted EBITDA and other financial measures presented herein are ours, measured on a consolidated basis, less the results of operations of our insurance subsidiaries.

Under the credit facilities as of December 31, 2015, Covanta Energy is required to satisfy certain financial covenants, including certain ratios of which Adjusted EBITDA is an important component. Compliance with such financial covenants is expected to be the principal limiting factor which will affect our ability to engage in a broad range of activities in furtherance of our business, including making certain investments, acquiring businesses and incurring additional debt. Covanta Energy was in compliance with these covenants as of December 31, 2015. Failure to comply with such financial covenants could result in a default under these credit facilities, which default would have a material adverse effect on our financial condition and liquidity.

These financial covenants are measured on a trailing four quarter period basis and the material covenants are as follows:

- maximum Covanta Energy leverage ratio of 4.00 to 1.00, which measures Covanta Energy's Consolidated Adjusted Debt (which is the principal amount of its consolidated debt less certain restricted funds dedicated to repayment of project debt principal and construction costs) to its Adjusted EBITDA (which for purposes of calculating the leverage ratio and interest coverage ratio, is adjusted on a pro forma basis for acquisitions and dispositions made during the relevant period); and
- minimum Covanta Energy interest coverage ratio of 3.00 to 1.00, which measures Covanta Energy's Adjusted EBITDA to its consolidated interest expense plus certain interest expense of ours, to the extent paid by Covanta Energy.

In order to provide a meaningful basis for comparison, we are providing information with respect to our Adjusted EBITDA for the three and twelve months ended December 31, 2015 and 2014, reconciled for each such period to net income and cash flow provided by operating activities, which are believed to be the most directly comparable measures under GAAP.

It is anticipated that full year 2016 actual GAAP net income will include the effects of events or circumstances that are not representative or indicative of our ongoing business and that would be excluded from our computation of Adjusted EBITDA. Projected GAAP net income for the full year would require inclusion of the projected impact of these future excluded items, which may include items that are not currently determinable, but may be significant, such as write-off of assets and liabilities, the effect of derivative instruments not designated as hedging instruments, significant gains or losses from the disposition or restructuring of businesses, gains and losses on assets held for sale, transaction-related costs, income and loss on the extinguishment of debt and other significant items that would not be representative of our ongoing business and would be excluded from Adjusted EBITDA under the terms of our credit agreement. Further, GAAP net income will be impacted by changes in tax regulations and our effective tax rates, which do not impact full year 2016 Adjusted EBITDA. Due to the uncertainty of the likelihood, amount and timing of any such items that would be excluded from the calculation of projected GAAP net income to determine Adjusted EBITDA, the Company does not believe that it has the information available to provide a quantitative reconciliation of net income to Adjusted EBITDA for full year 2016.

Free Cash Flow

Free Cash Flow is defined as cash flow provided by operating activities from continuing operations, excluding the cash flow provided by or used in our insurance subsidiaries, less maintenance capital expenditures, which are capital expenditures primarily to maintain our existing facilities. We use the non-GAAP measure of Free Cash Flow as a criterion of liquidity and performance-based components of employee compensation. We use Free Cash Flow as a measure of liquidity to determine amounts we can reinvest in our core businesses, such as amounts available to make acquisitions, invest in construction of new projects, make principal payments on debt, or amounts we can return to our stockholders through dividends and/or stock repurchases.

In order to provide a meaningful basis for comparison, we are providing information with respect to our Free Cash Flow for the three and twelve months ended December 31, 2015 and 2014, reconciled for each such period to cash flow provided by operating activities, which we believe to be the most directly comparable measure under GAAP.

Adjusted EPS

Adjusted EPS excludes certain income and expense items that are not representative of our ongoing business and operations, which are included in the calculation of Diluted Earnings Per Share in accordance with GAAP. The following items are not all-inclusive, but are examples of recurring items in prior comparative and future periods. They would include the results of operations of our insurance subsidiaries, write-off of assets and liabilities, the effect of derivative instruments not designated as hedging instruments, significant gains or losses from the disposition or restructuring of businesses, gains and losses on assets held for sale, transaction-related costs, income and loss on the extinguishment of debt and other significant items that would not be representative of our ongoing business.

We will use the non-GAAP measure of Adjusted EPS to enhance the usefulness of our financial information by providing a measure which management internally uses to assess and evaluate the overall performance and highlight trends in the ongoing business.

In order to provide a meaningful basis for comparison, we are providing information with respect to our Adjusted EPS for the three and twelve months ended December 31, 2015 and 2014, reconciled for each such period to diluted income per share, which is believed to be the most directly comparable measure under GAAP.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this press release constitute "forward-looking" statements as defined in Section 27A of the Securities Act of 1933 (the "Securities Act"), Section 21E of the Securities Exchange Act of 1934 (the "Exchange Act"), the Private Securities Litigation Reform Act of 1995 (the "PSLRA") or in releases made by the Securities and Exchange Commission ("SEC"), all as may be amended from time to time. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of Covanta Holding Corporation and its subsidiaries ("Covanta") or industry results, to differ materially from any future results, performance or achievements expressed or implied by such forward-looking statements. Statements that are not historical fact are forward-looking statements. Forward-looking statements can be identified by, among other things, the use of forward-looking language, such as the words "plan," "believe," "expect," "anticipate," "intend," "estimate," "project," "may," "will," "would," "could," "should," "seeks," or "scheduled to," or other similar words, or the negative of these terms or other variations of these terms or comparable language, or by discussion of strategy or intentions. These cautionary statements are being made pursuant to the Securities Act, the Exchange Act and the PSLRA with the intention of obtaining the benefits of the "safe harbor" provisions of such laws. Covanta cautions investors that any forward-looking statements made by us are not guarantees or indicative of future performance. Important factors, risks and uncertainties that could cause actual results to differ materially from those forward-looking statements include, but are not limited to:

- seasonal or long-term fluctuations in the prices of energy, waste disposal, scrap metal and commodities;
- our ability to renew or replace expiring contracts at comparable pricing and with other acceptable terms;
- adoption of new laws and regulations in the United States and abroad, including energy laws, environmental laws, labor laws and healthcare laws;
- our ability to utilize net operating loss carryforwards;
- failure to maintain historical performance levels at our facilities and our ability to retain the rights to operate facilities we do not own;
- our ability to avoid adverse publicity relating to our business expansion efforts;
- advances in technology;
- difficulties in the operation of our facilities, including fuel supply and energy delivery interruptions, failure to obtain regulatory approvals, equipment failures, labor disputes and work stoppages, and weather interference and catastrophic events;
- difficulties in the financing, development and construction of new projects and expansions, including increased construction costs and delays;
- limits of insurance coverage;
- our ability to avoid defaults under our long-term contracts;
- performance of third parties under our contracts and such third parties' observance of laws and regulations;
- concentration of suppliers and customers;

- geographic concentration of facilities;
- increased competitiveness in the energy and waste industries;
- changes in foreign currency exchange rates;
- limitations imposed by our existing indebtedness and our ability to perform our financial obligations and guarantees and to refinance our existing indebtedness;
- exposure to counterparty credit risk and instability of financial institutions in connection with financing transactions;
- the scalability of our business;
- restrictions in our certificate of incorporation and debt documents regarding strategic alternatives;
- failures of disclosure controls and procedures and internal controls over financial reporting,
- our ability to attract and retain talented people;
- general economic conditions in the United States and abroad, including the availability of credit and debt financing; and
- other risks and uncertainties affecting our businesses described in Item 1A. Risk Factors of Covanta's Annual Report on Form 10-K for the year ended December 31, 2014 and in other filings by Covanta with the SEC.

Although we believe that our plans, intentions and expectations reflected in or suggested by such forward-looking statements are reasonable, actual results could differ materially from a projection or assumption in any of our forward-looking statements. Our future financial condition and results of operations, as well as any forward-looking statements, are subject to change and inherent risks and uncertainties. The forward-looking statements contained in this press release are made only as of the date hereof and we do not have, or undertake, any obligation to update or revise any forward-looking statements whether as a result of new information, subsequent events or otherwise, unless otherwise required by law.

To view the original version on PR Newswire, visit:http://www.prnewswire.com/news-releases/covanta-holding-corporation-reports-2015-fourth-quarter-and-full-year-results-and-provides-2016-guidance-300220945.html

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ATTACHMENT 8

TECHNICAL ABILITY

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1. Corporate Overview

Since its founding in 1983, Covanta has become the world's largest provider of integrated EfW solutions to the public sector. EfW facilities have the annual capacity to turn more than 20 million tons of household and commercial waste into more than 9 million megawatt hours of clean renewable electricity and 9 billion pounds of steam. With 45 EfW operating facilities in North America, we have more experience than any other U.S.-based company in the full-service management, development, permitting, financing, design, construction, startup, commissioning, and operation of solid waste conversion and energy generation facilities.

No other vendor can match the scope and magnitude of Covanta's EfW facility operations experience. Along with an emphasis on optimizing the mechanics and efficiency of operations and maintenance, Covanta has established a management structure that promotes coordination among its operations, engineering and construction management and business management groups. This ongoing process helps to ensure that Covanta's clients receive the resulting benefits of increased efficiency, reliability and environmental performance.

Covanta recognizes that achieving an extraordinary level of performance requires not just the best equipment, but also the best people and processes. From our front-line operators to our senior management, we employ many of the industry's top experts in environmental engineering, process control, and facility maintenance. It is their talent and skill that have allowed us to consistently lead the industry in technological innovations, operational performance, safety and environmental compliance. The construction, project management, design engineering, operations engineering and support staff based at headquarters include long-time, experienced, highly educated professionals in a number of disciplines, including engineering, project management, construction, operations, maintenance, environmental compliance, health and safety, asset management, human resources, management information systems, accounting, finance and legal. A majority of these individuals, especially those in the technical and operating groups, have grown through the Covanta ranks, many having gained over 20 years of hands-on experience implementing and operating Covanta EfW projects.

1.1 Company History

Covanta, formerly Ogden Corporation, began its history as a public utility holding company in 1939. In 1948, the company registered with the Securities and Exchange Commission as an investment company. Ogden Projects, through the activities of its subsidiary Ogden Martin Services, later emerged as a leader in the EfW market. Ogden based its involvement on two developments of the 1970s: rising energy costs and the decreasing availability of landfill space. In 1983, Ogden acquired the North American rights to the Martin GmbH waste stoker technology, the most widely used grate-based combustion technology in the industry.

Ogden Projects completed construction of its first facility in 1986. By 1992, the company had built and operated 21 facilities and had several additional facilities either under construction or awarded. Its 21 facilities had the capacity to process 20,675 TPD of waste. While the company was best known for EfW operations, Ogden offered a full range of waste disposal services, including recycling.

During the early 1990s, Ogden continued to strengthen its position in environmental services. In 1991, the company acquired complete control over ERC Environmental and Energy Services, which became Ogden Environmental and Energy Services. The acquisition of this successful consulting and engineering concern supported the position of Ogden's EfW operations and paved the way for further expansion.

To mark its transformation into a pure-play energy company in 2001, Ogden changed its name to Covanta Energy Corporation, to acknowledge that public/private partnerships are the hallmark of our success. It is important to note that the change of name represents the depth of our technical and operational expertise and showcases the fact that we now operate more types of EfW technologies than any other company worldwide.

In 2006, Covanta acquired American Ref Fuel Holdings Corp., an owner/operator of six large EfW projects concentrated in the Northeastern U.S. for $2B. In 2007, Covanta acquired the operating businesses of EnergyAnswers Corporation, including two of our EfW facilities in Springfield and Pittsfield, MA, and two transfer stations for $61M. In 2009, Covanta acquired Veolia's EfW business in North America for $450M, expanding our operating base by 25%, adding seven EfW facilities, one transfer station, and more than 400 highly qualified employees.

1.2 Company Awards

Covanta is proud and honored to be recognized by local, state, and federal organizations for our dedication to innovation, safe, and sustainable operations and improving the quality of life in the communities we serve.

- Covanta received the Energy Innovator Award from the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy.

- Covanta and its partners in the Fishing for Energy program received the Coastal America Partnership Award, the highest level award for partnership efforts, from the President of the United States.

- Covanta U.S. facilities have consistently been recognized by the American Society of Mechanical Engineers for excellence in plant operations.

- Covanta was recognized by the New Jersey State League of Municipalities with its 2012 Outstanding Corporate Citizen Award for supporting the League's mission.

- Covanta has 40 sites participating in the U.S. Occupational Safety and Health Administration's (OSHA) Voluntary Protection Program (VPP), which is the official recognition of outstanding efforts by employers and employees to achieve exemplary occupational safety and health policies, procedures and practices.

2. Qualifications and Experience

Covanta is an internationally recognized owner and operator of EfW and renewable energy projects and has provided reliable and sustainable municipal solid waste (MSW) management to communities since 1986. We operate more than 40 state-of-the-art facilities that convert everyday trash into clean, renewable energy for communities around the world. Covanta's North American facilities supply electricity for approximately 1 million homes. We consider EfW-generated energy to be renewable because the MSW we use in our process is consistently replenishable, and all of the energy recovered by the EfW process preserves natural resources and avoids secondary impacts from mining and the combustion of those resources.

Covanta's U.S. operations process approximately 65% of the nation's EfW volume and generate, in combination with our other renewable energy facilities, approximately 8% of America's non-hydro renewable electricity. As part of the process, we recover over 400,000 tons of metal annually for recycling that would have otherwise been lost in landfills. Covanta supports recycling and supports programs that enable communities to recycle as much as possible. Studies have shown that communities that have an EfW facility typically enjoy higher recycling rates than the national average.[1] Processing MSW at Energy-from-Waste facilities for energy generation (steam or electricity) offsets, on average, one ton of greenhouse gas (GHG) emissions for every ton of waste processed. This occurs by avoiding energy generated from fossil fuels, methane produced by decomposing trash at landfills (methane is an extremely potent GHG - about 25 times more than carbon dioxide) and recovering metals for recycling.

Covanta also operates several EfW facilities in China and Italy.

2.1 Transfer Station Operations

Covanta operates nearly 20 transfer stations across Massachusetts, New York, New Jersey, Pennsylvania, and Maryland. The transfer stations have an aggregate design capacity of more than 24,000 tons per day.

[1] According to findings from the research study entitled, "Recycling and Waste-to-Energy: Are They Compatible? 2009 Update" conducted by Governmental Advisory Associate. The study was partially sponsored by The Energy Recovery Council of which Covanta is a member.

2.2 EfW Operations Experience

No other vendor comes close to matching, the scope and magnitude of Covanta's EfW facility operations experience. Along with an emphasis on optimizing the mechanics and efficiency of operations and maintenance, Covanta has established a management structure that promotes coordination among its operations, engineering and construction management and business management groups. This ongoing process helps to ensure that Covanta's clients receive the resulting benefits of increased efficiency, reliability and environmental performance.

Covanta recognizes that achieving an extraordinary level of performance requires not just the best equipment, but also the best people and processes. From our front-line operators to our senior management, we employ many of the industry's top experts in environmental engineering, process control, and facility maintenance. It is their talent and skill that have allowed us to consistently lead the industry in technological innovations, operational performance, safety and environmental compliance.

2.3 Government Relations

Covanta's Government Relations team is responsible for educating and influencing public policy decisions to advance EfW. The Government Relations department advocates for, or against, hundreds of proposed laws and regulations every year which impact Covanta and the EfW industry. We collaborate with facility management teams to engage local government clients, build coalitions with stakeholders and enlist politicians to help advocate for EfW.

On climate change, we positioned EfW as a carbon mitigating technology in states around the U.S., including Hawaii, Virginia and Pennsylvania. One ton of MSW processed in an EfW facility reduces greenhouse gases by approximately one ton. To date, Covanta has reduced 350 million tons of greenhouse gas emissions. New EfW facilities are eligible to generate carbon offset credits. The Lee County, Florida, facility has been selling offset credits into the voluntary market since 2009, for example.

In addition to public policy work, the Government Relations team engages supporters to assist facility teams in expediting permits and other government actions.

2.4 Operations Portfolio

LOCATION	DESIGN CAPACITY		COVANTA INTEREST	DATE OF COVANTA OPERATIONS & / OR ACQUISITION	Facility Financing	Permitting & / or Permit Modifications	Design Engineering	Construction Management	Long-Term Operation	Performance Guarantees	OSHA VPP STAR
	Gross Electric (MW)	*Waste Disposal (TPD)*									
Alexandria / Arlington, VA	22.0	975	Owner/Operator	1988	■	■	■	■	■	■	■
Babylon, NY	16.8	750	Owner/Operator	1989	■	■	■	■	■	■	
Bristol, CT	16.3	650	Owner/Operator	1988	■	■	■	■	■	■	■
Camden, NJ	21.0	1,050	Owner/Operator	2013	■	■	■	■	■	■	■
Conshohocken, PA (Plymouth)	32.0	1,216	Owner/Operator	2009	■				■	■	■
Delaware Valley, PA	87.0	2,688	Lessee/Operator	2005	■	■			■	■	■
Durham York, ON	17.4	481	Operator	2014	■	■	■	■	■	■	
Essex County, NJ	66.0	2,277	Owner/Operator	2005	■	■	■	■	■	■	■
Fairfax County, VA	93.0	3,000	Owner/Operator	1990	■	■	■	■	■	■	■
Harrisburg, PA	20.8	800	Operator	2007	■	■		■	■	■	
Haverhill, MA	44.6	1,650	Owner/Operator	1989	■	■	■	■	■	■	■
Hempstead, NY	72.0	2,505	Owner/Operator	2005	■	■	■	■	■	■	■
Hennepin County, MN	38.7	1,212	Operator	1989	■	■			■	■	
Hillsborough County, FL	46.5	1,800	Operator	1987	■	■	■	■	■	■	■
Honolulu, HI	90.0	3,060	Operator	1990		■	■	■	■	■	■
Huntington, NY	24.3	750	Owner/Operator	1991	■	■	■	■	■	■	■
Huntsville, AL	NA	690	Operator	1990	■	■	■	■	■	■	■
Indianapolis, IN	6.5	2,362	Owner/Operator	1988	■	■	■	■	■	■	■
Islip (MacArthur), NY	12.0	486	Operator	2009	■				■	■	■
Kent County, MI	16.8	625	Operator	1990	■	■	■	■	■	■	■
Lake County, FL	14.5	528	Owner/Operator	1991	■	■	■	■	■	■	■
Lancaster County, PA	33.1	1,200	Operator	1991	■	■	■	■	■	■	■
Lee County, FL	57.3	1,836	Operator	1994	■	■	■	■	■	■	■
Long Beach, CA (SERRF)	36.0	1,380	Operator	2009	■				■	■	
Marion County, OR	13.1	550	Owner/Operator	1987	■	■	■	■	■	■	■
Miami-Dade County, FL (SEFLOR)	68.0	3,000	Operator	2010	■				■	■	■
Montgomery County, MD	63.4	1,800	Operator	1995	■	■	■	■	■	■	■
Niagara, NY	50.0	2,250	Owner/Operator	2005	■	■	■	■	■	■	■
Onondaga County, NY	39.2	990	Owner/Operator	1995	■	■	■	■	■	■	■
Pasco County, FL	29.7	1,050	Operator	1991	■	■	■	■	■	■	■
Pinellas County, FL	75.0	3,000	Operator	2014					■	■	
Pittsfield, MA	8.6	240	Owner/Operator	2007	■	■			■	■	■
Preston, CT (SECONN)	17.0	689	Owner/Operator	2005	■	■	■	■	■	■	■
Springfield, MA	9.4	400	Owner/Operator	2007	■	■			■	■	■
Stanislaus County, CA	22.4	800	Owner/Operator	1989	■	■	■	■	■	■	■
Tulsa, OK	16.5	1,125	Owner/Operator	2008	■	■	■	■	■	■	
Union County, NJ	42.1	1,440	Lessee/Operator	1994	■	■	■	■	■	■	■
Vancouver, Canada	25.0	720	Operator	2009					■	■	
Warren County, NJ	13.5	450	Owner/Operator	1988	■	■				■	■
West Wareham, MA (SEMASS)	78.0	2,700	Owner/Operator	2005	■	■			■	■	
York, PA	42.0	1,344	Operator	2009	■				■	■	■

3. Financial Strength

Since 1983, Covanta has undertaken construction and long-term operation of more than $5 billion of EfW infrastructure, all successfully executed by special purpose local project subsidiaries whose performance is backed by a substantial parent corporate guarantee. Whether publicly or privately owned, Covanta's proven technology, track record of consistently constructing EfW facilities on time and within budget, and operating them successfully in compliance with agreements differentiate the company from any competitor. Financial results for all of the Covanta family of companies are filed as part of a consolidated statement under the ultimate parent company, CHC, which will serve as Covanta's parent guarantor.

3.1 Project Finance Experience

Covanta's recent financing experience is summarized in the table below.

Project	Date	Value	Source of Funds	Rationale
Two New Jersey Transfer Stations	December 2013	US$8M	Cash on hand and available liquidity	• Increase stability and flexibility of fuel supply to EfW facilities in region; Expand sustainable waste offerings to customers in region
Camden Resource Recovery Facility	August 2013	US$49M	Cash on hand and available liquidity	• Smart financial transaction, Expand portfolio of EfW facilities
Delaware Valley	Dec 2012	US$94M	Cash on hand and available liquidity	• Secured ownership of facility from partner • Smart financial transaction
Refinance 3 EfWs	Nov 2012	US$335M	New tax-exempt bonds	• Freed up discretionary cash (~$290M) over 5 years
Greenfield facility in Ontario, Canada	2011	C$250M	Surety bonds	• Strategic addition • First commercial greenfield EfW facility financed in 21st century
H-Power Expansion	Dec 2009	US$302M	Surety bonds	• Expand core EfW facility production from 2,160 TPD to 3,060 TPD

3.2 Financial Summary

An overview of Covanta Holding Corporation's financial condition for the last five fiscal years is summarized in the table below. Full annual reports are available on Covanta's web site at: http://investors.covantaholding.com/.

	2014	2013	2012	2011	2010
Total Operating Revenues[2]	$1,682	$1,630	$1,644	$1,650	$1,583
Adjusted EPS[3]	$0.39	$0.38	$0.58	$0.54	$0.46
Adjusted EBITDA[4]	$474	$494	$507	$494	$476
Free Cash Flow[5]	$240	$251	$262	$282	$323

Note: Figures are in millions, US dollars.

[2] Revenues for the years 2010 to 2012 exclude revenues related to our insurance subsidiaries and discontinued operations (specifically independent power plants in Asia).
[3] Adjusted EPS for the years 2010 to 2012 exclude results related to our insurance subsidiaries and discontinued operations (specifically independent power plants in Asia).
[4] Adjusted EBITDA for the years 2010 to 2012 exclude results related to our insurance subsidiaries and discontinued operations (specifically independent power plants in Asia). Adjusted EBITDA for the year 2009 exclude results related to our discontinued operations (specifically independent power plants in Asia).
[5] Free Cash Flow for the years 2010 to 2012 exclude results related to our insurance subsidiaries and discontinued operations (specifically independent power plants in Asia).

4. Health and Safety

Covanta's commitment to health and safety helps us maintain consistent productivity and quality work that supports our reputation as a renewable energy leader in the energy-from-waste (EfW) sector. We maintain a comprehensive health and safety program at all Covanta facilities and operations. Over the years, our dedication to safety has resulted in a reduction of accident and incident rates, as well as fostering a work ethic that promotes the health and safety of every employee, contractor, visitor, customer and the community we serve. We also reward our employees for engaging in proactive behavior that helps us to improve safety performance.

4.1 Safety Excellence Programs and External Recognition

The majority of domestic Covanta facilities participate in the Voluntary Protection Program (VPP) of the U.S. Occupational Safety and Health Administration (OSHA). Under VPP, management, labor and OSHA together establish cooperative Most of Covanta Energy's facilities are VPP Star Work sites. relationships at workplaces to implement a comprehensive safety and health management system.

Acceptance into VPP is OSHA's official recognition of the outstanding efforts of employers and employees to achieve exemplary occupational safety and health policies, procedures and practices.

We are also very proud to be among the top 10 companies in the United States to enter the majority of our operating locations into the OSHA VPP STAR program. Covanta has led more than 40 of its locations into the VPP STAR ranks of excellence. In addition, we maintain an internal safety awareness initiative that combines targeted communications with specialized training to facilitate a greater commitment to safety in the workplace.

4.2 Emergency Preparedness

Covanta has developed an Emergency Action Plan (EAP) for each community in which we operate. We view emergency preparedness as a natural extension of our health and safety program that considers the safety of all employees and community members to be everyone's responsibility. EAPs are written to comply with OSHA regulations and additional local regulatory requirements. Facility personnel are required to complete an exam testing their understanding and awareness of EAP provisions upon start of employment and must partake in our annual certification process.

Health and safety is one of our utmost important priorities at our energy-from-waste facilities and other operations around the world.

ATTACHMENT 11 & 16

FITTING HARMONIOUSLY INTO THE NATURAL ENVIRONMENT AND EXISTING USES AND SCENIC CHARACTER

MEMO

To: Kyle Sullivan

From: Roger St.Amand

Re: **MRC / FR Processing Facility Application | DEP# S-022458-WK-A-N Response to MDEP February 3, 2016 Letter**

Date: February 8, 2016

Kyle,

The MDEP letter from February 3, 2016, regarding the MRC / FR solid waste processing facility application requested additional information regarding Attachments 11 & 16; Fitting Harmoniously into the Natural Environment and Existing Uses and Scenic Character. Specifically, the letter requested a formal response to comments from IF&W dated March 18, 2015, regarding maintenance of deer wintering areas and habitat management.

Response: As part of the MDEP NRPA and Solid Waste Applications, IF&W provided comments on August 18, 2015. IF&W also provided a letter on March 15, 2015, in response to a site visit with CES and staff biologist Keel Kemper to review the site prior to submitting applications, and a letter on March 18, 2015, in response to a request for environmental review. The IF&W letter from March 18 mentioned bat species and deer wintering areas.

Bats were addressed as part of the federal permitting process as mentioned in the March 18 letter. In consultation with U.S. Fish and Wildlife Service (USFWS) staff, a survey plan was developed and implemented to assess the site for bat activity. An acoustical survey was conducted during the summer of 2015 to identify presence of Northern Long Eared Bats (NLEB). The survey did not identify any federally protected bat species within the site. As part of the permitting process with federal agencies, activities at the site will follow recommended management guidelines provided by USFWS, including the recently released Final 4D rule to minimize potential impacts to listed bat species. Management recommendations include:

- Avoiding tree clearing activities within 025 miles of known hibernaculum.
- Removal of a known roost tree, and avoiding tree clearing within 150 feet of a known occupied maternity roost tree from June 1 through July 31.

Six Locations in Maine | www.ces-maine.com

465 South Main Street
PO Box 639
Brewer, Maine 04412
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F 207.989.4881

IF&W comments from August 18, 2015, included addressing the long term management of the deer wintering area on-site, and providing for protection of habitats associated with vernal pool breeding amphibians. CES submitted a response letter to MDEP staff on October 22, 2015, addressing the August 18 comments. The CES response letter indicated a forest management plan could be provided to address wildlife habitat concerns as part of compensatory mitigation plan, including deer wintering areas and vernal pool critical terrestrial habitat. This management plan is under development and is being completed in consultation with IF&W and federal permitting agencies. The final management plan, completed by a Licensed Professional Forester, can be provided as a condition of the permit prior to construction, subject to review and approval by IF&W. The 80 acres of the conservation area will include a perpetual conservation easement to protect the habitat area, and be held by a qualified conservation group. The management plan will address the wildlife habitat objectives identified by IF&W and provide for long term benefits to wildlife. The plan includes silvicultural prescriptions to enhance and maintain softwood cover for deer wintering areas; specific vernal pool terrestrial habitat management guidelines, and riparian corridor protection to protect water quality as primary objectives.

Background: The natural resource permitting requires both federal NRPA and Army Corps of Engineers (ACOE) approval under Section 404 of the Clean Water Act and the Maine General Permit for the project. The application submitted in June proposed preservation of 80 acres of the remaining MRC land as compensatory mitigation for impacts to protected natural resources. MDEP has indicated they will accept preservation of the remaining parcel, along with the management plan mentioned above to address IFW concerns over deer wintering areas and significant vernal pool habitats within the preservation area. ACOE denied the proposed compensatory mitigation approach and requested alternative compensation methods be developed. ACOE prefers this project use the in lieu fee program (ILF) for compensation, but may accept the preservation area if it can be part of a larger conservation block within the region, or a partial compensation. We have been in ongoing discussions with federal permitting agencies to identify an acceptable compensatory mitigation package. Currently, this includes preservation of the 80 acres and the wildlife habitat area outlined in the letter. We are working with IF&W biologists and stakeholders to finalize the plan.

Sincerely,

Roger St.Amand, LF#3523, CSS, LSE, CPESC,
Senior Project Scientist, Licensed Professional Forester

RSA/jok

ATTACHMENT 12

SITE DESIGN INFORMATION

ATTACHMENT 12 - REVISED

SITE DESIGN INFORMATION

SITE PLAN

Refer to the attached *Overall Site Plan* showing the area within 500 feet of the solid waste handling areas showing all structures; protected natural resources; roads; property boundaries; receiving, processing, curing (NA) and storage areas; residences; erosion and sedimentation control features; odor control structures (NA); water supply wells and springs; and barriers or fencing and gates to prevent unauthorized persons access to the site.

PLAN VIEWS

Refer to the attached *Proposed Site Plan* depicting the buildings; processing unit(s); utilities; and storm water and erosion and sedimentation control structures.

SUBSURFACE INVESTIGATION INFORMATION

A subsurface investigation has been completed by SW Cole, Inc. (SW Cole) as part of this project to evaluate that soil bearing capacity is sufficient to support the proposed processing facility. Please refer to the attached report.

AQUIFER MAP

Attached is a copy of the most recent Maine Geological Survey *Significant Sand and Gravel Aquifer Map* with the facility site and the waste handling area clearly delineated.

REPORT

August 17, 2015
15-0024 S

Explorations and Geotechnical Engineering Services

Proposed MRC Facility
Hampden, Maine

PREPARED FOR:
CES, Inc.
Attention: Mr. Sean Thies, P.E.
465 South Main Street
P.O. Box 639
Brewer, ME 04412

PREPARED BY:
S. W. Cole Engineering, Inc.
37 Liberty Drive
Bangor, ME 04401
(207) 848-5714

S.W.COLE ENGINEERING, INC.

- *Geotechnical Engineering*
- *Construction Materials Testing*
- *GeoEnvironmental Services*
- *Ecological Services*

www.swcole.com

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15-0024 S

August 17, 2015

CES, Inc.
Attention: Mr. Sean Thies, P.E.
465 South Main Street
P.O. Box 639
Brewer, ME 04412

Subject: Explorations and Geotechnical Engineering Services
Proposed MRC Facility
Hampden, Maine

Dear Sean:

In accordance with our Agreement, we have performed subsurface explorations for the subject project. This report summarizes our findings and geotechnical recommendations and its contents are subject to the limitations set forth in Attachment A.

1.0 INTRODUCTION

1.1 Scope and Purpose

The purpose of the work was to explore the subsurface conditions at the site and provide geotechnical recommendations relative to foundation design and earthwork associated with the proposed construction. Our scope of services included coordination and observation of twenty-six test borings, soils laboratory testing, geotechnical analysis of the subsurface findings and preparation of this report.

1.2 Site and Proposed Construction

Based on the information provided by CES, Inc. we understand development plans call for construction of a new pre-engineered steel processing facility with associated paved and stormwater management areas. The proposed site is located on the easterly side of Coldbrook Road, south of Interstate 95, in an industrial zoned area. A 5,000 linear foot access road is proposed through the currently wooded site. We understand the proposed processing facility will occupy a plan area of about 148,000 square feet and is proposed at a finished floor elevation of 144.5 feet. An administration building, located

on the northwest side of the facility, will be wood framed and occupy a plan area of about 9,800 square feet. Paved drives and parking areas are proposed to the north and east of the facility. Storage tanks are proposed on the northern side of the facility with vertical heights on the order of 65 feet. A truck scale is planned on the northern side of the facility, adjacent to the storage tanks. The site will require up to 4 feet of fill to achieve bottom of slab grade for the southern portions of the facility.

The general site location is shown on the "Site Location Map," attached as Sheet 1. Proposed and existing site features are shown on the "Exploration Location Plan" attached as Sheet 1A.

2.0 EXPLORATION AND TESTING

2.1 Exploration

Twenty-six test borings (B-1 to B-26) were made on the site during the period April 28, 2015 through May 1, 2015. The explorations were made by S.W.COLE Explorations, LLC (a division of S. W. Cole Engineering, Inc.). The test boring locations were selected by S. W. Cole Engineering Inc. (S.W.COLE) and located at the site by CES, Inc. Logs of the explorations are attached as Sheets 2 through 28. Ground surface elevations noted on the test boring logs were provided by CES, Inc. A key to the notes and symbols used on the logs is attached as Sheet 29.

2.2 Testing

The borings were performed using hollow stem augers and the soils were sampled at 2 to 5 foot intervals using Standard Penetration Testing (SPT) techniques. SPT blow counts and penetrometer tests performed on cohesive soils are shown on the test boring logs. Soil samples obtained from the explorations were returned to our laboratory for visual classification and testing. Four grain size analysis tests were performed on selected samples of glacial till soils and results are presented on Sheets 30 to 33.

3.0 SITE AND SUBSURFACE CONDITIONS

3.1 Surficial

The proposed building site is wooded with access through an existing gravel road. The ground surface elevation ranges from about 138 to 148 feet within the proposed building area. The ground surface elevation within the majority of the building area ranges from about 142 to 144 feet. Numerous boulders were observed on the ground surface within the central portion of the building area and north of the building where the exterior tanks and truck scale are planned.

3.2 Soil

The test borings made in the area of the proposed building encountered either medium dense and dense glacial till soil or silty clay soil overlying medium dense and dense glacial till soil. The silty clay soils are mostly hard to very stiff consistency. The clays become soft and compressible with depth in the easterly portion of the site. Soft clay was encountered at the northeasterly building corner (test boring B-19) at a depth of 8.5 to 10.9 feet below the existing ground surface. The test borings encountered refusal (probable bedrock) at elevations ranging from about 121.5 feet in the southerly portion of the site to 142 feet in the area of the proposed storage tanks.

Not all the strata were encountered at each exploration. Please refer to the attached logs for more detailed subsurface information.

3.3 Groundwater

Groundwater was observed in the majority of the test borings. The average groundwater elevation observed during drilling was approximately 136 feet. Long term groundwater information is not available. It should be anticipated that seasonal groundwater levels will fluctuate, especially during periods of snowmelt and precipitation. Water likely perches atop the silty clay and glacial till soils.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 General Findings

Based on the subsurface findings, the proposed construction appears feasible from a geotechnical standpoint. The principle geotechnical considerations are as follows:

- Perimeter frost walls, spread footing foundations and a slab-on-grade floor bearing on properly prepared subgrades appear suitable for the proposed building.
- Footings should bear on at least 12 inches of compacted Crushed Stone wrapped in geotextile fabric overlying undisturbed native soils.
- The on-grade floor slab should bear on at least 12 inches of properly compacted Structural Fill overlying properly prepared subgrades.
- Bedrock was encountered near anticipated foundation grade in the proposed exterior storage tank area and along a relatively short section of the northerly building wall. We recommend that a contingency be made for bedrock removal by drilling and blasting.
- Project design should incorporate underdrains at the perimeter footing grade.
- Subgrades across the site will consist of clays and glacial till that is easily disturbed by construction activities. Rubber tired construction equipment should not operate directly on the native clays and glacial till. Low ground pressure tracked equipment will be needed and temporary haul roads overlying geotextile fabric may be necessary. Excavation of bearing surfaces should be completed with a smooth-edged bucket to lessen subgrade disturbance.

4.2 Site and Subgrade Preparation

We recommend that site preparation begin with the construction of an erosion control system to protect adjacent drainage ways and areas outside the construction limits. As much vegetation as possible should remain outside the construction areas to lessen the potential for erosion and site disturbance.

All forest duff and surficial soils with organics must be completely removed from beneath the proposed building, entrance slabs and paved areas until undisturbed native non-organic soils is encountered. We recommend the bottom of footing subgrade consist of brown silty clay, glacial till or bedrock (if encountered). We recommend that excavations be completed with a smooth-edged bucket to help lessen disturbance of native soils and foundation bearing surfaces. S.W.COLE should observe exposed subgrades prior to placement of footings or compacted fill.

The silty clay encountered at the proposed storage tank area must be completely removed beneath the proposed foundation until undisturbed glacial till or bedrock is encountered. Overexcavation of the silty clay should extend 1-foot laterally outward from edge of foundations for every 1-foot of vertical excavation depth (1H:1V bearing splay). Overexcavations should be backfilled to foundation elevation with compacted Structural Fill or Crushed Stone.

Bedrock was encountered near anticipated excavation depths along the northern wall. We recommend that a contingency be made for bedrock removal by drilling and blasting.

We recommend the subgrade fill required for the paved areas be placed as early in the construction schedule as possible. Soft, compressible gray silty clay was encountered at the test borings for the paved areas on the easterly portion of the site. Early placement of the fill may assist to minimize potential consolidation of the silty clay strata prior to placement of the pavement.

4.3 Excavations and Dewatering

Excavation work will generally encounter silty clay and glacial till soils. Care must be exercised during construction to limit disturbance of the bearing soils. Earthwork and grading activities should occur during drier Summer and Fall seasons. Rubber tired construction equipment should not operate directly on the native soils. Final cuts to subgrade elevation in soil should be performed with a smooth-edged bucket to help reduce soil disturbance.

Sumping and pumping dewatering techniques should be adequate to control groundwater in excavations. Controlling the water levels to at least 1 foot below planned excavation depths will help stabilize subgrades during construction. Excavations must be properly shored or sloped in accordance with OSHA regulations to prevent sloughing and caving of the sidewalls during construction. The design and planning of excavations, excavation support systems, and dewatering is the responsibility of the contractor.

4.4 Foundation Design

We recommend the following for foundation design:

Facility

Foundations for the facility should be cast on 12 inches of compacted Crushed Stone wrapped with a geotextile filter fabric (Mirafi 160N or equivalent) overlying undisturbed native soils. The native soils must consist of silty clay, glacial till or bedrock (if encountered). The Crushed Stone layer may be reduced to 6 inches for bedrock subgrades and the geotextile fabric may be omitted. Where Structural Fill or Granular Borrow is required to raise existing grades to footing elevation, the geotextile wrapped crushed stone layer is not required.

Exterior Storage Tanks

Foundations for the exterior storage tanks should be cast on 12 inches of compacted Crushed Stone wrapped with a geotextile filter fabric (Mirafi 160N or equivalent) overlying undisturbed native soils. The native soils must consist of glacial till or bedrock. The Crushed Stone layer may be reduced to 6 inches for bedrock subgrades and the geotextile fabric may be omitted.

We recommend the following geotechnical parameters for foundation design:

Design Frost Depth	5 feet
Allowable Soil Bearing Pressure	3.5 ksf
Modulus of Subgrade Reaction	150 pci
Seismic Soil Site Class	D (IBC 2009)
Total Unit Weight of Backfill	130 pcf (compacted Structural Fill)
Active Lateral Earth Pressure Coefficient	0.30 (compacted Structural Fill)
At-Rest Lateral Earth Pressure Coefficient	0.5 (compacted Structural Fill)
Passive Lateral Earth Pressure Coefficient	3.0 (compacted Structural Fill)
Estimated Post-Construction Settlement	Less than 1/2 inch
Base Friction Factor	0.4 (Crushed Stone)

4.5 Slab-On-Grade

On-grade floor slabs in heated areas may be designed using a subgrade reaction modulus of 150 pci (pounds per cubic inch) provided the slab is underlain by at least 12-inches of compacted Structural Fill overlying properly prepared subgrades. We recommend compacted Granular Borrow or Structural Fill be used for subgrade fill

within the building area. The structural engineer or concrete consultant must design steel reinforcing and joint spacing appropriate to slab thickness and function.

We recommend a sub-slab vapor retarder particularly in areas of the building where the concrete slab will be covered with an impermeable surface treatment or floor covering that may be sensitive to moisture vapors. The vapor retarder must have a permeance that is less than the floor cover or surface treatment that is applied to the slab. The vapor retarder must have sufficient durability to withstand direct contact with the sub-slab base material and construction activity. The vapor retarder material shall be placed according to the manufacturer's recommended method, including the taping and lapping of all joints and wall connections. The architect and/or flooring consultant should select the vapor retarder products compatible with flooring and adhesive materials.

The floor slab should be appropriately cured using moisture retention methods after casting. Typical floor slab curing methods should be used for at least 7 days. The architect or flooring consultant should assign curing methods consistent with current applicable American Concrete Institute (ACI) procedures with consideration of curing method compatibility to proposed surface treatments, flooring and adhesive materials.

4.6 Backfill and Compaction

We recommend the following fill and backfill materials for use during construction:

Granular Borrow: Mixture of sand and gravel, meeting the MDOT Standard Specification 703.19 "Granular Borrow". Granular Borrow is recommended for:

- Fill to raise building and paved areas
- Fill to raise landscape areas

Structural Fill: Clean, non-frost susceptible, sand and gravel, free of organics and other deleterious materials meeting the following gradation:

Structural Fill	
Sieve Size	Percent Finer by Weight
4 Inch	100
3 Inch	90 to 100
¼ Inch	25 to 90
#40	0 to 30
#200	0 to 5

Structural Fill is recommended for:

- Fill to raise building and paved areas
- Backfill for foundations exposed to freezing temperatures (interior and exterior of perimeter building foundations, as well as outdoor structures such as light pole bases)
- Slab-on-grade base material
- Backfill within the frost-free transition zones for building entrances and sidewalks

Crushed Stone: Crushed Stone, used beneath foundations and for drainage aggregate, should meet the gradation requirements of MDOT Standard Specifications 703.22 "Underdrain Backfill Type C".

Placement and Compaction: Fill should be placed in horizontal lifts and compacted such that the desired density is achieved throughout the lift thickness with 3 to 5 passes of the compaction equipment. Loose lift thicknesses for grading, fill and backfill activities should not exceed 12 inches. We recommend that fill and backfill in building areas be compacted to at least 95 percent of its maximum dry density as determined by ASTM D-1557. Crushed Stone should be compacted in loose lifts not exceeding 12-inches with 2 to 3 passes of a vibratory plate compactor with a static weight of at least 600 lbs.

4.7 Foundation Drainage

We recommend an underdrain system be installed on the outside edge of the geotextile fabric wrapped Crushed Stone layer recommended below perimeter footings. The underdrain pipe should consist of 4-inch diameter, perforated SDR-35 foundation drain

pipe bedded in Crushed Stone and wrapped in non-woven geotextile fabric. We understand a drip strip is proposed along the northern and southern walls, we recommend that a relatively impermeable media be placed between the Crushed Stone of the drip strip and the foundation wall backfill. The underdrain pipe must have a positive gravity outlet protected from freezing, clogging and backflow. Surface grades should be sloped away from the buildings for positive surface water drainage. A general underdrain detail is illustrated on Sheet 34.

4.8 Control Joints

Post-construction settlement of the facility is expected to be 1/2 inch or less, provided subgrades are prepared properly. We recommend that control joints be provided in the floor slab and foundation walls to accommodate minor post-construction movement and shrinkage in the concrete as it cures.

4.9 Entrances

Entrance slabs adjacent to the addition must be designed to reduce the effects of differential frost action between adjacent doorways and entrances. We recommend that non-frost susceptible Structural Fill be provided to a depth of at least 5 feet below the top of entrance slabs. This thickness of Structural Fill should extend the full width of the entrance slabs and, thereafter transitioning up to the bottom of the adjacent roadway gravels at a 3H:1V or flatter slope. General details of this frost transition zone are illustrated on Sheet 34.

4.10 Pavement Considerations

We understand that the entrance drive and the loading dock area will be subject to heavy vehicle loadings and the remainder of the parking areas will be subjected to passenger car and light truck traffic.

We recommend the following pavement sections for your consideration. The materials are based on Maine Department of Transportation Standard Specifications.

BITUMINOUS PAVEMENT SECTIONS		
Pavement Layer	**Standard Duty**	**Heavy Duty**
Maine DOT 12.5 mm Superpave (50 Gyration Design)	1½ inches	1½ inches
Maine DOT 19.0 mm Superpave (50 Gyration Design)	2 inches	2½ inches
Maine DOT Crushed Aggregate Base 703.06 Type A	6 inches	6 inches
Maine DOT Aggregate Subbase 703.06 Type D	12 inches	18 inches
Geotextile Stabilization Fabric (Mirafi 600X or equivalent)		

Given the variable subgrade soils and potential for saturated subgrades, we recommend the use of a geotextile stabilization fabric such as Mirafi 600X (or equivalent) between subgrade soils and new subbase gravel.

The base and subbase materials should be compacted to at least 95 percent of their maximum dry densities as determined by ASTM D-1557 (Modified Proctor). Bituminous pavement should be compacted to 92 to 97 percent of its theoretical maximum density as determined by ASTM D-2041. The binder and surface pavements should be placed during the same construction season. Tack coat between pavement layers is recommended. Consideration should be given to the development of both surface and subgrade drainage. If used, the underdrains may consist of 4-inch diameter slotted underdrain pipe with filter sock enveloped in Maine DOT 703.22 Type B Underdrain. The underdrains should be installed at a depth of 5 feet to provide frost protection and the outlets should be protected from freezing. The underdrains will require positive gravity outlets.

We understand fill on the order of 4 feet will be required to attain subgrade elevation for portions of the loading dock area. We recommend using compacted Granular Borrow or subbase gravel.

Where utilities are proposed beneath the new paved areas, backfilling of the utility trenches should be made in a manner to reduce differential frost action. Utility pipes should be bedded and surrounded using materials consistent with the manufacturer's specifications. Above the utility bedding, backfill in trenches should be material similar to that in the trench sidewalls to lessen the potential for differential frost action between the trench and the adjacent materials. The backfill material should be placed in

horizontal lifts not exceeding 12 inches in thickness and should be compacted to a density similar to that of the material in the adjacent trench sidewalls.

Frost penetration can be on the order of 5 feet or more in this area of the state. In the absence of full depth excavation of frost susceptible soils or use of insulation, frost will penetrate into the subgrade and some frost heaving and pavement distress must be anticipated.

4.11 Weather Considerations

Construction activity should be limited during wet and freezing weather, and the site soils may require drying before construction activities may continue. The contractor should anticipate the need for water to temper fills in order to facilitate compaction during dry weather. If construction takes place during cold weather, subgrades, foundations and floor slabs must be protected during freezing conditions. Concrete and fill must not be placed on frozen soil; and once placed, the concrete and soil beneath the structure must be protected from freezing.

4.12 Design Review and Construction Testing

S.W.COLE should be retained to review the final design and specifications to determine that our earthwork and foundation recommendations have been properly interpreted and implemented.

A soils and concrete testing program should be implemented during construction to observe compliance with the design concepts, plans, and specifications. S.W.COLE is available to provide subgrade observations for foundations and roadways as well as testing services for soils and concrete.

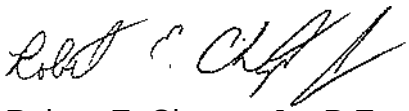
5.0 CLOSURE

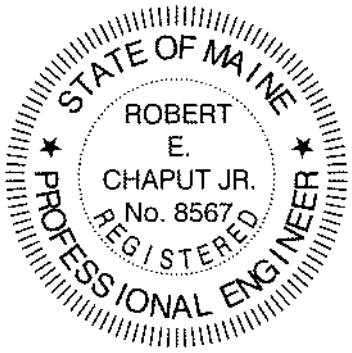
It has been a pleasure to be of assistance to you with this phase of your project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,

S. W. Cole Engineering, Inc.

Nathan D. Strout, P.E.
Geotechnical Engineer





Robert E. Chaput, Jr., P.E.
Senior Geotechnical Engineer

NDS:rec

ATTACHMENT A
Limitations

This report has been prepared for the exclusive use of CES, Inc. for specific application to the proposed MRC Facility in Hampden, Maine. S. W. Cole Engineering, Inc. has endeavored to conduct the work in accordance with generally accepted soil and foundation engineering practices. No warranty, expressed or implied, is made.

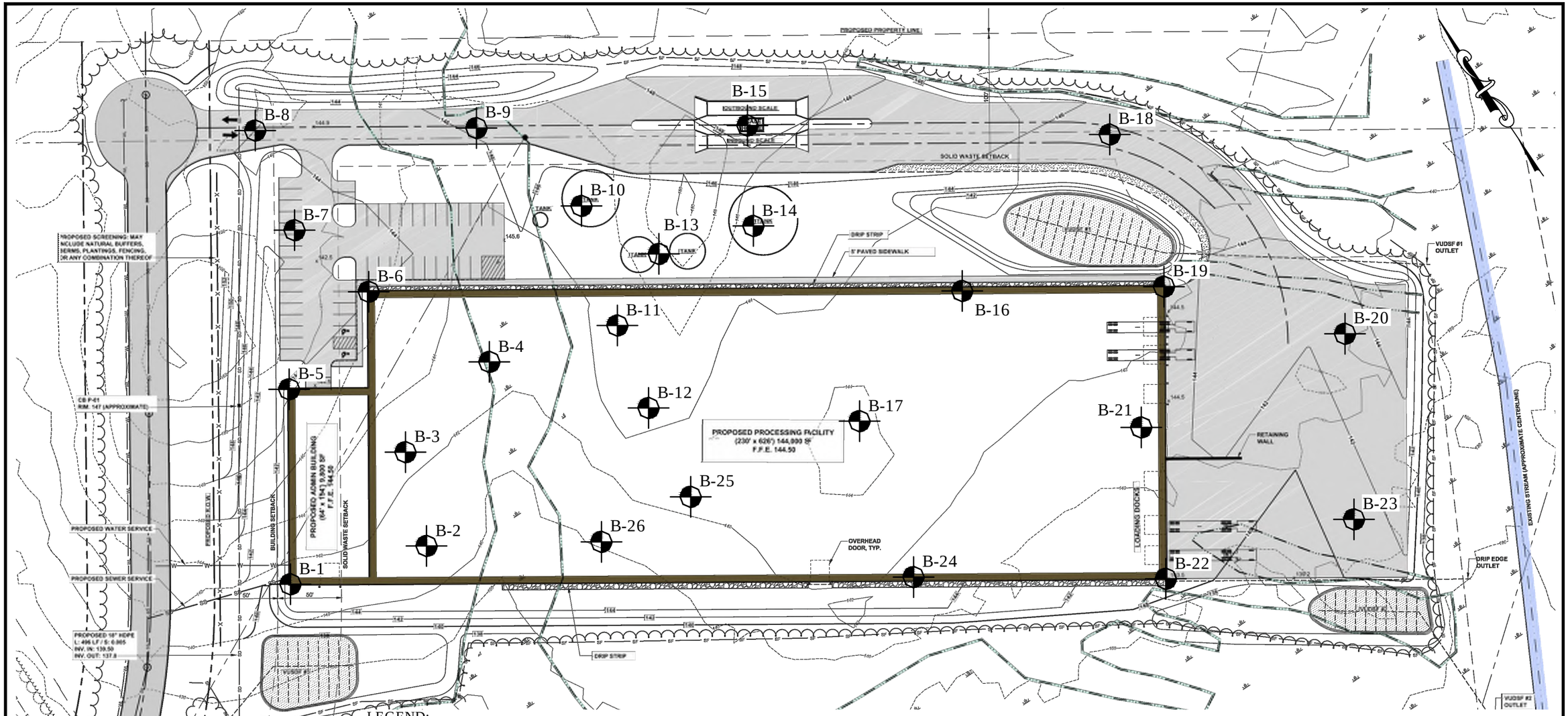
The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

The analyses performed during this assessment and recommendations presented in this report are based in part upon the data obtained from subsurface explorations made at the site. Variations in subsurface conditions may occur between explorations and may not become evident until construction. If variations in subsurface conditions become evident after submission of this report, it will be necessary to evaluate their nature and to review the recommendations of this report.

Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

S. W. Cole Engineering, Inc.'s scope of work has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

Recommendations contained in this report are based substantially upon information provided by others regarding the proposed project. In the event that any changes are made in the design, nature, or location of the proposed project, S. W. Cole Engineering, Inc. should review such changes as they relate to analyses associated with this report. Recommendations contained in this report shall not be considered valid unless the changes are reviewed by S. W. Cole Engineering, Inc.



LEGEND:

APPROXIMATE BORING LOCATION

NOTES:

1. EXPLORATION LOCATION PLAN WAS PREPARED FROM A 1"=40' SCALE PLAN OF THE SITE ENTITLED "PROPOSED SITE PLAN," PREPARED BY CES, INC., DATED MAY 12, 2015 AND PROVIDED AS A PORTABLE DOCUMENT FORMAT (PDF) FILE.
2. THE BORINGS WERE LOCATED IN THE FIELD BY SURVEY BY CES, INC. AND PROVIDED ON A SCALE PLAN OF THE SITE IN AUTOCAD DWG FORMAT.
3. THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT.
4. THE PURPOSE OF THIS PLAN IS ONLY TO DEPICT THE LOCATION OF THE EXPLORATIONS IN RELATION TO THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION AND IS NOT TO BE USED FOR CONSTRUCTION.

S.W.COLE ENGINEERING, INC.

CES, INC.

EXPLORATION LOCATION PLAN

PROPOSED MRC FACILITY
COLDBROOK ROAD
HAMPDEN, MAINE

Job No.:	15-0024	Scale:	1" = 80'
Date :	08/14/2015	Sheet:	1A

R:\2015\15-0024\CAD\Drawings\15-0024 ELP.dwg, 8/14/2015 9:31:49 AM, 1:1, CEM, S. W. Cole Engineering, Inc.

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-1**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/28/2015
DATE FINISH: 4/28/2015
ELEVATION: 141.2' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
NO FREE WATER OBSERVED

CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN.	SAMPLE REC.	SAMPLE DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.0'	TOPSOIL
	1D	24"	12"	2.0'	2	2	6	7		BROWN GRAVELLY SILTY SAND (GLACIAL TILL)
	2D	8"	8"	2.7'	13	50/2"			2.6'	
									3.9'	WEATHERED BEDROCK
										AUGER REFUSAL @ 3.9' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-1**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-2**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/28/2015
DATE FINISH: 4/28/2015
ELEVATION: 140.7' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 7.0' AT COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.8'	TOPSOIL
	1D	24"	18"	2.0'	1	1	2	3		BROWN SANDY SILT
									2.8'	~ LOOSE ~
	2D	24"	24"	4.0'	6	9	10	10		q_p = 8.5-9+ ksf
										BROWN SILTY CLAY
										~ HARD CONSISTENCY BECOMING VERY STIFF WITH DEPTH ~
	3D	24"	24"	7.0'	4	6	7	9	7.2'	q_p = 5 ksf
										BROWN GRAVELLY SILTY SAND (GLACIAL TILL)
	4D	16"	14"	11.3'	10	12	50/4"		11.3'	~ MEDIUM DENSE ~
										SPLIT SPOON AND AUGER REFUSAL @ 11.3'
										(PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-2**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-3**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/28/2015
DATE FINISH: 4/28/2015
ELEVATION: 142.6' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 4.5' AT COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.8'	TOPSOIL
	1D	24"	21"	2.0'	1	2	5	6		q_p = 9+ ksf
										BROWN SILTY CLAY
	2D	24"	24"	7.0'	4	7	7	18		q_p = 8.5-9 ksf
										~ HARD CONSISTENCY BECOMING VERY STIFF WITH DEPTH ~
	3D	24"	24"	11.5'	4	7	7	18	11.2'	q_p = 6.5-7 ksf
										BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
	4D	24"	10"	16.0'	7	16	31	33		~ DENSE ~
									17.7'	
										AUGER REFUSAL @ 17.7'
										(PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-3**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-4**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/28/2015
DATE FINISH: 4/28/2015
ELEVATION: 141.9' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
NO FREE WATER OBSERVED

CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN.	SAMPLE REC.	SAMPLE DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.0'	TOPSOIL
	1D	24"	3"	2.0'	1	1	2	4		
	2D	24"	20"	4.0'	8	13	16	15		BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
	3D	24"	19"	7.0'	9	10	9	10		~ MEDIUM DENSE ~
									7.8'	AUGER REFUSAL @ 7.8' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-4**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-5**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/28/2015
DATE FINISH: 4/28/2015
ELEVATION: 147.7' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
NO FREE WATER OBSERVED

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.7'	TOPSOIL
	1D	24"	14"	2.0'	1	4	3	3		BROWN SANDY SILT, SOME GRAVEL (GLACIAL TILL)
	2D	24"	23"	4.0'	8	14	8	8		~ MEDIUM DENSE ~
									5.0'	
	3D	24"	15"	7.0'	5	9	13	13		BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
										~ MEDIUM DENSE ~
	4D	23"	14"	10.9'	4	13	18	50/5"	10.9'	
										SPLIT SPOON AND AUGER REFUSAL @ 10.9'
										(PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

	DRILLER - VISUALLY
X	SOIL TECH. - VISUALLY
X	LABORATORY TEST

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-5**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-6**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/28/2015
DATE FINISH: 4/28/2015
ELEVATION: 146.6' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 9.5' AT COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.8'	TOPSOIL
	1D	24"	24"	2.0'	2	5	7	8		BROWN SILTY CLAY
									2.6'	~ VERY STIFF CONSISTENCY ~ q_p = 5-6 ksf
	2D	24"	19"	4.0'	5	32	35	42		
										~ DENSE ~
	3D	24"	12"	7.0'	13	23	20	25		BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
										~ MEDIUM DENSE ~
	4D	24"	16"	12.0'	6	13	12	15		
									13.9'	
										AUGER REFUSAL @ 13.9'
										(PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-6**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-7**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/28/2015
DATE FINISH: 4/28/2015
ELEVATION: 148.0' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 3.0' AT COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.9'	TOPSOIL
	1D	24"	21"	2.0'	1	2	4	7		BROWN SILTY CLAY
									3.4'	~ VERY STIFF CONSISTENCY ~ q_p = 7-8 ksf
	2D	24"	24"	4.0'	7	9	15	21		
	3D	24"	21"	6.0'	8	18	18	20		BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
										~ DENSE ~
									10.7'	
	4D	24"	19"	11.0'	8	20	32	37	11.0'	WEATHERED BEDROCK
										BOTTOM OF EXPLORATION @ 11.0'

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-7**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-8**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/28/2015
DATE FINISH: 4/28/2015
ELEVATION: 147.6' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
NO FREE WATER OBSERVED

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.9'	TOPSOIL
	1D	24"	24"	2.0'	4	6	8	10		BROWN SILTY CLAY
									3.6'	~ HARD CONSISTENCY ~ q_p = 9+ ksf
	2D	23"	13"	4.0'	3	3	4	50/5"		
										BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
	3D	24"	23"	7.0'	9	24	26	36		~ DENSE ~
	4D	8"	1"	10.2'	13	50/2"			10.2'	
										SPLIT SPOON REFUSAL @ 10.2'
										(PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-8**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-9**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/29/2015
DATE FINISH: 4/29/2015
ELEVATION: 144.7' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
NO FREE WATER OBSERVED

CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN.	SAMPLE REC.	SAMPLE DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.1'	TOPSOIL
	1D	24"	17"	4.0'	8	11	15	20		BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL) ~ MEDIUM DENSE ~
	2D	12"	6"	6.0'	10	14	50/0"		6.0'	SPLIT SPOON AND AUGER REFUSAL @ 6.0' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-9**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-10**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/29/2015
DATE FINISH: 4/29/2015
ELEVATION: 144.5' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 4.0' AFTER COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN.	SAMPLE REC.	SAMPLE DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.0'	TOPSOIL
	1D	24"	16"	3.0'	2	7	14	10		BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
	2D	24"	20"	6.0'	8	13	48	35		~ DENSE ~
	3D	24"	22"	11.0'	7	10	13	12		~ MEDIUM DENSE ~
									12.0'	AUGER REFUSAL @ 12.0' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-10**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-11**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/29/2015
DATE FINISH: 4/29/2015
ELEVATION: 144.6' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 12.4' IN AUGERS

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.8'	TOPSOIL
	1D	24"	5"	2.0'	1	3	4	5		BROWN GRAVELLY SAND AND SILT WITH COBBLES (GLACIAL TILL)
	2D	24"	18"	4.0'	6	12	11	10		
	3D	24"	14"	6.0'	5	9	11	12		~ MEDIUM DENSE ~
	4D	24"	13"	11.0'	15	12	16	17		
	5D	5"	3"	14.2'	50/5"				14.2'	
										SPLIT SPOON AND AUGER REFUSAL @ 14.2' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[X] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-11**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-12**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 5/1/2015
DATE FINISH: 5/1/2015
ELEVATION: 145.1 +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 9.2' IN AUGERS

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.8'	TOPSOIL
	1D	24"	14"	4.0'	5	17	33	34		BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
	2D	24"	13"	6.0'	17	29	19	27		~ DENSE ~
	3D	24"	12"	11.0'	10	22	18	17	12.5'	
										AUGER REFUSAL @ 12.5' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-12**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-13**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/29/2015
DATE FINISH: 4/29/2015
ELEVATION: 146.7' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
NO FREE WATER OBSERVED

CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN.	SAMPLE REC.	SAMPLE DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.9'	TOPSOIL
										BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
	1D	24"	17"	4.0'	12	26	20	22		
	2D	10"	5"	5.0'	13	50/4"			5.0'	~ DENSE ~
										SPLIT SPOON AND AUGER REFUSAL @ 5.0' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-13**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-14**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/29/2015
DATE FINISH: 4/29/2015
ELEVATION: 144.4' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
NO FREE WATER OBSERVED

CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN.	SAMPLE REC.	SAMPLE DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.0'	TOPSOIL
	1D	24"	22"	4.0'	4	6	8	8		BROWN SILTY CLAY q_p = 9+ ksf
	2D	24"	24"	7.0'	3	6	6	16	6.8'	~ HARD CONSISTENCY BECOMING VERY STIFF WITH DEPTH ~ q_p = 4.5-5.5 ksf
	3D	24"	15"	12.0'	10	10	12	13	12.5'	BROWN SILTY GRAVELLY SAND WITH COBBLES (GLACIAL TILL) ~ MEDIUM DENSE ~
										AUGER REFUSAL @ 12.5' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[X] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-14**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-15**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/28/2015
DATE FINISH: 4/28/2015
ELEVATION: 147.5' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
NO FREE WATER OBSERVED

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.9'	TOPSOIL
	1D	12"	7"	3.0'	4	11	25/0"			BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
	2D	14"	12"	5.2'	28	15	50/2"		5.2'	~ MEDIUM DENSE ~
										SPLIT SPOON AND AUGER REFUSAL @ 5.2' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-15**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-16**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/29/2015
DATE FINISH: 4/29/2015
ELEVATION: 142.8' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 5.0' AFTER COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.9'	TOPSOIL
	1D	24"	16"	4.0'	19	20	19	20		~ DENSE ~ BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
	2D	24"	15"	7.0'	7	19	26	28		
	3D	24"	12"	12.0'	9	24	16	30		~ MEDIUM DENSE ~
	4D	20"	13"	16.2'	9	20	32	50/2"	16.2'	SPLIT SPOON REFUSAL @ 16.2' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-16**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-17**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/30/2015
DATE FINISH: 4/30/2015
ELEVATION: 144.2' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 7.5'

CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN.	SAMPLE REC.	SAMPLE DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.8'	TOPSOIL
	1D	10"	4"	2.8'	14	50/4"				BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
	2D	24"	14"	6.5'	10	26	28	27		~ DENSE ~
	3D	20"	12"	10.7'	27	29	33	50/2"	10.7'	
										SPLIT SPOON AND AUGER REFUSAL @ 10.7' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

	DRILLER - VISUALLY
X	SOIL TECH. - VISUALLY
	LABORATORY TEST

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-17**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-18**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/29/2015
DATE FINISH: 4/29/2015
ELEVATION: 142.9' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 3.0' AFTER COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.0'	TOPSOIL
	1D	24"	20"	4.0'	5	5	6	5		BROWN SANDY SILT
	2D	24"	24"	7.0'	3	3	4	4		~ MEDIUM DENSE ~
									8.5'	
	3D	24"	24"	12.0'	1 FOR 12"		1	2		GRAY SILTY CLAY
	4D	24"	14"	17.0'	WOH	WOH	WOH	WOH		~ SOFT CONSISTENCY ~
									18.4'	
	5D	23"	16"	21.4'	4	10	15	50/5"	21.4'	GRAY GRAVELLY SILTY SAND (GLACIAL TILL) ~ MEDIUM DENSE ~
										SPLIT SPOON REFUSAL @ 21.4' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

	DRILLER - VISUALLY
X	SOIL TECH. - VISUALLY
	LABORATORY TEST

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-18**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-19**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/30/2015
DATE FINISH: 4/30/2015
ELEVATION: 142.2' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 5.0' AFTER COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.8'	TOPSOIL
	1D	24"	24"	4.0'	4	5	7	8		BROWN MOTTLED SILTY CLAY q_p = 7-7.5 ksf
	2D	24"	24"	7.0'	4	6	9	11		~ VERY STIFF CONSISTENCY ~ q_p = 6-6.5 ksf
									8.5'	
	3D	24"	24"	11.3'	1	1	1	11	10.9'	GRAY SILTY CLAY q_p = 0.5-1 ksf ~ SOFT CONSISTENCY ~
	4D	24"	15"	16.0'	13	15	22	11		GRAY GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL) ~ MEDIUM DENSE ~
	5D	10"	4"	20.3'	11	50/4"			20.3'	
										SPLIT SPOON REFUSAL @ 20.3' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-19**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-20**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/30/2015
DATE FINISH: 4/30/2015
ELEVATION: 140.2' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 8.0' AFTER COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.0'	TOPSOIL
	1D	24"	24"	4.0'	3	5	5	5		GRAY-BROWN CLAYEY SILT q_p = 4-5 ksf
	2D	24"	24"	7.0'	2	2	3	5		~ STIFF CONSISTENCY ~ q_p = 3.5-4 ksf
									9.0'	
										GRAY SILTY CLAY
										~ SOFT CONSISTENCY ~
	3D	24"	24"	12.0'	1	1	1	2	12.0'	
										BOTTOM OF EXPLORATION @ 12.0'

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-20**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-21**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/30/2015
DATE FINISH: 4/30/2015
ELEVATION: 140.9' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 5.5' AFTER COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.1'	TOPSOIL
	1D	24"	24"	4.0'	3	6	8	10		BROWN MOTTLED SILTY CLAY q_p = 6.5-7.5 ksf
	2D	24"	24"	6.0'	2	6	7	9		~ VERY STIFF CONSISTENCY ~ q_p = 5-5.5 ksf
									8.0'	
	3D	24"	2"	11.0'	2	5	8	9		BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
										~ MEDIUM DENSE ~
	4D	4"	3"	14.3'	50/4"				14.3'	
										AUGER REFUSAL @ 14.3' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-21**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-22**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/30/2015
DATE FINISH: 4/30/2015
ELEVATION: 138.5' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 6' AFTER COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.0'	TOPSOIL
	1D	24"	6"	4.0'	5	7	8	9		BROWN MOTTLED SILTY CLAY
	2D	24"	24"	6.0'	3	4	7	9		~ VERY STIFF CONSISTENCY ~ q_p = 6-6.5 ksf
									8.5'	
	3D	24"	16"	11.0'	10	13	14	12		BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
										~ MEDIUM DENSE ~
	4D	14"	5"	15.2'	8	11	50/2"		15.2'	
										SPLIT SPOON REFUSAL @ 15.2' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-22**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-23**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/30/2015
DATE FINISH: 4/30/2015
ELEVATION: 138.6' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 7.0' AFTER COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN.	SAMPLE REC.	SAMPLE DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.0'	TOPSOIL
	1D	24"	17"	4.0'	5	6	5	4	4.8'	BROWN SILT AND FINE SAND ~ MEDIUM DENSE ~
	2D	24"	24"	6.0'	3	3	3	3	9.7'	BROWN SILTY CLAY q_p = 3.5-4.5 ksf ~ STIFF CONSISTENCY ~
	3D	24"	24"	11.0'	2	1	2	2	11.0'	GRAY SILTY CLAY ~ SOFT CONSISTENCY ~
										BOTTOM OF EXPLORATION @ 11.0'

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-23**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-24**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 4/30/2015
DATE FINISH: 4/30/2015
ELEVATION: 141.7' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 6' AFTER COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN.	SAMPLE REC.	SAMPLE DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.2'	TOPSOIL
	1D	24"	24"	4.0'	8	10	9	26	3.6'	BROWN MOTTLED SILTY CLAY ~ HARD CONSISTENCY ~ q_p = 9+ ksf
	2D	23"	19"	5.9'	10	21	28	50/5"	5.9'	BROWN GRAVELLY SILTY SAND (GLACIAL TILL) ~ DENSE ~
									8.0'	FRACTURED BEDROCK
										AUGER REFUSAL @ 8.0' (BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-24**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-25**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 5/1/2015
DATE FINISH: 5/1/2015
ELEVATION: 141.1 +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
NO FREE WATER OBSERVED

CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN.	SAMPLE REC.	SAMPLE DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									1.0'	TOPSOIL
	1D	10"	6"	2.8'	10	50/4"				BROWN GRAVELLY SILTY SAND WITH COBBLES (GLACIAL TILL)
	2D	24"	15"	6.0'	9	21	20	20	6.5'	~ DENSE ~
										SPLIT SPOON AND AUGER REFUSAL @ 6.5' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

	DRILLER - VISUALLY
X	SOIL TECH. - VISUALLY
	LABORATORY TEST

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-25**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-26**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 5/1/2015
DATE FINISH: 5/1/2015
ELEVATION: 139.7' +/-
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 4.0' AFTER COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	SAMPLE PEN.	SAMPLE REC.	SAMPLE DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.9'	TOPSOIL
	1D	24"	24"	4.0'	12	20	17	19		BROWN SILTY SAND AND GRAVEL WITH COBBLES (GLACIAL TILL)
	2D	24"	17"	7.0'	12	19	22	38		~ DENSE ~
	3D	8"	5"	10.7'	30	50/2"			10.7'	
										SPLIT SPOON REFUSAL @ 10.7' (PROBABLE BEDROCK)

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-26**

S.W.COLE ENGINEERING, INC.

BORING LOG

BORING NO.: **B-27**
SHEET: 1 OF 1
PROJECT NO.: 15-0024 S
DATE START: 5/1/2015
DATE FINISH: 5/1/2015
ELEVATION:
SWC REP.: KJH

PROJECT / CLIENT: PROPOSED MRC FACILITY / CES, INC.
LOCATION: HAMPDEN, MAINE
DRILLING CO. : S.W.COLE EXPLORATIONS, LLC
DRILLER: BOB MARCOUX

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HSA	2 1/2"		
SAMPLER:	SS	1 3/8"	140 LB	30"
CORE BARREL:				

WATER LEVEL INFORMATION
WATER @ 8.0' AFTER COMPLETION OF BORING

CASING BLOWS PER FOOT	SAMPLE NO.	PEN.	REC.	DEPTH @ BOT	SAMPLER BLOWS PER 6" 0-6	6-12	12-18	18-24	DEPTH	STRATA & TEST DATA
									0.8'	TOPSOIL
	1D	24"	24"	4.0'	4	6	8	9	4.5'	BROWN SANDY SILT WITH TRACE OF CLAY ~ MEDIUM DENSE ~
	2D	24"	24"	7.0'	4	6	5	5	8.0'	BROWN SILTY FINE SAND ~ MEDIUM DENSE ~
	3D	24"	24"	12.0'	1	1	2	2		GRAY CLAYEY SILT q_p = 1 ksf
	2"x7" VANE			13.0'						
	4D	24"	24"	17.0'	WOH	WOH	1 FOR 12"			~ SOFT CONSISTENCY ~
	5D	24"	24"	22.0'	2	2	3	4	22.1'	
									22.5'	BROWN GRAVELLY SILTY SAND (GLACIAL TILL)
										BOTTOM OF EXPLORATION @ 22.5'

SAMPLES:
D = SPLIT SPOON
C = 2" SHELBY TUBE
S = 3" SHELBY TUBE
U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
[ ] DRILLER - VISUALLY
[X] SOIL TECH. - VISUALLY
[ ] LABORATORY TEST

REMARKS:
STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

BORING NO.: **B-27**

KEY TO THE NOTES & SYMBOLS
Test Boring and Test Pit Explorations

All stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q_u	-	unconfined compressive strength, kips/sq. ft. - laboratory test
S_v	-	field vane shear strength, kips/sq. ft.
L_v	-	lab vane shear strength, kips/sq. ft.
q_p	-	unconfined compressive strength, kips/sq. ft. – pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W_L	-	liquid limit - Atterberg test
W_P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass.
γ_T	-	total soil weight
γ_B	-	buoyant soil weight

Description of Proportions:

Trace:	0 to 5%
Some:	5 to 12%
"Y"	12 to 35%
And	35+%
With	Undifferentiated

Description of Stratified Soils

Parting:	0 to 1/16" thickness
Seam:	1/16" to 1/2" thickness
Layer:	½" to 12" thickness
Varved:	Alternating seams or layers
Occasional:	one or less per foot of thickness
Frequent:	more than one per foot of thickness

REFUSAL: **Test Boring Explorations** - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: **Test Pit Explorations** - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.

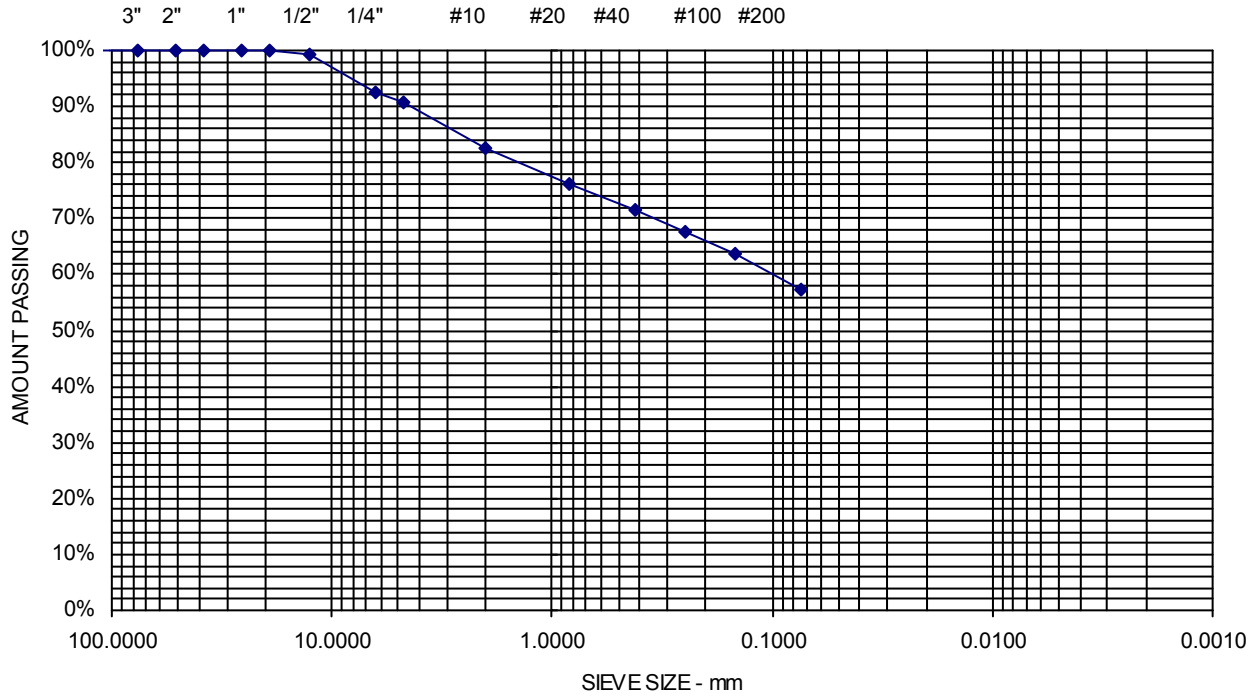
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	HAMPDEN ME - MRC FACILITY - GEOTECHNICAL ENGINEERING SERVICES	Project Number	15-0024
Client	C E S, INC.	Lab ID	18762B
Exploration	**2D**	Date Received	8/10/2015
Material Source	**B-5, 2' - 4'**	Date Completed	8/11/2015
		Tested By	NICOLAS TRÉBOUET

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150	**6"**	**100**	
125	**5"**	**100**	
100	**4"**	**100**	
75	**3"**	**100**	
50	**2"**	**100**	
38.1	**1-1/2"**	**100**	
25.0	**1"**	**100**	
19.0	**3/4"**	**100**	
12.5	**1/2"**	**99**	
6.3	**1/4"**	**92**	
4.75	**No. 4**	**91**	9.3% Gravel
2.00	**No. 10**	**82**	
850	**No. 20**	**76**	
425	**No. 40**	**72**	33.3% Sand
250	**No. 60**	**68**	
150	**No. 100**	**64**	
75	**No. 200**	**57.4**	57.4% Fines



Comments:

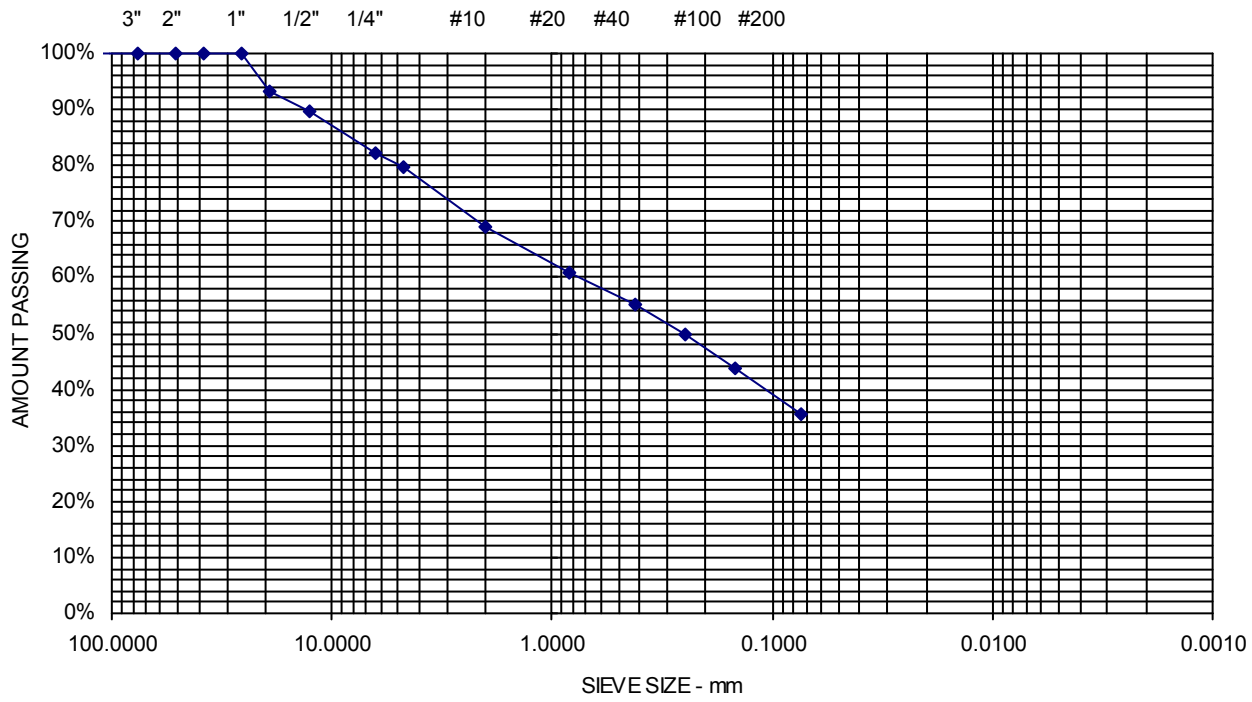
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	HAMPDEN ME - MRC FACILITY - GEOTECHNICAL ENGINEERING SERVICES	Project Number	15-0024
Client	C E S, INC.	Lab ID	18763B
Exploration	**2D**	Date Received	8/10/2015
Material Source	**B-11, 2' - 4'**	Date Completed	8/11/2015
		Tested By	NICOLAS TRÉBOUET

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150	**6"**	**100**	
125	**5"**	**100**	
100	**4"**	**100**	
75	**3"**	**100**	
50	**2"**	**100**	
38.1	**1-1/2"**	**100**	
25.0	**1"**	**100**	
19.0	**3/4"**	**93**	
12.5	**1/2"**	**90**	
6.3	**1/4"**	**82**	
4.75	**No. 4**	**80**	20.4% Gravel
2.00	**No. 10**	**69**	
850	**No. 20**	**61**	
425	**No. 40**	**55**	44.1% Sand
250	**No. 60**	**50**	
150	**No. 100**	**44**	
75	**No. 200**	**35.5**	35.5% Fines



Comments:

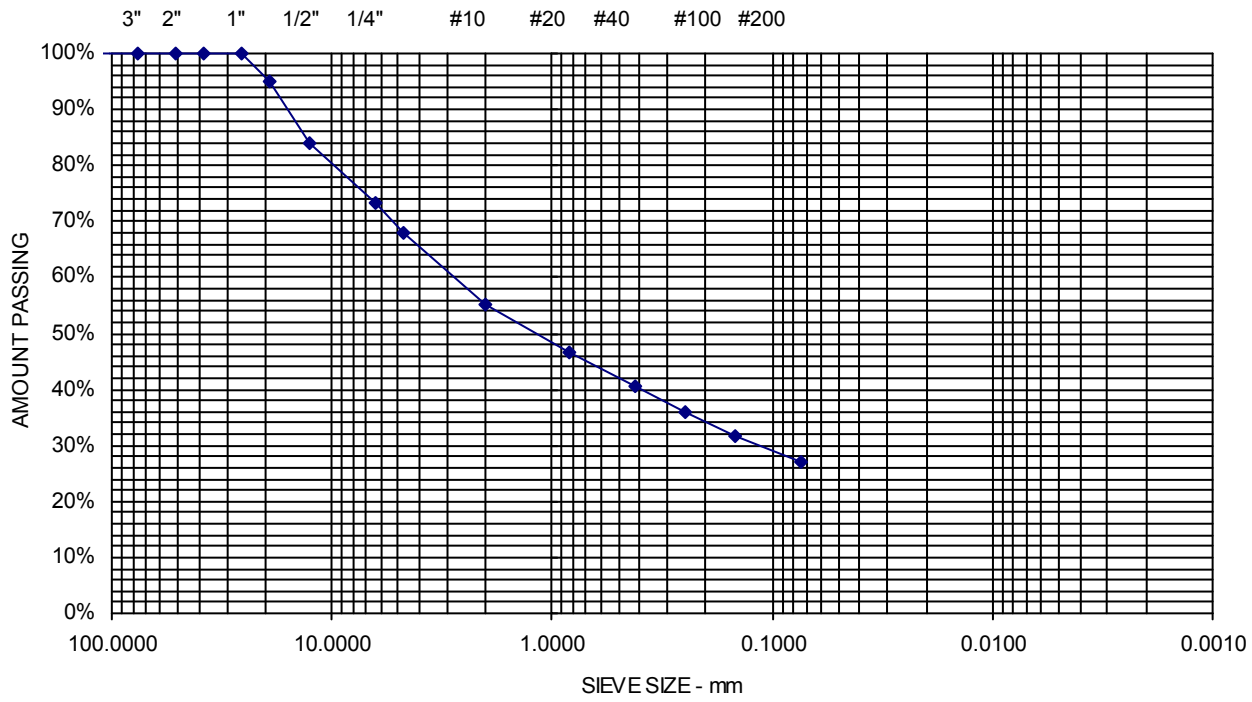
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	HAMPDEN ME - MRC FACILITY - GEOTECHNICAL ENGINEERING SERVICES	Project Number	15-0024
Client	C E S, INC.	Lab ID	18764B
Exploration	**3D**	Date Received	8/10/2015
Material Source	**B-14, 10' - 12'**	Date Completed	8/12/2015
		Tested By	NICOLAS TRÉBOUET

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150	**6"**	**100**	
125	**5"**	**100**	
100	**4"**	**100**	
75	**3"**	**100**	
50	**2"**	**100**	
38.1	**1-1/2"**	**100**	
25.0	**1"**	**100**	
19.0	**3/4"**	**95**	
12.5	**1/2"**	**84**	
6.3	**1/4"**	**73**	
4.75	**No. 4**	**68**	32.2% Gravel
2.00	**No. 10**	**55**	
850	**No. 20**	**47**	
425	**No. 40**	**40**	40.7% Sand
250	**No. 60**	**36**	
150	**No. 100**	**32**	
75	**No. 200**	**27.1**	27.1% Fines



Comments:

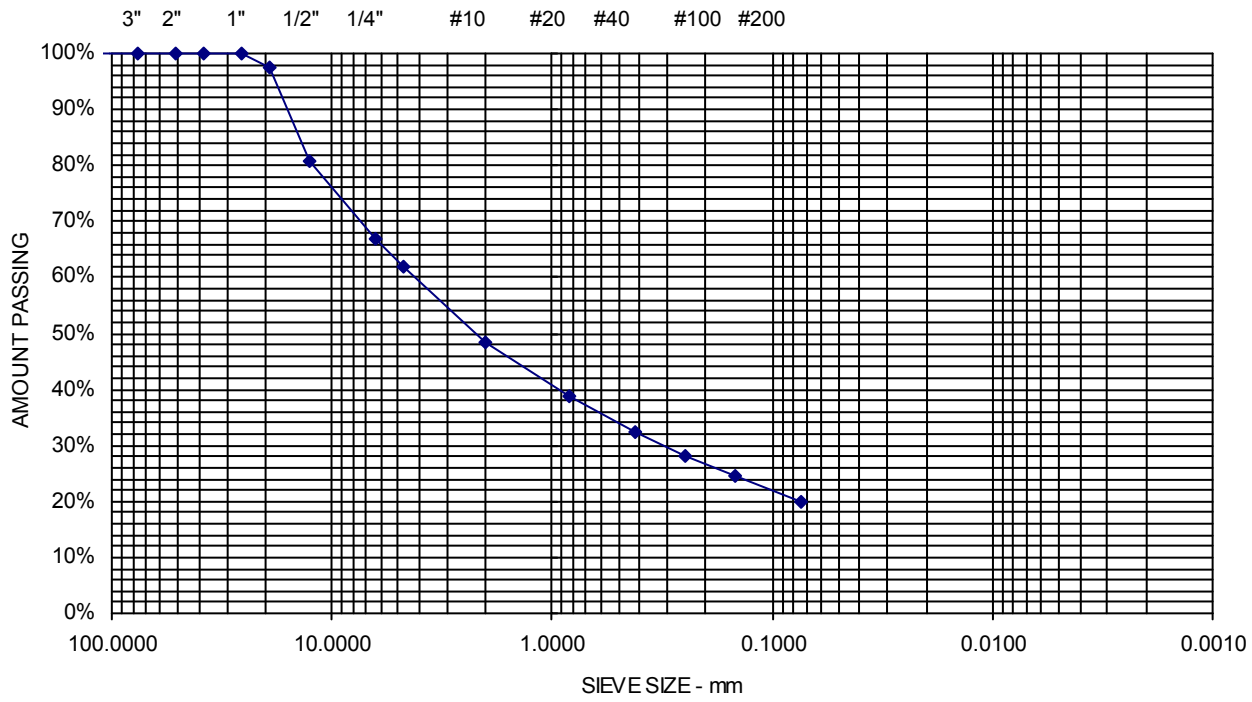
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	HAMPDEN ME - MRC FACILITY - GEOTECHNICAL ENGINEERING SERVICES	Project Number	15-0024
Client	C E S, INC.	Lab ID	18765B
Exploration	**2D**	Date Received	8/10/2015
Material Source	**B-26, 5' - 7'**	Date Completed	8/12/2015
		Tested By	NICOLAS TRÉBOUET

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	
150	**6"**	**100**	
125	**5"**	**100**	
100	**4"**	**100**	
75	**3"**	**100**	
50	**2"**	**100**	
38.1	**1-1/2"**	**100**	
25.0	**1"**	**100**	
19.0	**3/4"**	**97**	
12.5	**1/2"**	**81**	
6.3	**1/4"**	**67**	
4.75	**No. 4**	**62**	38.2% Gravel
2.00	**No. 10**	**48**	
850	**No. 20**	**39**	
425	**No. 40**	**32**	41.8% Sand
250	**No. 60**	**28**	
150	**No. 100**	**24**	
75	**No. 200**	**20.0**	20% Fines



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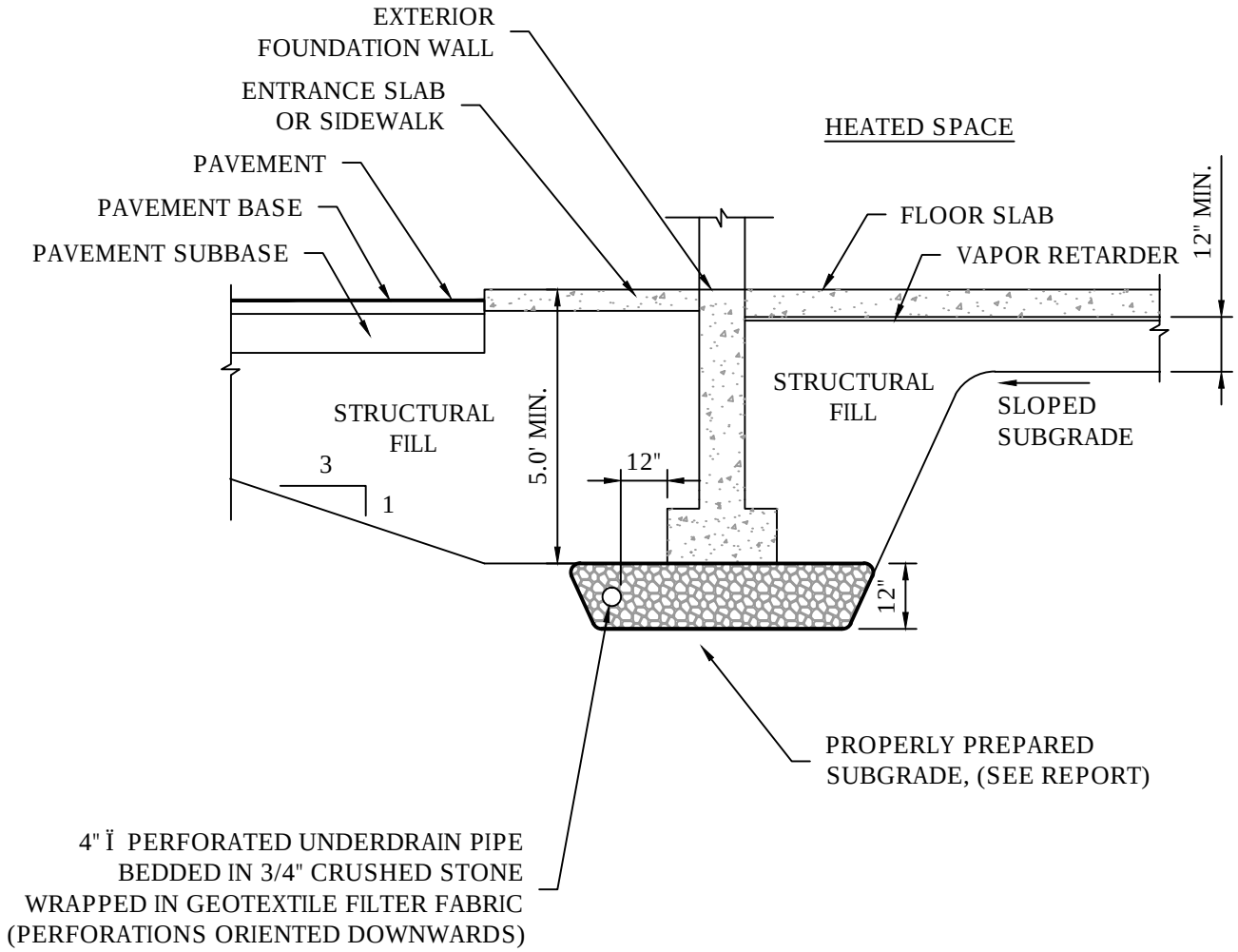


NOTE:

1. UNDERDRAIN INSTALLATION AND MATERIAL GRADATION RECOMMENDATIONS ARE CONTAINED WITHIN THIS REPORT.

2. DETAIL IS PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY, NOT FOR CONSTRUCTION.

S.W.COLE ENGINEERING, INC.

CES, INC.

UNDERDRAIN DETAIL

PROPOSED MRC FACILITY
COLDBROOK ROAD
HAMPDEN, MAINE

Job No.:	15-0024	Scale:	Not to Scale
Date :	08/17/2015	Sheet:	34

ATTACHMENT 13

PROCESS DESIGN INFORMATION

ATTACHMENT 13 - REVISED

PROCESS DESIGN INFORMATION

The following information describes the facility's waste processing system in accordance with 06 096 CMR Chapter 409.3.C (Process Design Characteristics).

Process Flow Diagram

Included in this Attachment is an overall process flow diagram outlining the general procedures for handling and processing MSW at the Fiberight facility.

Source and Volume of MSW

The proposed Fiberight facility is expected to receive an average of 410 to 550 tons of MSW per day. To account for seasonal fluctuations in waste deliveries, the facility will be designed to accept up to 950 tons and process up to 650 tons of MSW per day. MSW accepted at the facility will originate from within MRC communities, other communities that have relied on PERC for MSW disposal and any other communities interested in utilizing the Fiberight facility for disposal services.

Characteristics of Waste to be Received

In general, MSW that is accepted at the facility includes solid waste emanating from household and normal commercial sources. Municipal solid waste includes front end process residue from the processing of municipal solid waste. MSW generally includes but is not limited to food waste and other types of organic waste, plastics, construction and demolition debris, metals, glass, household hazardous waste, and other types of miscellaneous waste disposed with normal household and commercial refuse.

Products and Waste Generated

As shown on the attached process flow diagram, Fiberight will process MSW received into the facility into several different categories. The resultant products generated at the facility will include recyclables which will be sold on the open commodities market; post hydrolysis solids (PHS) which will be used to fuel the on-site biomass boilers; bio-methane which will be piped to the adjacent Bangor Natural Gas Loring Pipeline; and biomass fuel (sugar) which will be sold on the open commodities market.

The resultant residue waste products generated at the facility will be removed via screens in the first sort of the production process. This waste is typically 2 inches or less in size and once removed, will be loaded out on walking floor semis and transferred for disposal at a licensed landfill facility. A breakdown of the residues to be landfilled is included in this Attachment.

Methods Utilized to Mix Waste

Refer to the *Maine Process Description* document provided by Fiberight and included in this Attachment.

Methods Utilized to Process Waste

Refer to the *Maine Process Description* document provided by Fiberight and included in this Attachment.

Methods Utilized to Store Waste

MSW will enter the facility and be unloaded on a tipping floor located inside the building. The tipping floor is designed with capacity for approximately two days of MSW receipts and two days of primary processed material. The MSW is moved from the tipping floor to the processing line as quickly as possible. The efficiency of the processing operation is partially reliant on the facility continuously processing the organics for entry into the wash stage of the process prior to decomposition. Fiberight will utilize the principle of First-In-First-Out operation to the maximum extent possible to minimize the residence time of waste on the tipping floor.

Residue Storage: Residues generated from sorting through normal operations which results in material needing to be landfilled will be temporarily stored in roll-off containers or trailers. Residues will not be stored on site for any longer than 24 hours. Once a container or trailer is filled it will be transferred within 24 hours to a licensed solid waste facility for landfilling.

Biomass Boiler Ash: Fiberight estimates that the facility may generate 3,000 to 4,000 tons of ash per year. The ash generated on-site will be the result of utilizing post hydrolysis solids (PHS) to fuel two biomass boilers on-site. The boilers will be used to supply power for facility operations. Ash generated will be stored in 40 cubic yard ash bins inside the building. When bins become full, ash will then be loaded into 100 cubic yard transport trailers and transported off-site to a licensed secure landfill for final disposal.

Methods Utilized to Store Products

Recyclable Storage: Recyclables removed from the waste that can be baled on-site will be temporarily stored in 100 cubic yard transport trailers. Larger metal recyclables that cannot be bailed will be stored in 40 cubic yard dump trailers. Recyclables will only be stored on-site long enough to fill transport trailers and then will be shipped and sold as commodities on the open market.

Post Hydrolysis Solids (PHS): The filtered Post Hydrolysis Solids (PHS) are discharged from the Filter Press and sent to two biomass boilers which will provide energy for the process. PHS will be continuously fed from the filter press to the biomass boilers and therefore long term storage of this material is not anticipated. In the unlikely event that PHS cannot be continuously fed to the boiler, PHS will be temporarily stockpiled on the floor adjacent to the boiler feed conveyor hopper. After the boiler is back on line and able to accept PHS, PHS will then be loaded onto the boiler feed conveyors using a Bobcat loader.

Bio-methane: Bio-methane generated at the facility will be injected into the adjacent Bangor Natural Gas pipeline. No on-site storage of bio-methane is proposed for this project.

Biomass fuel (Industrial Sugar): Industrial Sugars produced at the facility will be stored Sugar Storage Tanks to be shipped and sold as industrial sugar or the filtered hydrolysate is fed to the anaerobic digestion plant for conversion to biogas. The exact disposition of the filtered hydrolysate is dependent on current contractual, market and operational conditions.

Processing Equipment Used On-site

Refer to the *Maine Process Description* document provided by Fiberight and included in this Attachment.

Provisions for Characterization

In accordance with 06 096 CMR Chapter 405.6.C. solid wastes proposed to be disposed at a solid waste disposal facility must be characterized in conformance with the requirements listed in 06 096 CMR Chapter 405.6.C. Fiberight will be producing non-organic residues and ash requiring disposal at a licensed solid waste facility. Non-organic residues which may be classified as "Miscellaneous Wastes" listed in 06 096 CMR Chapter 405.6.C.(2). The analytical requirements listed include the following:

- Complete Toxicity Characteristic Leaching Procedure (TCLP) (per US EPA Method 1311, Federal Register/Volume 55, No. 126, 1992);
- Totals for Aluminum, Arsenic, Barium, Boron, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, and Zinc (per Methods in US EPA SW-846);
- Chloride, percent carbon, percent moisture, pH, phosphorus;
- Reactivity Characteristics;
- Ignitability Characteristics; and
- Additional parameters as identified by the applicant or the Department. These additional parameters must be based upon the raw material, the proposed activity, or the facility.

Fiberight anticipates generating between 3,000 and 4,000 tons of ash per year in the facility's biomass boiler. Ash will be disposed of in a landfill licensed to accept it and will be characterized in accordance with 06 096 CMR Chapter 405.6.C(4) and sampled for those parameters listed for biomass and fossil fuel boiler ash. Prior to initial acceptance at a solid waste facility, a sufficient number of samples to meet the requirements for statistical analysis as required by US EPA SW-846 must be analyzed as follows:

- TCLP Metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver) per US EPA Method 1311, Federal Register/Volume 55, No. 126, 1992;
- Chloride, percent carbon, percent moisture, pH, phosphorus.

After initial characterization is complete, ash must be analyzed for the parameters listed above at a frequency of one representative sample quarterly.

Waste Derived Product Standards

Waste derived products include PHS and ash. None of these products are proposed to be used such that they will require the Applicant to meet the standards of 06 096 CMR Chapter 418: Beneficial Use of Solid Waste or 419: Agronomic Utilization of Residuals. PHS will be utilized on-site to fuel the biomass boilers and is exempt from the requirements of 06 096 CMR Chapter 418. Ash generated on-site will be disposed in a secure landfill licensed to accept it.

Technology Review Fiberight Process for MSW

MRC contracted with the University of Maine's Forest Bioproducts Research Institute (FBRI) to conduct a peer review study of the Fiberight's technology to convert MSW to biofuels and other products. The results of the study concluded Fiberight's processing technology is sound and capable of converting the insoluble portion of MSW organics to a simple sugar solution. Presently at their pilot plant, Fiberight has successfully used sugar solutions from both the insoluble and soluble portion of MSW to produce biogas through anaerobic digestion (AD). FBRI prepared a report on January 30, 2015 titled *Technology Review Fiberight Process for MSW*. The report was subsequently provided to MRC. A copy of the report is provided in this Attachment. No substantial design changes to the Fiberight process for MSW provided in this Application have been made such that the outcome of the Report's findings would be meaningfully altered.

Maine PHS Boiler/Steam Turbine Generator Summary		
	PHS Boiler #1	PHS Boiler #2
BOILER		
PHS Feed Rate as Received (TPH)	5.62	5.62
PHS Heating Value @ 50.00% H_2O (Btu/lb)	4,232	4,232
PHS Heating Value @ 40.93% H_2O (Btu/lb)	5,000	5,000
PHS Feed Rate @ 40.93% H_2O (TPH)	4.76	4.76
Combined Fuel Input (Btu/hr)	47,600,000	47,600,000
Boiler Efficiency (%)	75.11%	75.11%
Heat Output (mmBtu/hr)	35,752,360	35,752,360
Steam Sp. Enthalpy @ 405 psig/750°F (Btu/lb)	1,388.7	1,389.0
Heat Absorbed by Steam (Btu/lb)	1,199.7	1,199.7
Total Steam Flow Produced (lbs/hr)	29,801	29,801
STEAM TURBINE GENERATOR (STG)	**Back Pressure**	**Fully Condensing**
CONDENSER OPTION	**N/A**	**Surface Cond.**
Steam Flow to BPSTG for Process (lbs/hr)	24,671	-
Steam Flow to FCSTG (lbs/hr)	-	34,931
Inlet Steam Pressure (psig)	405	405
Inlet Steam Temperature (°F)	750	750
Inlet Steam Sp. Ethalpy (Btu/lb)	1,388.7	1,389.0
Inlet Energy Flow (mmBtu/hr)	34,260,618	48,519,391
Extraction Steam Flow (lbs/hr)	0	0
Extraction Steam Pressure (psig)	N/A	N/A
Extraction Steam Sp. Ethalpy (Btu/lb)	N/A	N/A
Extraction Steam Temperature (°F)	N/A	N/A
Outlet Steam Pressure (psig)	150	-13.5
Outlet Steam Temperature (°F)	519.4	108
Ideal Outlet Steam Sp. Ethalpy (Btu/lb)	1280.9	934.7
Steam Turbine Isentropic Eff. (%)	62.4	67.0
Outlet Steam Sp. Ethalpy (Btu/lb)	1,321.4	1,084.6
Generator Eff. (%)	95.0	95.0
Outlet Energy Flow (mmBtu/hr)	32,601,069	37,887,008
Extraction Steam Outlet Energy Flow (mmBtu/hr)	N/A	N/A
Energy Output (mmBtu/hr)	1,659,549	10,632,384
Power Output - Gross (MWe)	**0.462**	**2.960**
Power Output - Net (MWe)	**0.416**	**2.664**

ATTACHMENT 15

TRAFFIC

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☑ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Coldbrook Rd from I-95 NB to Rte 202 in Hampden

REPORT PARAMETERS

Year 2012, Start Month 1 through Year 2014 End Month: 12

Route: **1900553**	Start Node: **38034** End Node: **39612**	Start Offset: **0** End Offset: **0**	☐ Exclude First Node ☐ Exclude Last Node
Route: **19E1873**	Start Node: **41162** End Node: **41164**	Start Offset: **0** End Offset: **0**	☐ Exclude First Node ☑ Exclude Last Node
Route: **19F1873**	Start Node: **38035** End Node: **41165**	Start Offset: **0** End Offset: **0**	☑ Exclude First Node ☐ Exclude Last Node
Route: **19G1873**	Start Node: **38034** End Node: **38038**	Start Offset: **0** End Offset: **0**	☑ Exclude First Node ☑ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
38034	1900553 - 2.15	Int of COLDBROOK RD RAMP CON	1	2	0	0	0	0	2	0.0	2.771	0.24 (Statewide Crash Rate: 0.03)	0.12	1.93
38035	1900553 - 2.22	Int of COLDBROOK RD RAMP ON FROM COLD BROOK RD	1	0	0	0	0	0	0	0.0	2.267	0.00 (Statewide Crash Rate: 0.03)	0.13	0.00
41164	1900553 - 2.26	Int of COLDBROOK RD RAMP E OFF TO COLD BROOK RD	1	1	0	0	0	0	1	0.0	2.560	0.13 (Statewide Crash Rate: 0.03)	0.13	1.03
39070	1900553 - 2.46	Int of COLDBROOK RD, OLD COLDBROOK RD	1	0	0	0	0	0	0	0.0	2.250	0.00 (Statewide Crash Rate: 0.12)	0.39	0.00
40692	1900553 - 2.69	Int of BRYER LN COLDBROOK RD	1	1	0	0	0	0	1	0.0	2.158	0.15 (Statewide Crash Rate: 0.12)	0.39	0.00
38889	1900553 - 3.17	Int of COLDBROOK RD, PAPER MILL RD	1	0	0	0	0	0	0	0.0	2.119	0.00 (Statewide Crash Rate: 0.12)	0.40	0.00
40302	1900553 - 3.35	Int of COLDBROOK RD LINDSEY WY	1	0	0	0	0	0	0	0.0	1.986	0.00 (Statewide Crash Rate: 0.12)	0.40	0.00
40299	1900553 - 3.59	Int of COLDBROOK RD, EMERSON DR	1	0	0	0	0	0	0	0.0	2.048	0.00 (Statewide Crash Rate: 0.12)	0.40	0.00
39611	1900553 - 3.71	Int of COLDBROOK RD RAMP CON	1	0	0	0	0	0	0	0.0	1.631	0.00 (Statewide Crash Rate: 0.12)	0.42	0.00
39612	1900553 - 3.77	Int of COLD BROOK RD COLDBROOK RD US HWY 202	9	9	0	0	0	2	7	22.2	4.642	0.65 (Statewide Crash Rate: 0.66)	1.18	0.00
41162	19E1873 - 0	Int of I 95 RAMP E OFF TO COLD BROOK RD	1	0	0	0	0	0	0	0.0	4.413	0.00 (Statewide Crash Rate: 0.03)	0.11	0.00
38038	19F1873 - 0.08	Int of RAMP CON RAMP ON FROM COLD BROOK RD	1	1	0	0	0	1	0	100.0	1.680	0.20 (Statewide Crash Rate: 0.03)	0.13	1.53
41165	19F1873 - 0.31	Int of I 95 RAMP ON FROM COLD BROOK RD	1	2	0	0	0	0	2	0.0	5.909	0.11 (Statewide Crash Rate: 0.03)	0.11	1.05
		NODE TOTALS:		16	0	0	0	3	13	18.8	36.434	0.15	0.23	0.64

Study Years: 3.00

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
38034	38035	3110617	0 - 0.07	1900553 - 2.15	0.07	1	0	0	0	0	0	0	0.0	0.00146	0.00	551.91	0.00
Int of COLDBROOK RD RAMP CON				RD INV 19 00553											Statewide Crash Rate: 165.41		
38035	41164	3110619	0 - 0.04	1900553 - 2.22	0.04	1	0	0	0	0	0	0	0.0	0.00098	0.00	606.37	0.00
Int of COLDBROOK RD RAMP ON FROM COLD BROOK RD				RD INV 19 00553											Statewide Crash Rate: 165.41		
39070	41164	3124219	0 - 0.20	1900553 - 2.26	0.20	1	3	0	0	0	0	3	0.0	0.00461	217.09	411.06	0.00
Int of COLDBROOK RD, OLD COLDBROOK RD				RD INV 19 00553											Statewide Crash Rate: 165.41		
39070	40692	3110833	0 - 0.23	1900553 - 2.46	0.23	1	0	0	0	0	0	0	0.0	0.00502	0.00	402.16	0.00
Int of COLDBROOK RD, OLD COLDBROOK RD				RD INV 19 00553											Statewide Crash Rate: 165.41		
38889	40692	3110751	0 - 0.48	1900553 - 2.69	0.48	1	2	0	0	0	0	2	0.0	0.01016	65.60	338.75	0.00
Int of COLDBROOK RD, PAPER MILL RD				RD INV 19 00553											Statewide Crash Rate: 165.41		
38889	40302	3110750	0 - 0.18	1900553 - 3.17	0.18	1	1	0	0	0	1	0	100.0	0.00360	92.57	437.88	0.00
Int of COLDBROOK RD, PAPER MILL RD				RD INV 19 00553											Statewide Crash Rate: 165.41		
40299	40302	3111224	0 - 0.24	1900553 - 3.35	0.24	1	1	0	0	1	0	0	100.0	0.00466	71.51	409.82	0.00
Int of COLDBROOK RD, EMERSON DR				RD INV 19 00553											Statewide Crash Rate: 165.41		
39611	40299	3110964	0 - 0.12	1900553 - 3.59	0.12	1	0	0	0	0	0	0	0.0	0.00256	0.00	478.45	0.00
Int of COLDBROOK RD RAMP CON				RD INV 19 00553											Statewide Crash Rate: 165.41		
39611	39612	3132117	0 - 0.06	1900553 - 3.71	0.06	1	0	0	0	0	0	0	0.0	0.00068	0.00	654.15	0.00
Int of COLDBROOK RD RAMP CON				RD INV 19 00553											Statewide Crash Rate: 165.41		
41162	41164	3111304	0 - 0.32	19E1873 - 0	0.32	1	1	0	0	0	0	1	0.0	0.00059	568.50	264.06	2.15
Int of I 95 RAMP E OFF TO COLD BROOK RD				RD INV 19 E1873											Statewide Crash Rate: 82.55		
38035	38038	3110618	0 - 0.08	19F1873 - 0	0.08	1	0	0	0	0	0	0	0.0	0.00029	0.00	180.12	0.00
Int of COLDBROOK RD RAMP ON FROM COLD BROOK RD				RD INV 19 F1873											Statewide Crash Rate: 82.55		
38038	41165	3110622	0 - 0.23	19F1873 - 0.08	0.23	1	2	0	0	0	0	2	0.0	0.00386	172.56	208.65	0.00
Int of RAMP CON RAMP ON FROM COLD BROOK RD				RD INV 19 F1873											Statewide Crash Rate: 82.55		
38034	38038	3124204	0 - 0.04	19G1873 - 0	0.04	1	0	0	0	0	0	0	0.0	0.00053	0.00	258.55	0.00
Int of COLDBROOK RD RAMP CON				RD INV 19 G1873											Statewide Crash Rate: 82.55		
Study Years: 3.00				**Section Totals:**	2.29		10	0	0	1	1	8	20.0	0.03900	85.48	239.95	0.36
				Grand Totals:	2.29		26	0	0	1	4	21	19.2	0.03900	222.24	273.26	0.81

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
38034	38035	3110617	0 - 0.07	1900553 - 2.15	0	0	0	0	0	0				
38035	41164	3110619	0 - 0.04	1900553 - 2.22	0	0	0	0	0	0				
39070	41164	3124219	0 - 0.20	1900553 - 2.26	3	0	0	0	0	3	2014-4916	02/09/2014	2.30	PD
											2014-25819	09/24/2014	2.36	PD
											2014-6614	02/20/2014	2.42	PD
39070	40692	3110833	0 - 0.23	1900553 - 2.46	0	0	0	0	0	0				
38889	40692	3110751	0 - 0.48	1900553 - 2.69	2	0	0	0	0	2	2014-26560	10/01/2014	2.99	PD
											2014-31104	11/10/2014	3.13	PD
38889	40302	3110750	0 - 0.18	1900553 - 3.17	1	0	0	0	1	0	2013-20271	08/12/2013	3.23	C
40299	40302	3111224	0 - 0.24	1900553 - 3.35	1	0	0	1	0	0	2013-12961	05/16/2013	3.47	B
39611	40299	3110964	0 - 0.12	1900553 - 3.59	0	0	0	0	0	0				
39611	39612	3132117	0 - 0.06	1900553 - 3.71	0	0	0	0	0	0				
41162	41164	3111304	0 - 0.32	19E1873 - 0	1	0	0	0	0	1	2012-23320	03/03/2012	0.15	PD
38035	38038	3110618	0 - 0.08	19F1873 - 0	0	0	0	0	0	0				
38038	41165	3110622	0 - 0.23	19F1873 - 0.08	2	0	0	0	0	2	2013-5784	03/01/2013	0.10	PD
											2014-8490	03/14/2014	0.26	PD
38034	38038	3124204	0 - 0.04	19G1873 - 0	0	0	0	0	0	0				
				Totals:	10	0	0	1	1	8				

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												PM													
	Hour of Day																									
Day Of Week	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**Un**	**Tot**
SUNDAY	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	3
MONDAY	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	3
TUESDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
WEDNESDAY	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	1	1	0	0	0	0	0	0	6
THURSDAY	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	4
FRIDAY	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	1	0	0	5
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	0	4
Totals	0	0	1	1	0	0	0	0	1	1	3	2	1	1	3	3	2	2	1	1	0	0	2	1	0	**26**

Vehicle Counts by Type

Unit Type	Total
1-Passenger Car	28
2-(Sport) Utility Vehicle	4
3-Passenger Van	0
4-Cargo Van (10K lbs or Less)	1
5-Pickup	5
6-Motor Home	0
7-School Bus	0
8-Transit Bus	0
9-Motor Coach	0
10-Other Bus	0
11-Motorcycle	0
12-Moped	0
13-Low Speed Vehicle	0
14-Autocycle	0
15-Experimental	0
16-Other Light Trucks (10,000 lbs or Less)	0
17-Medium/Heavy Trucks (More than 10,000 lbs)	4
18-ATV - (4 wheel)	0
20-ATV - (2 wheel)	0
21-Snowmobile	0
22-Pedestrian	0
23-Bicyclist	0
24-Witness	5
25-Other	1
Total	**48**

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	13	10	0	0	0	0	23
Ran Off Roadway	1	0	0	0	0	0	1
Failed to Yield Right-of-Way	3	1	0	0	0	0	4
Ran Red Light	3	0	0	0	0	0	3
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	2	1	0	0	0	0	3
Improper Turn	0	0	0	0	0	0	0
Improper Backing	0	0	0	0	0	0	0
Improper Passing	2	1	0	0	0	0	3
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	0	3	0	0	0	0	3
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	1	0	0	0	0	0	1
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	1	1	0	0	0	0	2
Unknown	0	0	0	0	0	0	0
Total	26	17	0	0	0	0	43

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	26	16	0	0	0	0	42
Physically Impaired or Handicapped	0	1	0	0	0	0	1
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total	26	17	0	0	0	0	43

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	5	0	0	0	0	5
20-24	8	0	0	0	0	8
25-29	3	0	0	0	0	3
30-39	11	0	0	0	0	11
40-49	5	0	0	0	0	5
50-59	5	0	0	0	0	5
60-69	4	0	0	0	0	4
70-79	1	0	0	0	0	1
80-Over	1	0	0	0	0	1
Unknown	0	0	0	0	0	0
Total	43	0	0	0	0	43

Crash Summary II - Characteristics

Most Harmful Event

Most Harmful Event	Total
1-Overturn / Rollover	1
2-Fire / Explosion	0
3-Immersion	0
4-Jackknife	0
5-Cargo / Equipment Loss Or Shift	0
6-Fell / Jumped from Motor Vehicle	0
7-Thrown or Falling Object	0
8-Other Non-Collision	0
9-Pedestrian	0
10-Pedalcycle	0
11-Railway Vehicle - Train, Engine	0
12-Animal	2
13-Motor Vehicle in Transport	36
14-Parked Motor Vehicle	0
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0
16-Work Zone / Maintenance Equipment	0
17-Other Non-Fixed Object	0
18-Impact Attenuator / Crash Cushion	1
19-Bridge Overhead Structure	0
20-Bridge Pier or Support	0
21-Bridge Rail	0
22-Cable Barrier	0
23-Culvert	0
24-Curb	0
25-Ditch	0
26-Embankment	0
27-Guardrail Face	1
28-Guardrail End	0
29-Concrete Traffic Barrier	0
30-Other Traffic Barrier	0
31-Tree (Standing)	1
32-Utility Pole / Light Support	0
33-Traffic Sign Support	1
34-Traffic Signal Support	0
35-Fence	0
36-Mailbox	0
37-Other Post Pole or Support	0
38-Other Fixed Object (wall, building, tunnel, etc.)	0
39-Unknown	0
40-Gate or Cable	0
41-Pressure Ridge	0
Total	**43**

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	9
2-Traffic Signals (Flashing)	0
3-Advisory/Warning Sign	0
4-Stop Signs - All Approaches	0
5-Stop Signs - Other	1
6-Yield Sign	2
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	14
14-Other	0
Total	**26**

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	1	1
C	4	4
PD	21	0
Total	**26**	**5**

Road Character

Road Grade	Total
1-Level	20
2-On Grade	6
3-Top of Hill	0
4-Bottom of Hill	0
5-Other	0
Total	**26**

Light

Light Condition	Total
1-Daylight	19
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	1
5-Dark - Not Lighted	6
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	**26**

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2012	2013	2014	Total
JANUARY	0	2	1	3
FEBRUARY	0	0	2	2
MARCH	1	3	3	7
APRIL	0	0	0	0
MAY	1	1	0	2
JUNE	1	0	1	2
JULY	1	0	0	1
AUGUST	1	2	0	3
SEPTEMBER	1	1	1	3
OCTOBER	0	0	1	1
NOVEMBER	0	0	1	1
DECEMBER	0	1	0	1
Total	**6**	**10**	**10**	**26**

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	1	0	2	2	0	1	0	3	0	0	0	0	0	9
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	1	6	0	0	0	0	0	0	0	0	0	7
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	2	0	0	0	0	0	0	3	0	0	0	0	0	5
All Other Animal	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	1	0	0	0	0	1	0	0	0	0	0	0	0	2
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	0	3	9	0	2	0	6	0	0	0	0	0	26

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	2	0	0	0	0	0	0	0	0	0	1	3
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	13	1	0	0	0	0	0	0	0	0	0	14
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	1	0	0	0	0	0	0	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	1	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	1	1	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	1	0	0	1	2
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	1	0	0	0	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**17**	**2**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**1**	**0**	**26**

Definitions of Injury Codes

(K) = Fatal injury. A fatal injury is any injury that results in death. Within 30 days of the Crash.

(A) = Incapacitating injury. An Incapacitating injury is any injury, other than a fatal injury, which prevents the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred.

(B) = Nonincapacitating injury. A Nonincapacitating injury is any injury, other than fatal injury or an incapacitating injury, which is evident to observers at the scene of the crash in which the injury occurred.

(C) = Possible injury. A possible injury is any injury reported or claimed which is not a fatal injury, incapacitating injury or nonincapacitating injury.

(PDO) = Property Damage only. Damage is harm to property that reduces the monetary value of that property. No injuries.

Definition of Time Codes

00 = 12 – 12:59 AM	12 = 12 – 12:59 PM
01 = 1 – 1:59 AM	13 = 1 – 1:59 PM
02 = 2 – 2:59 AM	14 = 2 – 2:59 PM
03 = 3 – 3:59 AM	15 = 3 – 3:59 PM
04 = 4 – 4:59 AM	16 = 4 – 4:59 PM
05 = 5 – 5:59 AM	17 = 5 – 5:59 PM
06 = 6 – 6:59 AM	18 = 6 – 6:59 PM
07 = 7 – 7:59 AM	19 = 7 – 7:59 PM
08 = 8 – 8:59 AM	20 = 8 – 8:59 PM
09 = 9 – 9:59 AM	21 = 9 – 9:59 PM
10 = 10 – 10:59 AM	22 = 10 – 10:59 PM
11 = 11 – 11:59 AM	23 = 11 – 11:59 PM


Hampden
I 95 SB
I 95
41162
41164
38035
38034
41165
38037
OLD COLDBROOK RD
40692
40693
COLDBROOK RD
38889
PAPER MILL RD
40302
SIDNEY BLVD
40295
US HWY 202
40682
40683
62702
40300
40677
69002
37373
37374
39611
39612
38888
CHARLES ST
WILLIAMS ST
GEORGE ST

Description of Abbreviations and Headings used on the Crash Summary Reports

(1)

U/R – Urban or Rural code indicated by a number

1 = Rural

2 = Urban Area (over 6,000 population in compact area)

3 = Rural – Urban (over 1,000 but less than 6,000 population in compact area)

4 = Federal Urban-State Rural

5 = Federal Rural-State Urban

6 = Federal Urban-State Rural-Urban

9 = Signalized Intersection

(2)

Type Injury/Severity

K = Killed

A = Incapacitating Injury

B = Non-Incapacitating Injury

C = Possible Injury

PD = Property Damage Only

(3)

$$\text{Annual MEV} = \frac{\text{Annual Average Daily Traffic for Each Leg of the Intersection} \times 365 \times 0.5}{10^6}$$

(4)

$$\text{Annual HMVMT} = \frac{\text{Annual Average Daily Traffic} \times \text{Section Length} \times 365\ \text{Days}}{10^8}$$

(5)

$$\text{Element Crash Rate} = \frac{\text{Number of Crashes}}{\text{Annual Hundred Million Vehicle Miles} \times \text{Study Period in Years}}$$ **(Actual rate)**

(6)

$$\text{Node Crash Rate} = \frac{\text{Number of Crashes}}{\text{Annual Million Entering Vehicles} \times \text{Study Period in Years}}$$ **(Actual rate)**

(7)

$$\text{Critical Crash Rate} = \text{Statewide Average} + \text{Confidence Level} \times \sqrt{\frac{\text{Statewide Average}}{\text{Study Period Years} \times \text{Annual HMVM}}} - \frac{1}{2\,(\text{Study Period Years}) \times \text{Annual HMVM}}$$

(Expected Rate)

(8)

$$\text{Critical Rate Factor} = \frac{\text{Crash Rate}}{\text{Critical Rate}}$$ (Number of times the Crash Rate exceeds the Critical Rate)

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☑ Section Detail ☑ Crash Summary II ☐ 1320 Included ☐ 1320 & Driver Report Included

REPORT DESCRIPTION

Rte 2 from Penobscot Valley Ave to Main St in Lincoln ← **(Location)**

REPORT PARAMETERS

Year 2006 Start Month 1 through Year 2008 End Month 12 ← **(Study Period)**

Route: 0002X Start Node: 41119 End Node: 37679 Start Offset: 0 End Offset: 0 ☑ Exclude First Node ☑ Exclude Last Node

4/1/2010 9:40:41 AM

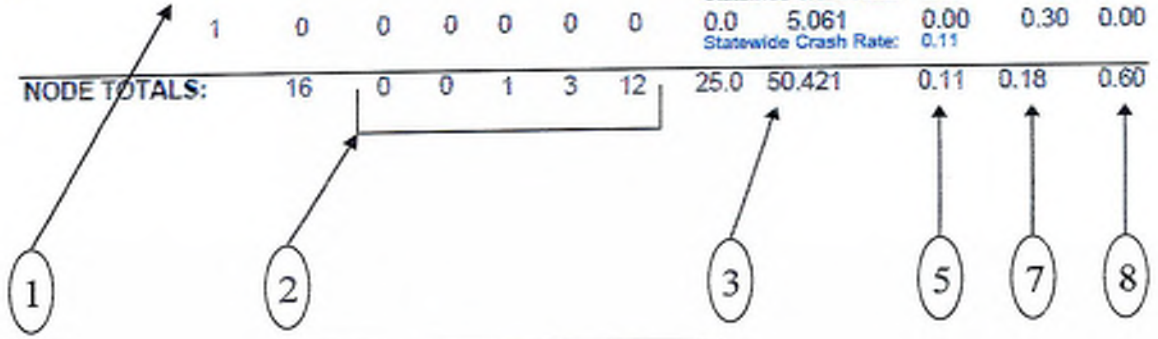
Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
39928	0002X - 190.09	Int of LIN CEMETARY RD, US 2	1	1	0	0	0	0	1	0.0	3.723	0.09	0.32	0.00
										Statewide Crash Rate:		0.11		
40770	0002X - 190.17	Int of ENT SHOP & SAVE, MILL ST, US 2	1	8	0	0	1	3	4	50.0	4.608	0.58	0.30	1.91
										Statewide Crash Rate:		0.11		
39929	0002X - 190.27	Int of PARK ST, US 2	1	0	0	0	0	0	0	0.0	4.750	0.00	0.30	0.00
										Statewide Crash Rate:		0.11		
39930	0002X - 190.49	Int of KATAHDIN AV, US 2	1	3	0	0	0	0	3	0.0	4.900	0.20	0.30	0.00
										Statewide Crash Rate:		0.11		
40128	0002X - 190.52	Int of SPRING ST, US 2	1	0	0	0	0	0	0	0.0	2.407	0.00	0.36	0.00
										Statewide Crash Rate:		0.11		
39931	0002X - 190.53	Non-Int US 2	1	0	0	0	0	0	0	0.0	4.750	0.00	0.30	0.00
										Statewide Crash Rate:		0.11		
39932	0002X - 190.56	Int of LIN VOCATIONAL, LINDSAY ST, US 2	1	1	0	0	0	0	1	0.0	4.795	0.07	0.30	0.00
										Statewide Crash Rate:		0.11		
40776	0002X - 190.58	Int of LIN VOCATIONAL, US 2	1	0	0	0	0	0	0	0.0	4.705	0.00	0.30	0.00
										Statewide Crash Rate:		0.11		
39933	0002X - 190.61	Int of PERRY ST, US 2	1	0	0	0	0	0	0	0.0	4.687	0.00	0.30	0.00
										Statewide Crash Rate:		0.11		
39934	0002X - 190.69	Int of BALLANTINE CT, FLEMING ST, US 2	1	3	0	0	0	0	3	0.0	6.035	0.17	0.28	0.00
										Statewide Crash Rate:		0.11		
41852	0002X - 190.71	Int of BROADWAY WB, US 2	1	0	0	0	0	0	0	0.0	5.061	0.00	0.30	0.00
										Statewide Crash Rate:		0.11		
NODE TOTALS:				16	0	0	1	3	12	25.0	50.421	0.11	0.18	0.60

Study Years: 3.00



Type Injury/Severity

K = Killed

A = Incapacitating Injury

B = Non-Incapacitating Injury

C = Possible Injury

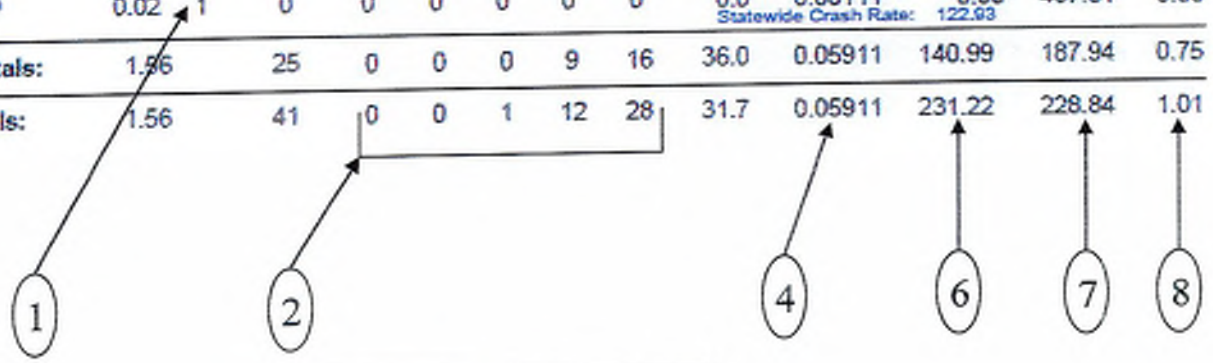
PD = Property Damage Only

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
39928	41119	220364	0 - 0.91	0002X - 189.18 US 2	0.91	1	13	0	0	0	3	10	23.1	0.02918	148.49	213.75	0.00
Int of LIN CEMETARY RD, US 2													Statewide Crash Rate:		122.93		
39928	40770	220363	0 - 0.08	0002X - 190.09 US 2	0.08	1	0	0	0	0	0	0	0.0	0.00339	0.00	357.02	0.00
Int of LIN CEMETARY RD, US 2													Statewide Crash Rate:		122.93		
39929	40770	220366	0 - 0.10	0002X - 190.17 US 2	0.10	1	4	0	0	0	2	2	50.0	0.00453	294.36	331.14	0.00
Int of PARK ST, US 2													Statewide Crash Rate:		122.93		
39929	39930	220365	0 - 0.22	0002X - 190.27 US 2	0.22	1	5	0	0	0	3	2	60.0	0.01060	157.17	267.34	0.00
Int of PARK ST, US 2													Statewide Crash Rate:		122.93		
39930	40128	220368	0 - 0.03	0002X - 190.49 US 2	0.03	1	0	0	0	0	0	0	0.0	0.00143	0.00	442.30	0.00
Int of KATAHDIN AV, US 2													Statewide Crash Rate:		122.93		
39931	40128	220370	0 - 0.01	0002X - 190.52 US 2	0.01	1	0	0	0	0	0	0	0.0	0.00048	0.00	528.52	0.00
Non-Int US 2													Statewide Crash Rate:		122.93		
39931	39932	220369	0 - 0.03	0002X - 190.53 US 2	0.03	1	0	0	0	0	0	0	0.0	0.00142	0.00	443.29	0.00
Non-Int US 2													Statewide Crash Rate:		122.93		
39932	40776	220372	0 - 0.02	0002X - 190.56 US 2	0.02	1	0	0	0	0	0	0	0.0	0.00094	0.00	483.85	0.00
Int of LIN VOCATIONAL, LINDSAY ST, US 2													Statewide Crash Rate:		122.93		
39933	40776	220374	0 - 0.03	0002X - 190.58 US 2	0.03	1	1	0	0	0	0	1	0.0	0.00139	239.83	445.32	0.00
Int of PERRY ST, US 2													Statewide Crash Rate:		122.93		
39933	39934	220373	0 - 0.08	0002X - 190.61 US 2	0.08	1	0	0	0	0	0	0	0.0	0.00366	0.00	349.93	0.00
Int of PERRY ST, US 2													Statewide Crash Rate:		122.93		
37679	41852	217116	0 - 0.03	0002X - 190.68 US 2	0.03	1	2	0	0	0	1	1	50.0	0.00098	682.24	479.88	1.42
Int of HIGH ST, US 2													Statewide Crash Rate:		122.93		
39934	41852	220375	0 - 0.02	0002X - 190.69 US 2	0.02	1	0	0	0	0	0	0	0.0	0.00111	0.00	467.81	0.00
Int of BALLANTINE CT, FLEMING ST, US 2													Statewide Crash Rate:		122.93		
Study Years: 3.00				Section Totals:	1.56		25	0	0	0	9	16	36.0	0.05911	140.99	187.94	0.75
				Grand Totals:	1.56		41	0	0	1	12	28	31.7	0.05911	231.22	228.84	1.01



Type Injury/Severity

K = Killed

A = Incapacitating Injury

B = Non-Incapacitating Injury

C = Possible Injury

PD = Property Damage Only

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
39928	41119	220364	0 - 0.91	0002X - 189.18	13	0	0	0	3	10	2008-4649	01/31/2008	189.38	PD
											2007-24687	07/23/2007	189.48	C
											2007-12785	05/09/2007	189.49	PD
											2008-27798	10/02/2008	189.49	PD
											2008-20036	07/07/2008	189.58	PD
											2006-32774	12/26/2006	189.59	PD
											2008-390	01/03/2008	189.69	PD
											2006-22174	09/16/2006	189.79	PD
											2006-19996	08/08/2006	189.89	C
											2006-12770	05/30/2006	189.89	PD
											2007-36193	12/14/2007	189.89	PD
											2008-34136	12/08/2008	189.93	PD
											2006-10987	05/09/2006	189.99	C
39928	40770	220363	0 - 0.08	0002X - 190.09	0	0	0	0	0	0				
39929	40770	220366	0 - 0.10	0002X - 190.17	4	0	0	0	2	2	2007-24692	07/30/2007	190.18	C
											2008-20039	07/16/2008	190.18	PD
											2008-20027	05/12/2008	190.18	PD
											2007-31998	10/22/2007	190.21	C
39929	39930	220365	0 - 0.22	0002X - 190.27	5	0	0	0	3	2	2008-5760	03/01/2008	190.28	C
											2006-31431	12/08/2006	190.37	C
											2006-16728	07/05/2006	190.37	C
											2007-24688	07/24/2007	190.37	PD
											2007-15738	06/08/2007	190.38	PD
39930	40128	220368	0 - 0.03	0002X - 190.49	0	0	0	0	0	0				
39931	40128	220370	0 - 0.01	0002X - 190.52	0	0	0	0	0	0				
39931	39932	220369	0 - 0.03	0002X - 190.53	0	0	0	0	0	0				
39932	40776	220372	0 - 0.02	0002X - 190.56	0	0	0	0	0	0				
39933	40776	220374	0 - 0.03	0002X - 190.58	1	0	0	0	0	1	2008-28769	02/14/2008	190.59	PD
39933	39934	220373	0 - 0.08	0002X - 190.61	0	0	0	0	0	0				
39934	41852	220375	0 - 0.02	0002X - 190.69	0	0	0	0	0	0				
37679	41852	217116	0 - 0.03	0002X - 190.71	2	0	0	0	1	1	2007-32024	12/04/2007	190.72	PD
											2008-34141	12/18/2008	190.73	C
				Totals:	25	0	0	0	9	16				

Section Details – Lists the number of crashes by route mile point.

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												Hour of Day	PM												
Day Of Week	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MONDAY	0	0	0	0	0	0	0	0	1	0	0	3	0	0	1	3	1	0	0	0	0	0	0	0	0	9
TUESDAY	0	0	0	0	0	0	1	1	0	0	1	1	1	1	0	3	0	1	0	0	0	0	0	0	0	10
WEDNESDAY	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	5
THURSDAY	0	0	0	0	0	0	0	1	0	2	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	8
FRIDAY	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	5
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	4
Totals	0	0	0	0	0	0	2	2	1	3	2	6	2	3	3	9	3	5	0	0	0	0	0	0	0	41

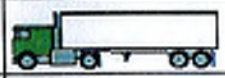
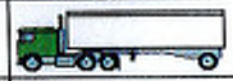
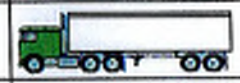
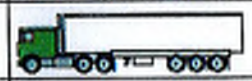
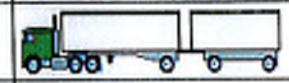
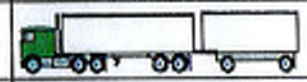
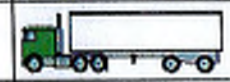
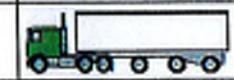
Crashes by Year and Month

Month	2006	2007	2008	Total
JANUARY	0	1	2	3
FEBRUARY	0	1	2	3
MARCH	0	0	2	2
APRIL	0	1	0	1
MAY	3	2	1	6
JUNE	1	1	0	2
JULY	1	3	2	6
AUGUST	1	0	2	3
SEPTEMBER	1	0	0	1
OCTOBER	1	1	2	4
NOVEMBER	0	1	1	2
DECEMBER	2	3	3	8
Total	10	14	17	41

Vehicle Counts by Type

Unit Type	Total
1-2 Door	9
2-4 Door	33
3-Convertible	0
4-Station Wagon	2
5-Van	2
6-Pickup Truck	18
7-SUV	14
10-Truck Tractor Only (Bobtail)	0
12-School Bus	0
13-Motor Home	0
14-Motorcycle	0
15-Moped	0
16-Motor Bike	0
17-Bicycle	1
18-Snowmobile	0
20-2 Axle Single Unit with Dual Tires	1
21-2 Axle Tractor with Single Axle Semi	0
22-2 Axle Tractor with Tandem Axle Semi	0
25-2 Axle Tractor with Single Axle Semi & 2 Axle Trailer	0
30-3 Axle Single Unit	0
31-3 Axle Tractor with Single Axle Semi	0
32-3 Axle Tractor with Tandem Axle Semi	1
33-3 Axle Tractor with Tridem Axle Semi	2
35-3 Axle Tractor with Single Axle Semi & 2 Axle Trailer	0
36-3 Axle Tractor with Tandem Axle Semi & 2 Axle Trailer	0
37-5 Axle Semi; Split Trailer Tandem	0
38-6 Axle Semi; Split Trailer Tandem with Center Axle	0
39-6 Axle; Standard Trailer Tandem with Center Axle	0
40-4 Axle Single Unit	0
42-4 Axle Tractor with Tandem Axle Semi	0
50-Any Other Axle Configuration	0
60-Other Unit	0
70-ATV	0
81-2 Axle Bus	0
82-3 Axle Bus	0
98-Farm Vehicles / Tractors	0
99-Unknown	0
Total	83

For a more detailed description of truck axle configurations see next page.

VEHICLE CODE	AXLE CONFIGURATION	DESCRIPTION
10		TRUCK TRACKTOR ONLY (BOB TAIL)
20		2 AXLE SINGLE UNIT WITH DUAL TIRES
21		2 AXLE TRACTOR WITH SINGLE AXLE SEMI
22		2 AXLE TRACTOR WITH TANDEM AXLE SEMI
25		2 AXLE TRACTOR WITH SINGLE AXLE SEMI AND 2 AXLE TRAILER
30		3 AXLE SINGLE UNIT
31		3 AXLE TRACTOR WITH SINGLE AXLE SEMI
32		3 AXLE TRACTOR WITH TANDEM AXLE SEMI
33		3 AXLE TRACTOR WITH TRIDEM AXLE SEMI
35		3 AXLE TRACTOR WITH SINGLE AXLE SEMI AND 2 AXLE TRAILER
36		3 AXLE TRACTOR WITH TANDEM AXLE SEMI AND 2 AXLE TRAILER
37		5 AXLE SEMI; SPLIT TRAILER TANDEM
38		6 AXLE SEMI; SPLIT TRAILER TANDEM WITH CENTER AXLE
39		6 AXLE; STANDARD TRAILER TANDEM WITH CENTER AXLE
40		4 AXLE SINGLE UNIT
42		4 AXLE TRACTOR WITH TANDEM AXLE SEMI
50	ANY OTHER AXLE CONFIGURATION	ANY TRUCK NOT DESCRIBED ABOVE
81		2 AXLE BUS
82		3 AXLE BUS

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Apparent Contributing Factor And Driver

Apparent Contributing Factor	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Improper Action	1	37	1	0	0	0	39
Failure to Yield Right of Way	12	0	0	0	0	0	12
Illegal Unsafe Speed	3	0	0	0	0	0	3
Following Too Close	11	0	0	0	0	0	11
Disregard Traffic Control Device	0	0	0	0	0	0	0
Driving Left of Center Not Passing	0	0	0	0	0	0	0
Improper Passing, Overtaking	0	0	0	0	0	0	0
Improper Unsafe Lane Change	2	0	0	0	0	0	2
Improper Parking Start, Stop	0	0	0	0	0	0	0
Improper Turn	0	0	0	0	0	0	0
Unsafe Backing	2	0	0	0	0	0	2
No Signal or Improper Signal	0	0	0	0	0	0	0
Impeding Traffic	0	0	0	0	0	0	0
Driver Inattention, Distraction	7	0	0	0	0	0	7
Driver Inexperience	0	0	0	0	0	0	0
Pedestrian Violation Error	0	0	0	0	0	0	0
Physical Impairment	0	0	0	0	0	0	0
Vision Obscured, Windshield Glass	0	0	0	0	0	0	0
Vision Obscured, Sun, Headlights	1	0	0	0	0	0	1
Other Vision Obscurement	0	0	0	0	0	0	0
Other Human Violation Factor	0	0	0	0	0	0	0
Hit and Run	0	0	0	0	0	0	0
Defective Brakes	0	0	0	0	0	0	0
Defective Tire, Tire Failure	0	0	0	0	0	0	0
Defective Lights	0	0	0	0	0	0	0
Defective Suspension	0	0	0	0	0	0	0
Defective Steering	0	0	0	0	0	0	0
Other Vehicle Defect or Factor	1	1	0	0	0	0	2
Unknown	1	3	0	0	0	0	4
Total	41	41	1	0	0	0	83

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Normal	40	41	1	0	0	0	82
Under the Influence	0	0	0	0	0	0	0
Had Been Drinking	0	0	0	0	0	0	0
Had Been Using Drugs	0	0	0	0	0	0	0
Asleep	0	0	0	0	0	0	0
Fatigued	0	0	0	0	0	0	0
Ill	0	0	0	0	0	0	0
Handicapped	1	0	0	0	0	0	1
Other	0	0	0	0	0	0	0
Total	41	41	1	0	0	0	83

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	10	0	0	0	0	10
20-24	9	0	0	0	0	9
25-29	5	0	0	0	0	5
30-39	8	0	0	0	0	8
40-49	11	0	0	0	0	11
50-59	15	0	0	0	0	15
60-69	10	0	0	0	0	10
70-79	8	0	0	0	0	8
80-Over	6	0	0	0	0	6
Unknown	0	1	0	0	0	1
Total	82	1	0	0	0	83

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Fixed Object Struck

Fixed Object Struck	Total
1-Construction, Barricades Equipment, etc.	0
2-Traffic Signal	0
3-R.R. Crossing Device	0
4-Light Pole	0
5-Utility Pole (Tel. Electrical)	0
6-Sign Structure Post	0
7-Mail Boxes or Posts	0
8-Other Poles, posts or supports	0
9-Fire Hydrant/Parking Meter	0
10-Tree or Shrubbery	0
11-Crash Cushion	0
12-Median Safety Barrier	0
13-Bridge Piers (including protective guard rails)	0
14-Other Guardrails	0
15-Fencing (not median barrier)	0
16-Culvert Headwall	0
17-Embankment, Ditch, Curb	0
18-Building, Wall	0
19-Rock Outcrops or Ledge	0
20-Other	0
21-Gate or Cable	0
22-Pressure Ridge	0
Total	0

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	10
2-Traffic Flashing	0
3-Overhead Flashers	0
4-Stop Signs - All Approachee	0
5-Stop Signs - Other	6
6-Yield Sign	0
7-Curve Warning Sign	0
8-Officer, Flagman, School Patrol	1
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	0
13-None	24
14-Other	0
Total	41

Road Character

Road Character	Total
1-Level Straight	34
2-Level Curved	2
3-On Grade Straight	4
4-On Grade Curved	0
5-Top of Hill Straight	0
6-Top of Hill Curved	1
7-Bottom of Hill Straight	0
8-Bottom of Hill Curved	0
9-Other	0
Total	41

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	1	1
C	12	15
PD	28	0
Total	41	16

Light

Light	Total
1-Dawn (Morning)	1
2-Daylight	37
3-Dusk (Evening)	0
4-Dark (Street Lights On)	3
5-Dark (No Street Lights)	0
6-Dark (Street Lights Off)	0
7-Other	0
Total	41

2

Type Injury/Severity

K = Killed

A = Incapacitating Injury

B = Non-Incapacitating Injury

C = Possible Injury

PD = Property Damage Only

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five Leg Intersection	Driveways	Bridges	Interchanges	Other	Total
Object in Road	0	0	0	0	0	0	0	0	0	0
Rear End / Sideswipe	4	1	5	7	0	9	0	0	0	26
Head-on / Sideswipe	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	1	3	0	10	0	0	0	14
Pedestrians	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0
Ran Off Road	0	0	0	0	0	0	0	0	0	0
All Other Animal	0	0	0	0	0	0	0	0	0	0
Bike	1	0	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0
Rock Thrown	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0
Total	5	1	6	10	0	19	0	0	0	41

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Debris	Dry	Ice, Packed Snow, Not Sanded	Ice, Packed Snow, Sanded	Muddy	Oily	Other	Snow Slush, Not Sanded	Snow, Slush, Sanded	Wet	Total
Blowing Sand or Dust											
Dark (No Street Lights)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights Off)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights On)	0	0	0	0	0	0	0	0	0	0	0
Dawn (Morning)	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0
Dusk (Evening)	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Clear											
Dark (No Street Lights)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights Off)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights On)	0	0	0	0	0	0	0	0	0	1	1
Dawn (Morning)	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	25	0	2	0	0	0	0	1	2	30
Dusk (Evening)	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Cloudy											
Dark (No Street Lights)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights Off)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights On)	0	0	0	0	0	0	0	0	0	2	2
Dawn (Morning)	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	2	0	0	0	0	0	0	0	1	3
Dusk (Evening)	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Fog, Smog, Smoke											
Dark (No Street Lights)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights Off)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights On)	0	0	0	0	0	0	0	0	0	0	0
Dawn (Morning)	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0
Dusk (Evening)	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Debris	Dry	Ice, Packed Snow, Not Sanded	Ice, Packed Snow, Sanded	Muddy	Oily	Other	Snow Slush, Not Sanded	Snow, Slush, Sanded	Wet	Total
Other											
Dark (No Street Lights)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights Off)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights On)	0	0	0	0	0	0	0	0	0	0	0
Dawn (Morning)	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0
Dusk (Evening)	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Rain											
Dark (No Street Lights)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights Off)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights On)	0	0	0	0	0	0	0	0	0	0	0
Dawn (Morning)	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	2	2
Dusk (Evening)	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Severe Cross Winds											
Dark (No Street Lights)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights Off)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights On)	0	0	0	0	0	0	0	0	0	0	0
Dawn (Morning)	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0
Dusk (Evening)	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Sleet, Hail, Freezing Rain											
Dark (No Street Lights)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights Off)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights On)	0	0	0	0	0	0	0	0	0	0	0
Dawn (Morning)	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	1	1
Dusk (Evening)	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Debris	Dry	Ice, Packed Snow, Not Sanded	Ice, Packed Snow, Sanded	Muddy	Oily	Other	Snow Slush, Not Sanded	Snow, Slush, Sanded	Wet	Total
Snow											
Dark (No Street Lights)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights Off)	0	0	0	0	0	0	0	0	0	0	0
Dark (Street Lights On)	0	0	0	0	0	0	0	0	0	0	0
Dawn (Morning)	0	0	0	0	0	0	0	1	0	0	1
Daylight	0	0	0	0	0	0	0	0	1	0	1
Dusk (Evening)	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	27	0	2	0	0	0	1	2	9	41

2014-9796

STATE OF MAINE CRASH REPORT

FIRST PAGE

F I R S T

Reporting Agency	Report Number	Crash Date	Crash Time	At Scene Date	At Scene Time
ME0100700	14H-00859	3/15/2014	15:09	3/15/2014	15:10

City or Town	Street or Highway	Int of COLD BROOK RD, COLDBROOK RD, US HWY 202	Off Road
Hampden	COLD BROOK RD		☐

Direction FROM Nearest Intersection to Crash Site	Distance From Nearest Inter.	Latitude	Longitude
☑ At Intersection ☐ North ☐ South ☐ East ☐ West	☐ Feet ☐ Miles	44.754270	-68.839410

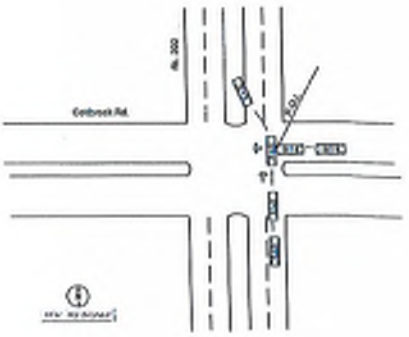
Node 1	Node 2	Measurement Node	Distance to Scene	Posted Speed Limit		
39612	0		Miles 0 Tenths	Miles 45 Hour	☐ Unknown ☐ N/A	☐ Not Posted 25 ☐ Not Posted 45

(F1) Type of Crash: **4 - Intersection Movement**	(F2) Type of Location: **4 - Four Leg Intersection**
(F3) Weather Condition: **1 - Clear**	(F4) Light Condition: **1 - Daylight**
(F5) Road Grade: **1 - Level**	(F6) Road Surface Condition: **1 - Dry**
(F7) Traffic Control Device: **1 - Traffic Signals (Stop & Go)**	Traffic Control Device Operational (pre-crash)? ☑ Yes ☐ No ☐ Unk
(F8) Location of First Harmful Event: **1 - On Roadway**	Total Damage over Threshold? ☑ Yes ☐ No
(F9) Contributing Circumstances - Environment 1: **1 - None**	(F9) Contributing Circumstances - Environment 2
(F10) Contributing Circumstances - Road 1: **1 - None**	(F10) Contributing Circumstances -Road 2
In or Near a Construction, Maintenance, or Utility Work Zone? ☐ Yes ☑ No ☐ Unk	Work Zone Workers Present? ☐ Yes ☐ No ☐ Unk
(F11) Location of the Crash related to Work Zone	(F12) Type of Work Zone
Law Enforcement Present at Work Zone? ☐ Officer Present ☐ Law Enforcement Vehicle Only ☐ No	School Bus Related? ☐ Yes, Directly Involved ☐ Yes, Indirectly Involved ☑ No

NARRATIVE

Unit 1 was traveling north on Rt. 202. Unit 2 was traveling west through the intersection on the Cold Brook Rd. Unit 1 ran a red light and struck unit 2.

CRASH DIAGRAM



Witness Last Name	First	MI	Address	City	State	Zip
*			* ME*			
Witness Last Name	First	MI	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Reporting Officer	Badge#	Report Date	Approved By	Approved Date
Officer Shawn Devine	307	3/16/2014	Sergeant Christian Bailey	3/30/2014

Report Number
14H-00859

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
1	☐	**KMHWF25S54A998205**	*	**ME**	**1 - Passenger Car**

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐	**11770**	*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
27 - HYUNDAI	**2004**	**11 - Maroon**

(U4) Vehicle Configuration

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats? ☐ Yes ☑ No

HAZMAT Placarded? ☐ Yes ☑ No

Vehicle Travel Direction: ☑ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: **1 - No Special Function** ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☐ Functional Damage ☑ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
3 - Center Passenger Side	**13 - Motor Vehicle in Transport**
(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
1 - Following roadway	**2 - Brakes**
(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	
(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator

License Number	☑ Active	☐ No License	☐ Permit	☐ Suspended	State	License Class	Endorsements	Restrictions
*					**ME**	**C**	**0**	**0**

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			*** ME***			

Citation Number: Pending ☐

Violation 1: Violation 2:

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			*** ME***			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
1 - Not Distracted	**1 - Apparently Normal**
(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
4 - Ran Red Light	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT)

☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other

Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash
(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2
(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,...), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

AMB CODES - see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
1	*	M	06/21/89	1	1		2	1	3		5			2	1

Report Number: **14H-00859**

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
2	☐	4S3BL616657213183	*	ME	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐	22055	*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
65 - SUBARU	2005	4 - Blue

(U4) Vehicle Configuration:

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats? ☐ Yes ☑ No

HAZMAT Placarded? ☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☐ Southbound ☐ Eastbound ☑ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: 1 - No Special Function ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☐ Functional Damage ☑ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
12 - Front	13 - Motor Vehicle in Transport

(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
1 - Following roadway	1 - None

(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	

(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator

License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
*		ME	C	0	0

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number: Pending ☐

Violation 1	Violation 2

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
1 - Not Distracted	1 - Apparently Normal

(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
1 - No Contributing Action	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT)

☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other

Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash

(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2

(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,...), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Non-Incapacitating, 4-Possible Injury, 5-No Injury

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

AMB CODES - see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
1	*	F	11/10/92	1	1		2	1	3		5			2	1

2012-33025

STATE OF MAINE CRASH REPORT

FIRST PAGE

F

I R S T

Reporting Agency	Report Number	Crash Date	Crash Time	At Scene Date	At Scene Time
ME0100700	12H-02349	6/28/2012	14:35	6/28/2012	14:49

City or Town	Street or Highway	Int of COLD BROOK RD, COLDBROOK RD, US HWY 202	Off Road
Hampden	COLDBROOK RD		☐

Direction FROM Nearest Intersection to Crash Site	Distance From Nearest Inter.	Latitude	Longitude
☑ At Intersection ☐ North ☐ South ☐ East ☐ West	☐ Feet ☐ Miles	44.754270	-68.839410

Node 1	Node 2	Measurement Node	Distance to Scene Miles / Tenths	Posted Speed Limit Miles / Hour	Unknown / N/A	Not Posted 25 / Not Posted 45
39612	0		0	45	☐ / ☐	☐ / ☐

(F1) Type of Crash **2 - Rear End / Sideswipe**	(F2) Type of Location **4 - Four Leg Intersection**
(F3) Weather Condition **4 - Rain**	(F4) Light Condition **1 - Daylight**
(F5) Road Grade **1 - Level**	(F6) Road Surface Condition **2 - Wet**
(F7) Traffic Control Device **1 - Traffic Signals (Stop & Go)**	Traffic Control Device Operational (pre-crash)? ☑ Yes ☐ No ☐ Unk
(F8) Location of First Harmful Event **1 - On Roadway**	Total Damage over Threshold? ☑ Yes ☐ No
(F9) Contributing Circumstances - Environment 1 **1 - None**	(F9) Contributing Circumstances - Environment 2
(F10) Contributing Circumstances - Road 1 **2 - Road Surface Condition (Wet, Icy, Snow, Slush, etc.)**	(F10) Contributing Circumstances -Road 2
In or Near a Construction, Maintenance, or Utility Work Zone? ☐ Yes ☑ No ☐ Unk	Work Zone Workers Present? ☐ Yes ☐ No ☐ Unk
(F11) Location of the Crash related to Work Zone	(F12) Type of Work Zone
Law Enforcement Present at Work Zone? ☐ Officer Present ☐ Law Enforcement Vehicle Only ☐ No	School Bus Related? ☐ Yes, Directly Involved ☐ Yes, Indirectly Involved ☑ No

NARRATIVE

Vehicle #1 was stopped at the intersection of Rt. 202 and Coldbrook Road in the left turn lane. Vehicle #2, traveling north on Rt. 202, collided with Vehicle #1.

CRASH DIAGRAM

Witness Last Name	First	MI	Address	City	State	Zip
Witness Last Name	First	MI	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Reporting Officer	Badge#	Report Date	Approved By	Approved Date
Sergeant Christian Bailey	303	7/3/2012	Sergeant Scott Webber	7/5/2012

Report Number	STATE OF MAINE CRASH REPORT	UNIT PAGE
12H-02349		

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
1	☐	1G1JF52F247199754	*	ME	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
11 - CHEVROLET	2004	1 - Black

(U4) Vehicle Configuration

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats? ☐ Yes ☐ No

HAZMAT Placarded? ☐ Yes ☑ No

Vehicle Travel Direction: ☑ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: 1 - No Special Function ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☑ Functional Damage ☐ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
6 - Rear	13 - Motor Vehicle in Transport
(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
11 - Stopped in traffic	1 - None
(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	50 - No Other Events
(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator	License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
	*		ME	C	0	A,E

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number: Pending ☐

Violation 1	Violation 2

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
1 - Not Distracted	1 - Apparently Normal
(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
1 - No Contributing Action	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT) ☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other — Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash
(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2
(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,..), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

AMB CODES - see code sheet

A

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
1	*	F	07/25/91	1	1		2	1	3		4	9	3	2	1

Report Number: **12H-02349**

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
2	☐	1C3EL56R14N378714	*	ME	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
12 - CHRYSLER	2004	8 - Grey, Silver

(U4) Vehicle Configuration

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats ? ☐ Yes ☑ No

HAZMAT Placarded ? ☐ Yes ☑ No

Vehicle Travel Direction: ☑ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: 1 - No Special Function ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene ? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☑ Minor Damage ☐ Functional Damage ☐ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
12 - Front	13 - Motor Vehicle In Transport

(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
1 - Following roadway	1 - None

(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	50 - No Other Events

(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator	License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
	*		ME	C	0	0

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number: Pending ☐

Violation 1	Violation 2

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
6 - Unkown	2 - Physically Impaired or Handicapped

(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
19 - Other Contributing Action	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT)

☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other

Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash

(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2

(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,..), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-NonIncapacitating, 4-Possible Injury, 5-No Injury

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

AMB CODES - see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
1	*	F	09/24/79	1	1		2	1	3		5			2	1

2012-34240

STATE OF MAINE CRASH REPORT

FIRST PAGE

F I R S T

Reporting Agency	Report Number	Crash Date	Crash Time	At Scene Date	At Scene Time
ME0100700	12H-02782	7/29/2012	16:40	7/29/2012	16:44

City or Town	Street or Highway	Int of COLD BROOK RD, COLDBROOK RD, US HWY 202	Off Road
Hampden	COLDBROOK RD		☐

Direction FROM Nearest Intersection to Crash Site	Distance From Nearest Inter.	Latitude	Longitude
☑ At Intersection ☐ North ☐ South ☐ East ☐ West	☐ Feet ☐ Miles	44.754270	-68.839410

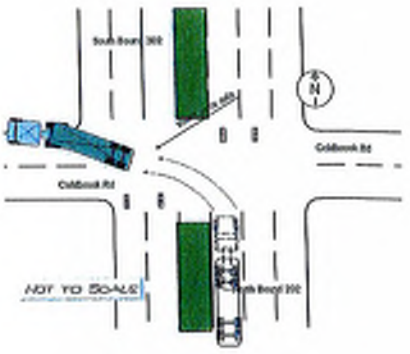
Node 1	Node 2	Measurement Node	Distance to Scene (Miles / Tenths)	Posted Speed Limit		
39612	0		0	45 Miles/Hour	☐ Unknown ☐ N/A	☐ Not Posted 25 ☐ Not Posted 45

(F1) Type of Crash	(F2) Type of Location
12 - Rollover	4 - Four Leg Intersection
(F3) Weather Condition	(F4) Light Condition
1 - Clear	1 - Daylight
(F5) Road Grade	(F6) Road Surface Condition
1 - Level	1 - Dry
(F7) Traffic Control Device	Traffic Control Device Operational (pre-crash)?
1 - Traffic Signals (Stop & Go)	☑ Yes ☐ No ☐ Unk
(F8) Location of First Harmful Event	Total Damage over Threshold?
1 - On Roadway	☑ Yes ☐ No
(F9) Contributing Circumstances - Environment 1	(F9) Contributing Circumstances - Environment 2
1 - None	
(F10) Contributing Circumstances - Road 1	(F10) Contributing Circumstances -Road 2
1 - None	
In or Near a Construction, Maintenance, or Utility Work Zone? ☐ Yes ☑ No ☐ Unk	Work Zone Workers Present? ☐ Yes ☐ No ☐ Unk
(F11) Location of the Crash related to Work Zone	(F12) Type of Work Zone
Law Enforcement Present at Work Zone? ☐ Officer Present ☐ Law Enforcement Vehicle Only ☐ No	School Bus Related? ☐ Yes, Directly Involved ☐ Yes, Indirectly Involved ☑ No

NARRATIVE

VH#1 was turning from North Bound Route 202 onto West Bound Coldbrook Rd. As VH#1 was turning the cargo onboard shifted. VH#1 then rolled onto its side.

CRASH DIAGRAM



Witness Last Name	First	MI	Address	City	State	Zip
*			* ME*			
Witness Last Name	First	MI	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Reporting Officer	Badge#	Report Date	Approved By	Approved Date
Officer Benson Eyles	306	7/30/2012	Sergeant Scott Webber	7/30/2012

Report Number
12H-02782

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	
1	☐	1FUJGLCK08LZ82243	*	ME	17 - Medium/Heavy Trucks (More than 10,000 lbs)

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
19 - FREIGHTLINER	2008	4 - Blue

(U4) Vehicle Configuration: **11 - Tractor/Semi-Trailer (one trailer - 5 axles)**

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☑ > than 26,000 lbs.

Vehicle Has 9 or More Seats? ☐ Yes ☑ No

HAZMAT Placarded? ☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☐ Southbound ☐ Eastbound ☑ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: **1 - No Special Function** ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☐ Functional Damage ☑ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
3 - Center Passenger Side	1 - Overturn / Rollover
(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
1 - Following roadway	1 - None
(U10) Sequence of Events 1	(U10) Sequence of Events 2
5 - Cargo / Equipment Loss or Shift	1 - Overturn / Rollover
(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator	License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
	*		ME	A	N,P	0

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number: Pending ☐

Violation 1: Violation 2:

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
1 - Not Distracted	1 - Apparently Normal
(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
1 - No Contributing Action	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT) ☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other — Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash
(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2
(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,...), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

AMB CODES - see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
1	*	F	06/17/72	1	1		2	1	3		5			3	1

STATE OF MAINE CRASH REPORT

Report Number	Commercial Vehicle Supplemental	No Carrier Identification Numbers ☐
12H-02782		

Unit ID	USDOT Number	MC/MX Number	State Number	MCSAP Number
1	288676	230595		

☑ Interstate Carrier ☐ Intrastate Carrier ☐ Not in Commerce-Government ☐ Not in Commerce-Other Trucks (Over 10,000 lbs. GVWR/GCWR)

Carrier Name	Carrier Phone
*	(207) 832-7300

Address	City	State	Zip
*, WALDOBORO ME 04572			

☐ Oversize Permit Weight ☐ Oversize Permit Length ☐ Oversize Permit Height ☐ Oversize Permit Width

3 Cargo Body Type (enter one code from below) ☐ Unloaded ☐ Partially Loaded ☑ Loaded

1 Bus (9-15 Seats, Including Driver)

6 Dump

11 Pole

2 Bus (16 or More Seats, Including Driver)

7 Concrete Mixer

12 Log

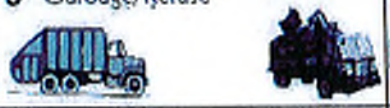
3 Van/Enclosed Box

8 Auto Transporter

13 Intermodal Chassis

4 Cargo Tank

9 Garbage/Refuse



14 Vehicle Towing Motor Vehicle

5 Flat Bed

10 Grain, Chips, Gravel

15 No Cargo Body

98 Other Cargo Body (not listed above)

W Commodity Code (enter one code from below)

A General Freight	J Fresh Produce	S Garbage, Refuse, Trash
B Household Goods	K Liquids / Gases in Cargo Tank	T U.S. Mail
C Metal: Sheets, Coils, Rolls	L Intermodal	U Chemicals
D Motor Vehicles	M Passengers	V Commodities, Dry Bulk
E DriveAway / TowAway	N Oil Field Equipment	W Refrigerated Foods
F Forest Products	0 Livestock	X Beverage
G Building Products	P Grain, Feed, Hay	Y Paper Products
H Mobile Homes	Q Coal / Coke	Z Other
I Machinery, Large Objects	R Meat	

0 Bus Use (enter one code from below)

0 Not a Bus	2 Transit	4 Charter
1 School (Public or Private)	3 Intercity	5 Other

***** HAZMAT Class Number (enter one code from below)

1 Explosives	6 Poisonous (Toxic) and Infectious Substances
2 Gases - Compressed, Dissolved or Refrigerated	7 Radioactive Material
3 Flammable Liquids	8 Corrosives
4 Flammable Solids-Combustible, Water Reactive	9 Miscellaneous Dangerous Goods, or Blank
5 Oxidizing Substances-Organic Peroxides	

* HAZMAT 4 Digit Number Was HAZMAT released from THIS vehicle's cargo? ☐ YES ☑ NO ☐ UNK

2013-1473

STATE OF MAINE CRASH REPORT

FIRST PAGE

F I R S T

Reporting Agency	Report Number	Crash Date	Crash Time	At Scene Date	At Scene Time
ME0100700	13H-00140	1/16/2013	09:20	1/16/2013	09:23

City or Town	Street or Highway	Int of COLD BROOK RD, COLDBROOK RD, US HWY 202	Off Road
Hampden	COLDBROOK RD		☐

Direction FROM Nearest Intersection to Crash Site	Distance From Nearest Inter.	Latitude	Longitude
☑ At Intersection ☐ North ☐ South ☐ East ☐ West	☐ Feet ☐ Miles	44.754270	-68.839410

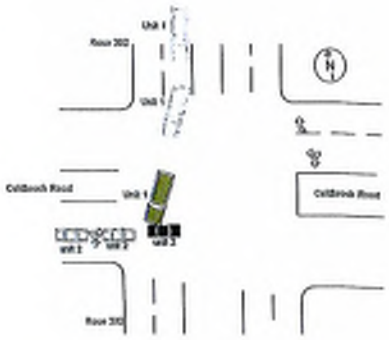
Node 1	Node 2	Measurement Node	Distance to Scene Miles / Tenths	Posted Speed Limit		
39612	0		0	Miles 40 Hour	☐ Unknown ☐ N/A	☐ Not Posted 25 ☐ Not Posted 45

(F1) Type of Crash **4 - Intersection Movement**	(F2) Type of Location **4 - Four Leg Intersection**
(F3) Weather Condition **6 - Snow**	(F4) Light Condition **1 - Daylight**
(F5) Road Grade **1 - Level**	(F6) Road Surface Condition **3 - Snow**
(F7) Traffic Control Device **1 - Traffic Signals (Stop & Go)**	Traffic Control Device Operational (pre-crash)? ☑ Yes ☐ No ☐ Unk
(F8) Location of First Harmful Event **1 - On Roadway**	Total Damage over Threshold? ☑ Yes ☐ No
(F9) Contributing Circumstances - Environment 1 **1 - None**	(F9) Contributing Circumstances - Environment 2
(F10) Contributing Circumstances - Road 1 **2 - Road Surface Condition (Wet, Icy, Snow, Slush, etc.)**	(F10) Contributing Circumstances -Road 2
In or Near a Construction, Maintenance, or Utility Work Zone? ☐ Yes ☑ No ☐ Unk	Work Zone Workers Present? ☐ Yes ☐ No ☐ Unk
(F11) Location of the Crash related to Work Zone	(F12) Type of Work Zone
Law Enforcement Present at Work Zone? ☐ Officer Present ☐ Law Enforcement Vehicle Only ☐ No	School Bus Related? ☐ Yes, Directly Involved ☐ Yes, Indirectly Involved ☑ No

NARRATIVE

Unit 1 was traveling South on route 202 approaching Coldbrook Road intersection. Unit 1 attempted to go through the intersection and had a green light. Unit 2 was traveling east on Coldbrook Road approaching the Route 202 intersection and failed to stop for the red light.
Unit 1 then struck the drivers side back of Unit 2.

CRASH DIAGRAM



Witness Last Name	First	MI	Address	City	State	Zip

Witness Last Name	First	MI	Address	City	State	Zip

Non Vehicle Property Damage Description	☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Non Vehicle Property Damage Description	☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Reporting Officer	Badge#	Report Date	Approved By	Approved Date
Officer Joel Small	304	1/16/2013	Sergeant Christian Bailey	1/18/2013

Report Number: **13H-00140**

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
1	☐	5GTEN13L488140254	*	ME	2 - (Sport) Utility Vehicle

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
23 - GMC	2008	8 - Grey, Silver

(U4) Vehicle Configuration:

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats? ☐ Yes ☑ No

HAZMAT Placarded? ☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☑ Southbound ☐ Eastbound ☐ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: 1 - No Special Function ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☑ Minor Damage ☐ Functional Damage ☐ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
12 - Front	13 - Motor Vehicle in Transport

(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
1 - Following roadway	1 - None

(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	

(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator

License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
*		ME			

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number: Pending ☐

Violation 1	Violation 2

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
1 - Not Distracted	1 - Apparently Normal

(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
1 - No Contributing Action	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT)

☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other

Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash

(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2

(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,..), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest/Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

AMB CODES - see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians: Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
6	*	F	12/14/71	1	1		2	1	3		5			1	1

Report Number: **13H-00140**

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	HR Run?	VIN	License Plate	State	(U1) Unit Type
2	☐	1FAFP55SOYG19049B	*	ME	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
18 - FORD	2000	1 - Black

(U4) Vehicle Configuration

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs

Vehicle Has 9 or More Seats ? ☐ Yes ☐ No

HAZMAT Placarded ? ☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☐ Southbound ☑ Eastbound ☐ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: **1 - No Special Function** ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene ? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☐ Functional Damage ☑ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
8 - Rear Driver Quarter Panel	13 - Motor Vehicle in Transport
(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
16 - Skidding	1 - None
(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	
(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

Driver / Bicycle / Pedestrian / Last Known Operator	License Number	Active / No License / Permit / Suspended	State	License Class	Endorsements	Restrictions
☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator	*	☑ Active ☐ No License ☐ Permit ☐ Suspended	ME	C		

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number: Pending ☐

Violation 1	Violation 2

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
1 - Not Distracted	1 - Apparently Normal
(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
9 - Drove Too Fast For Conditions	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT) ☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other — Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash
(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2
(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,..), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

AMB CODES - see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians: Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
6	*	F	03/27/53	1	1		2	1	3		5			2	1

2012-39456

STATE OF MAINE CRASH REPORT

FIRST PAGE

F I R S T

Reporting Agency	Report Number	Crash Date	Crash Time	At Scene Date	At Scene Time
ME0100700	12H-03523	9/22/2012	19:46	9/22/2012	19:46

City or Town	Street or Highway	Int of COLD BROOK RD, COLDBROOK RD, US HWY 202	Off Road
Hampden	US HWY 202		☐

Direction FROM Nearest Intersection to Crash Site	Distance From Nearest Inter.	Latitude	Longitude
☑ At Intersection ☐ North ☐ South ☐ East ☐ West	☐ Feet ☐ Miles	44.754270	-68.839410

Node 1	Node 2	Measurement Node	Distance to Scene Miles / Tenths	Posted Speed Limit Miles / Hour		
39612	0		0	35	☐ Unknown ☐ N/A	☐ Not Posted 25 ☐ Not Posted 45

(F1) Type of Crash **4 - Intersection Movement**	(F2) Type of Location **4 - Four Leg Intersection**
(F3) Weather Condition **2 - Cloudy**	(F4) Light Condition **4 - Dark - Lighted**
(F5) Road Grade **1 - Level**	(F6) Road Surface Condition **1 - Dry**
(F7) Traffic Control Device **1 - Traffic Signals (Stop & Go)**	Traffic Control Device Operational (pre-crash)? ☑ Yes ☐ No ☐ Unk
(F8) Location of First Harmful Event **1 - On Roadway**	Total Damage over Threshold? ☑ Yes ☐ No
(F9) Contributing Circumstances - Environment 1 **1 - None**	(F9) Contributing Circumstances - Environment 2
(F10) Contributing Circumstances - Road 1 **1 - None**	(F10) Contributing Circumstances -Road 2 **1 - None**
In or Near a Construction, Maintenance, or Utility Work Zone? ☐ Yes ☑ No ☐ Unk	Work Zone Workers Present? ☐ Yes ☐ No ☐ Unk
(F11) Location of the Crash related to Work Zone	(F12) Type of Work Zone
Law Enforcement Present at Work Zone? ☐ Officer Present ☐ Law Enforcement Vehicle Only ☐ No	School Bus Related? ☐ Yes, Directly Involved ☐ Yes, Indirectly Involved ☑ No

NARRATIVE

Unit one was traveling EB on Coldbrook road turning onto US Rt 202 to go north. Unit two was traveling WB from lower Coldbrook road going straight. The light turned green, unit two had the right of way and unit one turned into the path of unit two.

CRASH DIAGRAM

Witness Last Name	First	MI	Address	City	State	Zip
Witness Last Name	First	MI	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Reporting Officer	Badge#	Report Date	Approved By	Approved Date
Officer James E Ryan, Jr.	316	9/22/2012	Sergeant Scott Webber	9/23/2012

Report Number: **12H-03523**

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
1	☐	1G1AK15F177382132	*	ME	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
11 - CHEVROLET	2007	14 - White

(U4) Vehicle Configuration:

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats ?	HAZMAT Placarded ?
☐ Yes ☑ No	☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☐ Southbound ☑ Eastbound ☐ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: **1 - No Special Function** ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene ? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☐ Functional Damage ☑ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
5 - Rear Passenger Corner	13 - Motor Vehicle in Transport

(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
6 - Making left turn	1 - None

(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	

(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator

License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
*		ME	C	0	0

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number	Pending ☐	Violation 1	Violation 2

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
1 - Not Distracted	1 - Apparently Normal

(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
3 - Failed to Yield Right-of-Way	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT)

☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other

Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash

(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2

(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt...), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

AMB CODES = see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
1	*	F	05/08/89	1	1		2	1	3		5			2	1

Report Number
12H-03523

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
2	☐	JF1SG63607H741435	*	ME	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐	25178	*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
65 - SUBARU	2007	8 - Grey, Silver

(U4)Vehicle Configuration

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats? ☐ Yes ☐ No

HAZMAT Placarded? ☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☐ Southbound ☐ Eastbound ☑ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: **1 - No Special Function** ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☐ Functional Damage ☑ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
12 - Front	13 - Motor Vehicle in Transport
(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
1 - Following roadway	1 - None
(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	
(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator

License Number: * ☑ Active ☐ No License ☐ Permit ☐ Suspended

State	License Class	Endorsements	Restrictions
ME	C	0	0

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number: Pending ☐

Violation 1: Violation 2:

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By: 1 - Not Distracted

(D2) Condition at Time of Crash: 1 - Apparently Normal

(D3) Driver Actions at Time of Crash 1: 1 - No Contributing Action

(D3) Driver Actions at Time of Crash 2:

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT)

☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other

Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash:

(D5) Non Motorist Action Prior to Crash:

(D6) Non Motorist Action at Time of Crash 1:

(D6) Non Motorist Action at Time of Crash 2:

(D7) Pedestrian Maneuvers:

(D8) Bicyclist Maneuvers:

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,..), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest/Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

AMB CODES - see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
6	*	M	05/27/77	1	1		2	1	3		5			2	1

2013-3151

STATE OF MAINE CRASH REPORT

FIRST PAGE

F I R S T

Reporting Agency	Report Number	Crash Date	Crash Time	At Scene Date	At Scene Time
ME0100700	13H-00157	1/17/2013	12:00	1/17/2013	12:04

City or Town	Street or Highway	Int of COLD BROOK RD, COLDBROOK RD, US HWY 202	Off Road
Hampden	US HWY 202		☐

Direction FROM Nearest Intersection to Crash Site	Distance From Nearest Inter.	Latitude	Longitude
☑ At Intersection ☐ North ☐ South ☐ East ☐ West	☐ Feet ☐ Miles	44.754270	-68.839410

Node 1	Node 2	Measurement Node	Distance to Scene	Posted Speed Limit		
39612	0		Miles 0 Tenths	Miles 40 Hour	☐ Unknown ☐ N/A	☐ Not Posted 25 ☐ Not Posted 45

(F1) Type of Crash **4 - Intersection Movement**	(F2) Type of Location **4 - Four Leg Intersection**
(F3) Weather Condition **1 - Clear**	(F4) Light Condition **1 - Daylight**
(F5) Road Grade **1 - Level**	(F6) Road Surface Condition **1 - Dry**
(F7) Traffic Control Device **1 - Traffic Signals (Stop & Go)**	Traffic Control Device Operational (pre-crash)? ☑ Yes ☐ No ☐ Unk
(F8) Location of First Harmful Event **1 - On Roadway**	Total Damage over Threshold? ☑ Yes ☐ No
(F9) Contributing Circumstances - Environment 1 **3 - Physical Obstructions**	(F9) Contributing Circumstances - Environment 2
(F10) Contributing Circumstances - Road 1 **1 - None**	(F10) Contributing Circumstances -Road 2
In or Near a Construction, Maintenance, or Utility Work Zone? ☐ Yes ☑ No ☐ Unk	Work Zone Workers Present? ☐ Yes ☐ No ☐ Unk
(F11) Location of the Crash related to Work Zone	(F12) Type of Work Zone
Law Enforcement Present at Work Zone? ☐ Officer Present ☐ Law Enforcement Vehicle Only ☐ No	School Bus Related? ☐ Yes, Directly Involved ☐ Yes, Indirectly Involved ☑ No

NARRATIVE

Unit 1 was traveling West on Route 202 approaching the intersection of Coldbrook Road. Unit 1 operator vision was affected by the sun and proceeded through the intersection. Unit 2 was traveling north on Route 202 and positioned the vehicle in the left lane to prepare to make a left turn on to Coldbrook Road. Unit 2 operator was forced to stop for the red light. The light turned green and unit 2 operator began to proceed through the intersection and was struck by Unit 1.

CRASH DIAGRAM

Witness Last Name	First	MI	Address	City	State	Zip
Witness Last Name	First	MI	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Reporting Officer	Badge#	Report Date	Approved By	Approved Date
Officer Joel Small	304	2/7/2013	Sergeant Christian Bailey	2/7/2013

Report Number
13H-00157

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
1	☐	1GCHG35K981230474	*	ME	4 - Cargo Van (10K lbs or Less)

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
11 - CHEVROLET	2008	10 - Red

(U4) Vehicle Configuration

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats? ☐ Yes ☑ No

HAZMAT Placarded? ☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☑ Southbound ☐ Eastbound ☐ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: 1 - No Special Function ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☑ Minor Damage ☐ Functional Damage ☐ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
11 - Front Driver Corner	13 - Motor Vehicle in Transport

(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
1 - Following roadway	1 - None

(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	

(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator

License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
*		ME			

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number: 2497706 Pending ☐

Violation 1	Violation 2
29-A-2057-1C1	

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
1 - Not Distracted	1 - Apparently Normal

(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
4 - Ran Red Light	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT)

☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other

Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash

(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2

(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3-Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 8-Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,..), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest/Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

AMB CODES - see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians: Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
1	*	M	07/04/44	1	1		2	1	3		5			1	1

Report Number: 13H-00157

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
2	☐	4S3BH675217606754	*	ME	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
65 - SUBARU	2001	5 - Green

(U4) Vehicle Configuration:

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats ? ☐ Yes ☐ No

HAZMAT Placarded ? ☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☐ Southbound ☐ Eastbound ☑ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: 1 - No Special Function ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene ? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☑ Functional Damage ☐ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
4 - Rear Passenger Quarter Panel	13 - Motor Vehicle in Transport
(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
6 - Making left turn	1 - None
(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	
(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator	License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
	*		ME			

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number: Pending ☐

Violation 1: Violation 2:

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By: 1 - Not Distracted

(D2) Condition at Time of Crash: 1 - Apparently Normal

(D3) Driver Actions at Time of Crash 1: 1 - No Contributing Action

(D3) Driver Actions at Time of Crash 2:

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT) ☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other — Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash:

(D5) Non Motorist Action Prior to Crash:

(D6) Non Motorist Action at Time of Crash 1:

(D6) Non Motorist Action at Time of Crash 2:

(D7) Pedestrian Maneuvers:

(D8) Bicyclist Maneuvers:

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,..), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

AMB CODES - see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians: Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
6	*	F	07/12/73	1	1		2	1	3		5			1	1

2013-9295

STATE OF MAINE CRASH REPORT

FIRST PAGE

F I R S T

Reporting Agency	Report Number	Crash Date	Crash Time	At Scene Date	At Scene Time
ME0100700	13H-00937	3/30/2013	17:45	3/30/2013	17:50

City or Town	Street or Highway	Int of COLD BROOK RD, COLDBROOK RD, US HWY 202	Off Road
Hampden	US HWY 202		☐

Direction FROM Nearest Intersection to Crash Site	Distance From Nearest Inter.	Latitude	Longitude
☑ At Intersection ☐ North ☐ South ☐ East ☐ West	☐ Feet ☐ Miles	44.754270	-68.839410

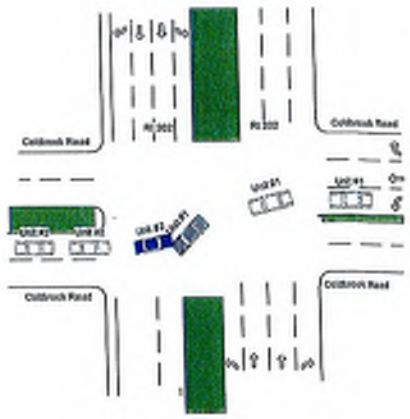
Node 1	Node 2	Measurement Node	Distance to Scene Miles / Tenths	Posted Speed Limit	Unknown / N/A	Not Posted 25 / Not Posted 45
39612	0		0	30 Miles / Hour	☐ / ☐	☐ / ☐

(F1) Type of Crash	(F2) Type of Location
4 - Intersection Movement	4 - Four Leg Intersection
(F3) Weather Condition	(F4) Light Condition
1 - Clear	1 - Daylight
(F5) Road Grade	(F6) Road Surface Condition
1 - Level	1 - Dry
(F7) Traffic Control Device	Traffic Control Device Operational (pre-crash)?
1 - Traffic Signals (Stop & Go)	☑ Yes ☐ No ☐ Unk
(F8) Location of First Harmful Event	Total Damage over Threshold?
1 - On Roadway	☑ Yes ☐ No
(F9) Contributing Circumstances - Environment 1	(F9) Contributing Circumstances - Environment 2
1 - None	
(F10) Contributing Circumstances - Road 1	(F10) Contributing Circumstances -Road 2
1 - None	
In or Near a Construction, Maintenance, or Utility Work Zone? ☐ Yes ☑ No ☐ Unk	Work Zone Workers Present? ☐ Yes ☐ No ☐ Unk
(F11) Location of the Crash related to Work Zone	(F12) Type of Work Zone
Law Enforcement Present at Work Zone? ☐ Officer Present ☐ Law Enforcement Vehicle Only ☐ No	School Bus Related? ☐ Yes, Directly Involved ☐ Yes, Indirectly Involved ☑ No

NARRATIVE

Unit #2 was traveling east on Coldbrook Road proceeding straight through the intersection of Coldbrook Road and Rt 202. Unit #1 was traveling west on Coldbrook Road turning left onto Rt 202 south. Unit #1 turned into the path of Unit #2 causing a collision.

CRASH DIAGRAM



Witness Last Name	First	MI	Address	City	State	Zip
Witness Last Name	First	MI	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Reporting Officer	Badge#	Report Date	Approved By	Approved Date
Sergeant Scott Webber	302	3/31/2013	Sergeant Christian Bailey	4/13/2013

Report Number: **13H-00937**

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
1	☐	1G8JU54F53Y547592	*	ME	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
62 - SATURN	2003	8 - Grey, Silver

(U4) Vehicle Configuration:

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats ? ☐ Yes ☑ No

HAZMAT Placarded ? ☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☐ Southbound ☐ Eastbound ☑ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: **1 - No Special Function** ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene ? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☑ Functional Damage ☐ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
1 - Front Passenger Corner	13 - Motor Vehicle in Transport
(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
6 - Making left turn	1 - None
(U10) Sequence of Events 1	(U10) Sequence of Events 2
11 - Cross Centerline	21 - Motor Vehicle In Transport
(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator

License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
*		ME	C	0	A

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number: Pending ☐

Violation 1: Violation 2:

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
6 - Unkown	1 - Apparently Normal
(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
3 - Failed to Yield Right-of-Way	10 - Improper Turn

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT)

☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other

Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash
(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2
(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,...), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

AMB CODES - see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
6	*	F	05/12/20	1	1		2	1	3		5			2	1

Report Number: **13H-00937**

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
2	☐	4S4BP61C396322363	*	CT	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
65 - SUBARU	2009	4 - Blue

(U4) Vehicle Configuration

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats? ☐ Yes ☑ No

HAZMAT Placarded? ☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☐ Southbound ☑ Eastbound ☐ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: 1 - No Special Function ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☑ Functional Damage ☐ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
1 - Front Passenger Corner	13 - Motor Vehicle in Transport

(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
1 - Following roadway	1 - None

(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	

(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator

License Number	Active	No License	Permit	Suspended	State	License Class	Endorsements	Restrictions
*	☑	☐	☐	☐	CT	0	0	A

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* CT*			

Citation Number: Pending ☐

Violation 1	Violation 2

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* CT*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
1 - Not Distracted	1 - Apparently Normal

(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
1 - No Contributing Action	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT)

☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other

Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash

(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2

(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt, ..), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-NonIncapacitating, 4-Possible Injury, 5-No Injury

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

AMB CODES - see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians: Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
6	*	M	05/18/85	1	1		2	1	3		5			2	1
2	*	F	08/27/84	1	3		2	1	3		5			1	1
2	*	M	03/25/12	2	3		2	1	7		5			1	1

2014-9798

STATE OF MAINE CRASH REPORT

FIRST PAGE

F I R S T

Reporting Agency	Report Number	Crash Date	Crash Time	At Scene Date	At Scene Time
ME0100700	14H-00974	3/26/2014	18:35	3/26/2014	18:45

City or Town	Street or Highway	Int of COLD BROOK RD, COLDBROOK RD, US HWY 202	Off Road
Hampden	US HWY 202		☐

Direction FROM Nearest Intersection to Crash Site	Distance From Nearest Inter.	Latitude	Longitude
☑ At Intersection ☐ North ☐ South ☐ East ☐ West	☐ Feet ☐ Miles	44.754270	-68.839410

Node 1	Node 2	Measurement Node	Distance to Scene	Posted Speed Limit		
39612	0		Miles 0 Tenths	Miles 45 Hour	☐ Unknown ☐ N/A	☐ Not Posted 25 ☐ Not Posted 45

(F1) Type of Crash **4 - Intersection Movement**	(F2) Type of Location **4 - Four Leg Intersection**
(F3) Weather Condition **2 - Cloudy**	(F4) Light Condition **1 - Daylight**
(F5) Road Grade **1 - Level**	(F6) Road Surface Condition **1 - Dry**
(F7) Traffic Control Device **1 - Traffic Signals (Stop & Go)**	Traffic Control Device Operational (pre-crash)? ☑ Yes ☐ No ☐ Unk
(F8) Location of First Harmful Event **1 - On Roadway**	Total Damage over Threshold? ☑ Yes ☐ No
(F9) Contributing Circumstances - Environment 1 **1 - None**	(F9) Contributing Circumstances - Environment 2
(F10) Contributing Circumstances - Road 1 **1 - None**	(F10) Contributing Circumstances -Road 2
In or Near a Construction, Maintenance, or Utility Work Zone? ☐ Yes ☑ No ☐ Unk	Work Zone Workers Present? ☐ Yes ☐ No ☐ Unk
(F11) Location of the Crash related to Work Zone	(F12) Type of Work Zone
Law Enforcement Present at Work Zone? ☐ Officer Present ☐ Law Enforcement Vehicle Only ☐ No	School Bus Related? ☐ Yes, Directly Involved ☐ Yes, Indirectly Involved ☑ No

NARRATIVE

Unit 2 was travelling north of Route 202. Unit 1 was travelling south on route 202. Unit 2 came to the intersection of route 202 and coldbrook road. Unit 2 had a green light and began turning left on to coldbrook road. Unit 1 had a red light and ran the light and struck Unit 2 in the rear passengers side. Unit 1 operator admitted to running the red light.

CRASH DIAGRAM

Witness Last Name	First	MI	Address	City	State	Zip
Witness Last Name	First	MI	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Reporting Officer	Badge#	Report Date	Approved By	Approved Date
Officer Marc Egan	308	3/27/2014	Sergeant Christian Bailey	3/30/2014

Last Modified: 3/30/2014 16:38

Report Number: **14H-00974**

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
1	☐	1G2NF12E41M662620	*	ME	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
58 - PONTIAC	2001	10 - Red

(U4) Vehicle Configuration:

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats ? ☐ Yes ☐ No

HAZMAT Placarded ? ☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☑ Southbound ☐ Eastbound ☐ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: 1 - No Special Function ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene ? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☐ Functional Damage ☑ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
12 - Front	13 - Motor Vehicle in Transport

(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
1 - Following roadway	1 - None

(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	

(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator

License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
*		ME	C	0	0

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number	Pending	Violation 1	Violation 2
2498198	☐	29-A-2057-1C-1	

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
6 - Unkown	1 - Apparently Normal

(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
4 - Ran Red Light	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT)

☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other

Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash

(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2

(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,..), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

AMB CODES - see code sheet

A

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
6	*	F	10/23/64	1	1		3	1	3		5			2	1

Report Number
14H-00974

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
2	☐	3FAHP0HA0BR170413	*	SD	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
18 - FORD	2013	10 - Red

(U4) Vehicle Configuration

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats ? ☐ Yes ☐ No

HAZMAT Placarded ? ☐ Yes ☑ No

Vehicle Travel Direction: ☑ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: **1 - No Special Function** ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene ? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☐ Functional Damage ☑ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
4 - Rear Passenger Quarter Panel	13 - Motor Vehicle In Transport
(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
6 - Making left turn	1 - None
(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	
(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator	License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
	*		ME	C	0	A

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number Pending ☐

Violation 1 | Violation 2

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* SD*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
1 - Not Distracted	1 - Apparently Normal
(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
1 - No Contributing Action	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT) ☐ Alcohol Test Result Pending | Alcohol BAC Result

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other | Drug Test Result ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash
(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2
(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 8- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt, ...), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

AMB CODES - see code sheet

A

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
1	*	F	01/13/87	1	1		4	1	3		5			2	1

2014-15665

STATE OF MAINE CRASH REPORT

FIRST PAGE

F I R S T

Reporting Agency	Report Number	Crash Date	Crash Time	At Scene Date	At Scene Time
ME0100700	14H-01811	6/6/2014	14:15	6/6/2014	14:20

City or Town	Street or Highway	Int of COLD BROOK RD, COLDBROOK RD, US HWY 202	Off Road
Hampden	US HWY 202		☐

Direction FROM Nearest Intersection to Crash Site	Distance From Nearest Inter.	Latitude	Longitude
☑ At Intersection ☐ North ☐ South ☐ East ☐ West	☐ Feet ☐ Miles	44.754270	-68.839410

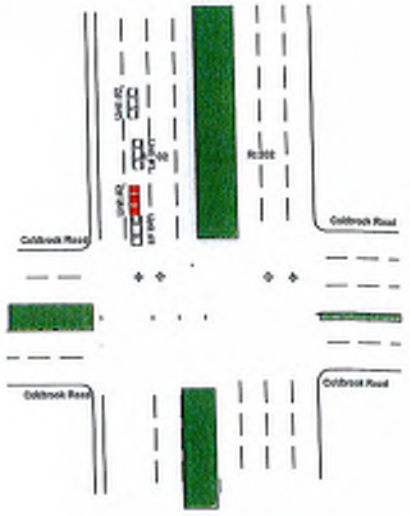
Node 1	Node 2	Measurement Node	Distance to Scene	Posted Speed Limit		
39612	0		Miles 0 Tenths	Miles 45 Hour	☐ Unknown ☐ N/A	☐ Not Posted 25 ☐ Not Posted 45

(F1) Type of Crash **2 - Rear End / Sideswipe**	(F2) Type of Location **4 - Four Leg Intersection**
(F3) Weather Condition **1 - Clear**	(F4) Light Condition **1 - Daylight**
(F5) Road Grade **1 - Level**	(F6) Road Surface Condition **1 - Dry**
(F7) Traffic Control Device **1 - Traffic Signals (Stop & Go)**	Traffic Control Device Operational (pre-crash)? ☑ Yes ☐ No ☐ Unk
(F8) Location of First Harmful Event **1 - On Roadway**	Total Damage over Threshold? ☑ Yes ☐ No
(F9) Contributing Circumstances - Environment 1 **1 - None**	(F9) Contributing Circumstances - Environment 2
(F10) Contributing Circumstances - Road 1 **1 - None**	(F10) Contributing Circumstances -Road 2
In or Near a Construction, Maintenance, or Utility Work Zone? ☐ Yes ☑ No ☐ Unk	Work Zone Workers Present? ☐ Yes ☐ No ☐ Unk
(F11) Location of the Crash related to Work Zone	(F12) Type of Work Zone
Law Enforcement Present at Work Zone? ☐ Officer Present ☐ Law Enforcement Vehicle Only ☐ No	School Bus Related? ☐ Yes, Directly Involved ☐ Yes, Indirectly Involved ☑ No

NARRATIVE

Both units were traveling south on Rt 202. As they approached the intersection of 202 and Coldbrook Road #1 slowed rapidly due to the traffic signal change from green to yellow. Unit #2 was traveling behind #1 and failed to slow for the yellow light and struck #1 from the rear.

CRASH DIAGRAM



Witness Last Name	First	MI	Address	City	State	Zip
Witness Last Name	First	MI	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Non Vehicle Property Damage Description ☐ State ☐ City or Town ☐ Utilities ☐ Private

Property Owner Name	Address	City	State	Zip

Reporting Officer	Badge#	Report Date	Approved By	Approved Date
Sergeant Scott Webber	302	6/7/2014	Sergeant Christian Bailey	6/11/2014

Report Number: **14H-01811**

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
1	☐	1HGES16344L003786	*	ME	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐	25143	*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
26 - HONDA	2009	14 - White

(U4) Vehicle Configuration

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats ? ☐ Yes ☐ No

HAZMAT Placarded ? ☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☑ Southbound ☐ Eastbound ☐ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: **1 - No Special Function** ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene ? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☐ Functional Damage ☑ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
6 - Rear	13 - Motor Vehicle in Transport

(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
11 - Stopped in traffic	1 - None

(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	

(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator

License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
*		ME	C	0	0

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number: Pending ☐

Violation 1: Violation 2:

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
1 - Not Distracted	1 - Apparently Normal

(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
1 - No Contributing Action	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT)

☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other

Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash

(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2

(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,...), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

AMB CODES - see code sheet

A

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians: Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
1	*	F	07/07/94	1	1		2	1	3		4	7	2	2	9999

Report Number: **14H-01811**

STATE OF MAINE CRASH REPORT

UNIT PAGE

UNIT

Unit ID	Hit Run?	VIN	License Plate	State	(U1) Unit Type
2	☐	KNAGE123085260973	*	ME	1 - Passenger Car

No Insurance	NAIC	Insurance Company Name	Insurance Policy Number
☐		*	*

(U2) Vehicle Make	Vehicle Year	(U3) Vehicle Color
37 - KIA	2008	10 - Red

(U4) Vehicle Configuration

GVWR or GCWR: ☐ < 10,000 lbs. ☐ 10,001 - 26,000 lbs. ☐ > than 26,000 lbs.

Vehicle Has 9 or More Seats? ☐ Yes ☑ No

HAZMAT Placarded? ☐ Yes ☑ No

Vehicle Travel Direction: ☐ Northbound ☑ Southbound ☐ Eastbound ☐ Westbound ☐ Not on Roadway ☐ Unknown

(U5) Special Function Vehicle: 1 - No Special Function ☐ Exempt Vehicle

Emergency Vehicle Responding to Scene? ☐ Yes ☐ No

Extent of Damage: ☐ No Damage Observed ☐ Minor Damage ☐ Functional Damage ☑ Towed Due to Disabling Damage

(U6) Most Damaged Area	(U7) Most Harmful Event
12 - Front	13 - Motor Vehicle in Transport

(U8) Pre Crash Actions	(U9) Contributing Circumstances - Vehicle
1 - Following roadway	1 - None

(U10) Sequence of Events 1	(U10) Sequence of Events 2
21 - Motor Vehicle In Transport	

(U10) Sequence of Events 3	(U10) Sequence of Events 4

DRIVER

☑ Driver ☐ Bicycle ☐ Pedestrian ☐ Last Known Operator	License Number	☑ Active ☐ No License ☐ Permit ☐ Suspended	State	License Class	Endorsements	Restrictions
	*		ME	C	0	A

DRIVER Last Name	First Name	MI	DRIVER Address	City	State	Zip
*			* ME*			

Citation Number: Pending ☐

Violation 1	Violation 2

OWNER Last Name (skip if same as Driver)	First Name	MI	OWNER Address	City	State	Zip
*			* ME*			

(D1) Driver Distracted By	(D2) Condition at Time of Crash
6 - Unkown	1 - Apparently Normal

(D3) Driver Actions at Time of Crash 1	(D3) Driver Actions at Time of Crash 2
14 - Followed Too Closely	

Alcohol Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Breath ☐ Urine ☐ Other Chemical Test (Not Field Sobriety or PBT)

☐ Alcohol Test Result Pending — Alcohol BAC Result:

Drug Test: ☑ Test Not Given ☐ Test Refused ☐ Blood ☐ Urine ☐ Other

Drug Test Result: ☐ Positive ☐ Negative ☐ Pending

(D4) Non Motorist Location at Time of Crash	(D5) Non Motorist Action Prior to Crash

(D6) Non Motorist Action at Time of Crash 1	(D6) Non Motorist Action at Time of Crash 2

(D7) Pedestrian Maneuvers	(D8) Bicyclist Maneuvers

OCCUPANT

PERSON TYPE 1-Driver, 2-Passenger, 3-Pedestrian, 6-Driver/Owner, 7-Bicycle, 8-Passenger/Owner, 24-Last Known Operator 25-Last Known Operator/Owner

SEAT ROW: 1-Front Row, 2-Second Row, 3-Third Row, 4-Fourth Row, 5-Other Row, 6-Unknown

SEAT POSITION: 1-Left (driver), 2-Middle, 3-Right, 4-Other, 5-Unknown

SEAT POSITION OTHER: 1-Sleeper Section of Cab (truck), 2-Other Enclosed Cargo Area, 3- Unenclosed Cargo Area, 4-Trailing Unit, 5-Riding on Motor Vehicle Ext (non-trailing unit), 6- Unknown

AIRBAG DEPLOYED: 1-Not Applicable, 2-Not Deployed, 3-Deployed - Front, 4-Deployed - Side, 5-Deployed - Other (knee, air belt,...), 6-Deployed - Combination, 7-Deployment - Curtain

RESTRAINT SYSTEM: 1-Not Applicable, 2-None Used - Motor Vehicle Occupant, 3-Shoulder and Lap Belt Used, 4-Shoulder Belt Only Used, 5-Lap Belt Only Used, 6-Restraint Used - Other, 7-Child Restraint - Forward Facing, 8-Child Restraint - Rear Facing, 9-Child Restraint - Used Incorrectly, 10-Booster Seat, 11-Child Restraint - Other

INJURY TYPE: 1-Amputation, 2-Bleeding, 3-Broken Bones, 4-Burns, 5-Concussion, 6-Shock, 7-Dizziness, 8-Abrasion/Bruises, 9-Complaint of Pain, 10-Other

INJURY AREA: 1-Face, 2-Head, 3-Neck, 4-Back, 5-Arm(s), 6-Leg(s), 7-Chest Stomach, 8-Internal, 9-Entire Body, 10-Other

INJURY DEGREE: 1-Fatal, 2-Incapacitating, 3-Nonincapacitating, 4-Possible Injury, 5-No Injury

EJECTED: 1-Not Ejected, 2-Ejected Partially, 3-Ejected Totally

HELMET USE: 1-DOT-Compliant Motorcycle Helmet, 2-Other Helmet, 3-No Helmet

INJURY INFO SOURCE: 1-Officer Observation, 2-Individual Statement, 3-Medical, Paramedical Observation

AMB CODES - see code sheet

Person Type	Include Driver, Passengers, Bicyclist, and Pedestrians Last Name, First Name, MI	Sex (M,F,U)	DOB	Seat Pos Row	Seat Pos	Seat Pos Other	Air Bag Deployed	Ejected	Restraint System	Helmet Use	Injury Degree	Injury Type	Injury Area	Inj Info Source	Amb Code
6	*	F	06/11/78	1	1		3	1	3		5			2	1
2	*	M	06/05/05	1	3		3	1	3		5			2	1
2	*	M	09/27/07	2	3		3	1	3		5			2	1

ATTACHMENT 18A

BASIC STANDARDS SUBMISSION

ATTACHMENT 18 - REVISED

STORMWATER AND EROSION AND SEDIMENTATION CONTROL

Applications must include evidence that affirmatively demonstrate that there will be no unreasonable adverse effect on surface water quality, including evidence that:

(a) The applicant will comply with all applicable stormwater management standards of 06-096 CMR 500, if the proposed facility is in the direct watershed of "waterbodies most at risk from new development"; and

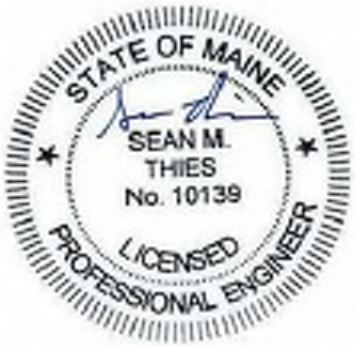
The proposed project is not located within the direct watershed of a waterbody most at risk from new development.

Included in this section are the Basic Standard and General Standard submissions of the MDEP Chapter 500 Stormwater Law. These Standards address erosion and sedimentation control and stormwater quality consistent with the submission requirements of Chapter 400, Section 4.H and 4.J.

Refer to Attachment 12 for the preliminary findings of the geotechnical investigations that have been done to date, along with boring logs, which indicate that the soils are suitable for the proposed development.

(b) A waste water discharge license has been obtained or will be obtained, if required by 38 M.R.S.A. §413.

The proposed project does not require a waste water discharge license.



ATTACHMENT 18A

BASIC STANDARD SUBMISSIONS

An Erosion and Sedimentation Plan has been prepared for the MRC/Fiberight Processing Facility. The erosion control notes in this plan address permanent stabilization measures, seeding, and mulching rates, as well as the timing of installation. Construction and installation details are also provided for the project. Additional descriptions and specifications are provided in this section. The locations of silt fence and other erosion control devices have been shown on Sheet C101.

An Inspection and Maintenance Plan has also been included. This plan includes a list of measures to be inspected and maintained, as well as the frequency and responsible parties to implement the plan.

A Housekeeping Plan has also been included. This plan provides controls to address spill prevention and possible events that could result in discharges on the site.

EROSION AND SEDIMENTATION CONTROL

1. **Pollution Prevention:** The proposed project includes the construction of a solid waste processing facility in Hampden, Maine. The facility will include an administration building, processing facility building, parking areas, and truck maneuvering area. All disturbed areas, with the exception of the buildings, and parking/maneuvering areas, will be stabilized with vegetation or riprap. Proposed downgradient wooded areas will be protected with the use of silt fence or additional control devices if necessary during construction.

2. **Sediment Barriers:** Prior to construction, sediment barriers will be installed downgradient of all disturbed areas. Sediment barriers will include silt fence, bark mulch berms, or additional measures which may become necessary.

   Sediment barriers will also be installed adjacent to any significant natural drainage channel, not otherwise protected. All installed sediment barriers will be maintained until disturbed areas are permanently stabilized.

3. **Temporary Stabilization:** Disturbed areas, which have lost natural vegetation cover, and will not be worked for more than seven days, will be temporarily stabilized. Areas within 75 feet of a wetland or waterbody will be stabilized within 48 hours of the initial disturbance or prior to any significant storm event, whichever comes first.

   Temporary stabilization will include mulch or other non-erodible material such as erosion control mesh mats. In some instances temporary stabilization may include temporary mulch and seeding, based on the time until the area will be worked or permanently stabilized.

4. **Removal of Temporary Sediment Control Measures:** After permanent stabilization of disturbed areas has been completed, temporary measures, such as silt fence, will be removed within 30 days. Any accumulated sediments will be removed and any disturbed areas permanently stabilized.

5. **Permanent Stabilization:** Once proposed construction is completed all disturbed areas, not otherwise permanently stabilized, will be permanently stabilized with vegetation, seeding, or permanent mulch.

   Vegetation plantings and seeding will include species which are suitable for the conditions of the area. Seeded areas will be protected with temporary mulch or erosion control blankets.

   Concentrated flows will not be allowed on newly seeded areas until an adequate catch of vegetation is established. It may be necessary to reseed and mulch again if germination is sparse, plant coverage is spotty, or topsoil erosion is evident. For seeded areas, permanent stabilization means a 90% cover of healthy plants with no evidence of washing or rilling of the topsoil.

Other permanent measures associated with the project include the following:

A. Permanent Mulch: Permanent mulching means total coverage of exposed area with an approved mulch material. Erosion control mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.

B. Permanent Riprap: Permanent riprap means that slopes and ditches stabilized with riprap have an appropriate backing of well-graded gravel or approved geotextile to prevent soil movement from behind the riprap. Properly sized angular stones will be utilized.

C. Permanent Ditches, Channels, and Swales: Permanent stabilization means the channel is stabilized with a 90% cover of healthy vegetation or with a well-graded riprap lining. There must be no evidence of slumping of the channel lining, undercutting of the channel banks, or down-cutting of the channel.

6. **Winter Construction:** At this time no earthwork is expected during the Winter months. If unexpected Winter construction occurs, additional provision will be made to protect disturbed areas from runoff. "Winter construction" includes the time between November 1 and April 15.

7. **Stormwater Channels:** Ditches, swales, and open stormwater channels are planned as part of this project. They will be stabilized with either vegetation or riprap depending on the situation to prevent soil erosion.

8. **Roads:** The proposed entrance driveway will be treated by various BMPs.

9. **Culverts:** Culverts utilized in this project will be protected on both ends and the outlet pool to prevent scour.

10. **Parking Areas:** The proposed project includes parking areas graded to collect runoff in the various proposed BMPs.

11. **Additional Requirements:** No additional requirements are proposed at this time.

INSPECTION AND MAINTENANCE

Maintenance Plan

The Owner and their Contractor will be responsible for maintenance of stormwater and erosion and sedimentation control measures during the construction of the facility. The Owner will be responsible for post construction maintenance of the site and the devices that provide treatment for the stormwater from the site as well as erosion and sedimentation control measures on the site.

A Pre- and Post-Construction Maintenance Plan for the stormwater management system is included in this section. Any questions regarding the design and maintenance of the Stormwater Management and Erosion and Sedimentation Control Systems should be directed to:

Sean Thies, P.E.
CES, Inc.
P.O. Box 639
Brewer, ME 04412

MAINTENANCE PLAN OF STORMWATER MANAGEMENT SYSTEM

The Maine Department of Environmental Protection's (MDEP) Stormwater Management for Maine: Best Management Practices latest edition, and the MDEP's Chapter 500: Stormwater Management were used as guidelines in the development of this Maintenance Plan. General maintenance requirements are listed below.

A. DURING CONSTRUCTION

The general contractor will be responsible for the inspection and maintenance of all stormwater management system components during construction.

Inspection: Inspection of disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site will be performed at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures. Inspections shall be conducted by a person with knowledge of erosion and stormwater control, including the standards and conditions in the permit.

Maintenance: All erosion control measures will be kept in effective operating condition until areas are permanently stabilized. If BMPs need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation will be completed within seven calendar days and prior to any rainfall event.

Documentation: A log shall be kept summarizing the inspections and any corrective action taken. A copy of the log is provided at the end of this section, and is titled, *Construction Inspection Log*.

B. POST-CONSTRUCTION

The Owner will be responsible for the inspection and maintenance of all stormwater management system components associated with the proposed project.

Inspection and Corrective Action

1. Vegetated Areas: Inspections and maintenance of vegetated areas will be performed early in the growing season or after significant rainfall to identify any erosion problems. Areas where erosion is evident will be covered with an appropriate lining, or erosive flows will be diverted to an area able to handle the flows. Any bare areas or areas with sparse growth will be replanted.

2. **Stormwater Underdrain Soil Filters:** Maintenance of the underdrain soil filters built for the treatment of stormwater will at a minimum include the items listed below.

    a. Soil Filter Inspection: The soil filter should be inspected after every major storm in the first few months to ensure proper function. Thereafter, the filter should be inspected at least once every six months to ensure that it is draining within 48 hours following a 1 inch or greater rain storm: and that, following storms that fill the area to overlow, the area must drain in no less than 36 to 60 hours. If the system drains too fast, the orifice on the underdrain outlet may need to be modified.

b. Soil Filter Replacement: The vegetation within the underdrain soil filter shall be rototilled if the filter area does not drain within 48 hours. The top several inches of the filter shall be replaced with fresh material when water ponds on the surface of the bed for more than 72 hours. The removed sediments should be disposed in an acceptable manner.

c. Sediment Removal: Sediment and plant debris should be removed from the pretreatment structure at least annually.

d. Mowing: Filters with grass cover should be mowed no more than two times per growing season to maintain grass heights less than 12-inches.

e. Fertilization: Fertilization of the underdrained filter area should be avoided unless absolutely necessary to establish vegetation.

f. Harvesting and Weeding: Harvesting and pruning of excessive growth will need to be done occasionally. Weeding to control unwanted or invasive plants may also be necessary. Add new mulch as necessary for bioretention cell.

g. Roadway: Sweeping of the roadways may be necessary to remove and legally dispose of any accumulated sediments.

C. DOCUMENTATION

A log shall be kept summarizing the inspections, maintenance, and any corrective action taken. A copy of the log is provided at the end of this section, and is titled, BMP Inspection Log.

HOUSEKEEPING

The following performance standards are proposed for the project.

1. **Spill Prevention:** Controls must be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.

2. **Groundwater Protection:** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An “infiltration area” is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.

3. **Fugitive Sediment and Dust:** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control. Operations during wet months that experience tracking of mud off the site onto public roads should provide for sweeping of road areas at least once a week and prior to significant storm events. Where chronic mud tracking occurs, a stabilized construction entrance should be provided. Operations during dry months, that experience fugitive dust problems, should wet down the access roads once a week or more frequently as needed.

4. **Debris and Other Materials:** Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

5. **Trench or Foundation De-Watering:** Trench de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoidance measures shall be implemented to prevent water from flowing over disturbed areas of the site. Equivalent measures may be taken if approved by the department.

6. **Non-Stormwater Discharges:** Identify and prevent contamination by non-stormwater discharges.

7. **Additional Requirements:** Additional requirements may be applied on a site-specific basis.

ATTACHMENT 18B

STORMWATER QUALITY CONTROL NARRATIVE

ATTACHMENT 18B

STORMWATER QUALITY CONTROL NARRATIVE

The proposed development will be located on a parcel of land in Hampden approximately 90 acres in size. The existing site of the development is undeveloped and covered mainly by woodland. Shaw Brook is classified as an Urban Impaired Stream and is located to the west of the proposed parcel. Runoff from the site generally drains to a large forested wetland area to the south of the parcel before eventually discharging to the Penobscot River. Runoff from the proposed parcel does not discharge to Shaw Brook. The proposed development includes the construction of a 144,000 square foot processing building, a 9,800 square foot administrative building, scales and scale shack, and associated parking and maneuvering areas. The Chapter 500 Stormwater Management Standards require this project to meet basic, general, and flooding standards. Basic standards as outlined in Attachment 18A include: erosion and sedimentation control; inspection; and maintenance and housekeeping; respectively.

General standards require a minimum of 95% of the impervious area and 80% of the developed area associated with a project to receive treatment measures. This project proposes to treat the new development by utilizing a combination of three vegetated underdrained soil filters (VUDSF) and a roofline drip edge filter per the Maine Department of Environmental Protection's (MDEP) Stormwater BMP Manual. Treating approximately 266,661 square feet of impervious area and 379,338 square feet of developed area is 100% of the proposed project impervious area and 89.58% of the proposed project developed area. The following charts summarize the impervious and developed area proposed to be permitted by the project, as well as the treatment structure, area treated, and relationship with the total developed and impervious areas for the project.

PROJECT AREA	IMPERVIOUS AREA	DEVELOPED AREA
Proposed Site Area	266,661 SF	423,444 SF
Total	**266,661 SF**	**423,444 SF**

TREATMENT METHOD	IMPERVIOUS AREA TREATED	DEVELOPED AREA TREATED
VUDSF 1	94,425 SF	140,184 SF
VUDSF 2	56,218 SF	110,958 SF
VUDSF 3	50,574 SF	59,924 SF
Roof Dripline Filter	65,444 SF	68,272 SF
Total Area Treated	**266,661SF**	**379,338 SF**
Percent Treated of Areas	**100%**	**89.58%**

A description of the treatment systems are as follows.

1. **Underdrained Soil Filter 1:**
   Impervious Area: 94,425 SF
   Landscaped Area: 45,759 SF

Chapter 500 sizing is based on 1" × the impervious area + 0.4" × the landscape area.
94,425 SF x 1" = 7,869 CF of Required Storage
45,759 SF x 0.4" = 1,525 CF of Required Storage
9,394 CF of Required Storage. 9,851 CF was provided by design.

Surface Area of filter is based on 5% x impervious area + 2% x landscape are.
94,425 SF x .05 = 4,722
45,759 SF x .02 = 916
5,638 SF of Required Filter Area. 5,700 SF was provided by design.

2. **Underdrained Soil Filter 2:**
Impervious Area: 50,574 SF
Landscaped Area: 9,350 SF

Chapter 500 sizing is based on 1" × the impervious area + 0.4" × the landscape area.
50,574 SF x 1" = 4,215 CF of Required Storage
9,350 SF x 0.4" = 312 CF of Required Storage
4,527 CF of Required Storage. 8,134 CF was provided by design.

Surface Area of filter is based on 5% x impervious area + 2% x landscape are.
50,574 SF x .05 = 2,529
9,350 SF x .02 = 187
2,716 SF of Required Filter Area. 2,750 SF was provided by design.

3. **Underdrained Soil Filter 3:**
Impervious Area: 56,218 SF
Landscaped Area: 54,740 SF

Chapter 500 sizing is based on 1" × the impervious area + 0.4" × the landscape area.
56,218 SF x 1" = 4,685 CF of Required Storage
54,740 SF x 0.4" = 1,825 CF of Required Storage
6,510 CF of Required Storage. 7,578 CF was provided by design.

Surface Area of filter is based on 5% x impervious area + 2% x landscape are.
56,218 SF x .05 = 2,811
54,740 SF x .02 = 1,095
3,906 SF of Required Filter Area. 3,950 SF was provided by design.

4. **Roof Dripline Filter:** A roof dripline will be constructed along most of the southern edge of the proposed building. The size of the dripline was determined by the requirement that storage was needed to meet the flooding standards. At 40% porosity, the minimum crushed rock treatment storage area required is 5.5-feet wide by 5-feet deep. This is what was provided by design.

The proposed stormwater quality control devices have been designed according to the standards outlined in the *Stormwater Management for Maine, Volume III BMP Manual*, January 2006 and revised April 2007. Construction and maintenance will be according to standards outlined in this manual.

ATTACHMENT 20

UTILITIES

WASTEWATER TREATMENT PLANT

Andrew F. Rudzinski, Director
Water Quality Management
andy.rudzinski@bangormaine.gov

February 17, 2016

Travis Noyes, P.E.
CES, Inc.
465 South Main St.
P.O. Box 639
Brewer, ME 04412

RE: NEW SEWER SERVICE FOR FIBERIGHT FACILITY, HAMPDEN

Dear Travis Noyes, P.E.:

We have reviewed the information, provided by you, pertinent to the above subject matter. Information provided, to this point, is limited to an estimated daily flow of 150,000 gpd.

The wastewater treatment plant (WWTP) has capacity, at this time, to accept this additional flow during "dry-weather" (non-CSO) conditions. Flow will be curtailed during CSO events. It will be the responsibility of the user to make alternative arrangements such as on-site storage or trucking to alternative sites during these times.

The user shall meet all requirements of the Federal and State Pretreatment regulations, the Town of Hampden and City of Bangor Sewer Use Ordinance concerning reporting, construction & maintenance, installation of sample points, flow metering devices and other pretreatment controls. The user shall provide access to City & Town personnel for purposes of inspection & sample collection. All such provisions shall be submitted to the Pretreatment Coordinator for pre-approval, including drawings, plans… ect. The user will also be required to provide the City with an Industrial User Permit Application and a Pretreatment Survey & Disclosure form.

Should it be determined that, for any reason whatsoever, adverse effects are noted, or anticipated, at the WWTP, the user shall be required to pre-treat discharge to acceptable levels. Local limits or Categorical limits, as appropriate, shall be met & maintained. Other pollutants of concern shall be monitored as needed. Additionally, flows shall not result in "slug loads" at any time and equalization shall be provided for.

The Town of Hampden & City of Bangor reserve the right to modify, amend or reject any agreement, plan or proposal for the purpose of protecting the integrity of the WWTP, sewer collection system and any and all control mechanisms in existence.

Should you have any questions or comments, please contact me.

Sincerely,

Amanda Smith
Industrial Pretreatment Coordinator
Safety Coordinator
City of Bangor- WWTP
760 Main St.
Bangor, Maine 04401
(207)992-4471
amanda.smith@bangormaine.gov

cc: Angus Jennings – Hampden Town Manager

Sean Currier – Hampden Public Works Director

Andrew Rudzinski – Bangor Director of Water Quality Management

PROPOSED PROPERTY LINE

EXISTING UTILITY EASEMENT

WETLAND FILL AREA
WETLAND IMPACT 'E'
1,855 SF

OUTBOUND SCALE

SCALE HOUSE

INBOUND SCALE

SOLID WASTE SETBACK

TANK

RIP RAP PROTECTION

INV. 142.5

6" HDPE

DRIP STRIP

VUDSF #1

VUDSF #1 OVERFLOW STRUCTURE

VUDSF #1 OUTLET

RIP RAP OUTLET

INV. 143.0

5' PAVED SIDEWALK

PROPOSED SCREENING: MAY INCLUDE NATURAL BUFFERS, BERMS, PLANTINGS, FENCING, OR ANY COMBINATION THEREOF

WETLAND FILL AREA
WETLAND IMPACT 'A'
29,483 SF

WETLAND FILL AREA
WETLAND IMPACT 'D'
2,380 SF

CB P-01
RIM: 147 (APPROXIMATE)

PROPOSED PROCESSING FACILITY
(230' x 626') 144,000 SF
F.F.E. 144.50

RETAINING WALL

PROPOSED ADMIN BUILDING
(64' X 54') 3,456 SF
F.F.E. 144.50

PROPOSED R.O.W.

BUILDING SETBACK

SOLID WASTE SETBACK

LOADING DOCKS

25' STREAM SETBACK

EXISTING STREAM

WETLAND FILL AREA
WETLAND IMPACT 'C'
6,673 SF

OVERHEAD DOOR, TYP.

PROPOSED WATER SERVICE

PROPOSED SEWER SERVICE

PROPOSED 18" HDPE
L: 496 LF / S: 0.005
INV. IN: 139.50
INV. OUT: 137.0

ODOR CONTROL SKID

ROOF DRIP LINE BMP

VUDSF #2

EMERGENCY SPILLWAY

FLOODING CONTROL STRUCTURE

VUDSF #3

WETLAND FILL AREA
WETLAND IMPACT 'F'
103 SF

DRIP EDGE OUTLET WITH RIP RAP PROTECTION

WETLAND FILL AREA
WETLAND IMPACT 'B'
5,322 SF

VUDSF #2 OUTLET

RIP RAP OUTLET

DRIP EDGE OUTLET WITH RIP RAP PROTECTION

NATURAL GAS INJECTION LINE

PROPOSED PLUNGE POOL

FLOODING CONTROL STRUCTURE

40' FLARE SETBACK

80' FLARE SETBACK

50' FLARE SETBACK

WETLAND CLEARING AREA 'H'
WETLAND IMPACT 835 SF

WETLAND CLEARING AREA 'G'
WETLAND IMPACT 838 SF

VUDSF #3 OUTLET

RIP RAP OUTLET

END OF EXISTING GRAVEL ROAD

LEGEND:

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
OVERHEAD UTILITY	OHU	
GAS LINE	GAS	GAS
SETBACK		
EDGE OF PAVEMENT		
WATER LINE		W
SANITARY SEWER		SS
CENTERLINE		
VISUAL SCREEN		X
SILT FENCE		SF
MAJOR FOOT CONTOUR	100	
MINOR FOOT CONTOUR	98	
APPROXIMATE WETLAND BOUNDARY		
APPROXIMATE STREAM LOCATION		
TREE LINE		

PROPOSED SITE PLAN
FOR
SOLID WASTE PROCESSING FACILITY
HAMPDEN, MAINE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

Presque Isle
543 Main Street
PO Box 827
Presque Isle, ME
T 207-764-8412
F 207-764-8414

Bar Harbor
36 Cottage Park Way 102
Bar Harbor, ME
T 207-288-0587
F 207-288-0588

Waterville
44 Main Street
Suite 204
Waterville, ME
T 207-680-2252
F 207-680-2204

Lewiston
444 Lisbon Street
Lewiston, ME
T 207-795-6009
F 207-795-6108

Bangor
81 South Main Street
PO Box 928
Bangor, ME
T 207-989-4824
F 207-989-4881

Machias
35 Center Street
PO Box 587
Machias, ME
T 207-255-8270
F 207-255-8367

CES INC
Engineers • Environmental Scientists • Surveyors

PROJECT TITLE
MRC / FIBERIGHT SOLID WASTE PROCESSING FACILITY
HAMPDEN, MAINE

SHEET TITLE
PROPOSED SITE PLAN

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
R1				
R2				
R3				
R4				
R5				
R6				
R7				

STATE OF MAINE
SEAN M. THIES
No. 10139
02/08/2016
LICENSED
PROFESSIONAL ENGINEER

SCALE	1"=40'
DATE	2015-12-10
DRAWN BY	BLQ/WAB
CHECKED BY	SMT
DESIGNED BY	BLQ/SMT
APPROVED BY	SMT
JOB NUMBER	10973.003

DRAWING NUMBER
C101

ATTACHMENT 21

FLOODING

ATTACHMENT 21

FLOODING
STORMWATER MANAGEMENT QUANTITY REPORT

As shown on the included Flood Insurance Map, the Fiberight facility is not located in, or within ¼ mile, of the 100 year flood plain.

Consistent with Department regulations, a 25-year, 24-hour storm event was modeled to determine the necessary detention and outlet sizing requirements. Stormwater modeling was completed using HydroCAD software. Included in this Attachment are the HydroCAD software results for the 2-year, 10-year, and 25-year storm events, the Pre and Post Stormwater Hydrology Plans, and a narrative describing the pre and post hydrology calculations. The Proposed Site Plan included in Attachment 12 outlines the proposed development. The pre and post development conditions for the project are described below. The following narratives, calculations, and plans address the requirements of Chapter 400.4.M.2(b-i).

PRE DEVELOPMENT/EXISTING CONDITIONS

The proposed development will be located on a parcel of land in Hampden approximately 90 acres in size. The parcel is undeveloped and covered mainly by woodland. Shaw Brook is classified as an Urban Impaired Stream and is located approximately 3,000 feet to the west of the existing parcel. Runoff from the site generally drains to a large forested wetland area to the south of the parcel before eventually draining to the Penobscot River. Runoff from the proposed parcel does not drain to Shaw Brook. Similarly, in the post development conditions, the runoff will not drain to Shaw Brook.

PRE DEVELOPMENT DRAINAGE

The attached predevelopment hydrology plan shows four drainage areas for the portion of the site studied. The area south of the development was not studied as this portion of the site is not proposed to be developed as part of this application. All four subareas are comprised mostly of wooded areas and all drain toward the south.

POST DEVELOPMENT/PROPOSED CONDITIONS

The proposed development includes the construction of a 144,000 square foot processing building, a 9,800 square foot administrative building, scales and scale house, and associated parking and maneuvering areas. The proposed development will be built over a portion of previously undeveloped land and will add approximately 9.7 acres of developed area to the existing site. The development will be treated with a combination of three vegetated underdrained soil filters and a roofline drip edge filter. All of these treatment measures discharge toward the south and west ends of the site before re-joining the pre-development flow paths.

POST DEVELOPMENT DRAINAGE

The attached post developed hydrology plan shows eight drainage areas**. Subarea 1** includes the wooded area north of the proposed development and drains southerly to a proposed grassed swale along the north side of the driveway. The grass swale delivers stormwater runoff from the wooded area to a culvert under the driveway where it discharges near the outlet for VUDSF #3. **Subarea 2** includes the employee parking, Administrative Building, and portions of the Process Building, driveway, and access road. Stormwater from this area will flow toward a

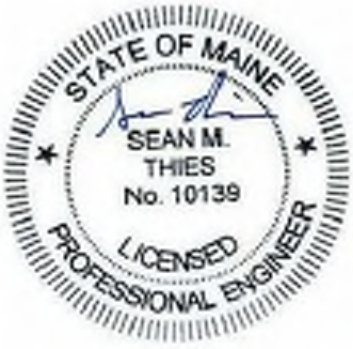
grassed swale to the west of the Administrative Building which will discharge to a vegetated underdrained soil filter for treatment. **Subareas 3a and 3b** include most of the southern half of the Process Building roof. Stormwater from the roof will drain to the south and be captured in a roofline drip edge filter for treatment prior to discharging offsite. **Subarea 4** includes the scales, and portions of the northern half of the Process Building roof, driveway, and tank area. Stormwater from this area will flow toward the grassed area between the driveway and the building where it will be collected in a vegetated underdrained soil filter prior to discharging offsite. **Subarea 5** includes a mostly wooded area to the northeast of the proposed development. Stormwater from this area generally drains toward the south before being diverted around the driveway and maneuvering areas by a vegetated ditch prior to joining a wetland area to the east of the site. **Subarea 6** includes the truck maneuvering areas for the loading/unloading area. This area is predominantly paved and stormwater will flow toward the south where it will be collected in a vegetated underdrained soil filter prior to being discharged offsite. **Subarea 7** includes the wooded area to the south of the facility. Stormwater will generally sheet flow to the southwest toward the existing forested wetland area as it did prior to the development. **Subarea 8** includes the wooded area to the southwest of the facility. Stormwater will generally sheet flow to the southwest toward the existing forested wetland area as it did prior to the development. **Subarea 9** includes vegetated area between the northwest side of the proposed processing facility and the proposed roadway. Runoff from the area drains southwesterly along the proposed roadway to a freshwater wetland south of the project site area.

A comparison of pre and post development flows for the project at the analysis point follows.

24 HOUR, TYPE III DURATION STORM			
	2 YEAR PRE/POST (CFS)	**10 YEAR PRE/POST (CFS)**	**25 YEAR PRE/POST (CFS)**
Summation Point 1	6.98/5.85	15.20/14.85	19.63/17.59
Summation Point 2	3.85/3.60	8.39/8.16	10.83/10.81

POST DEVELOPMENT ANALYSIS

The results of the analysis for this site indicate that there is a reduction in runoff from both summation points, and that all of the stormwater treatment measures are sized adequately to handle storm water runoff from 2, 10, and 25-year storm events. Accordingly, there are no anticipated adverse impacts to the down-gradient areas, and as a result the development will have no unreasonable effect on run-on, run-off, and/or infiltration relationships on-site or on adjacent properties.



OUTLET PROTECTION

FOR A PIPE FLOWING FULL WITH LOW TAILWATER

RIPRAP SIZE - D50 (inches)

PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	4											
5cfs	4											
8cfs	5	4										
10cfs	6	5	4									
12cfs	8	6	6									
15cfs	8	6	8	5								
17cfs		8	8	5								
20cfs		10	10	6	5							
25cfs		12	12	6	6							
30cfs				8	8	6						
40cfs				12	10	8	6					
50cfs				16	12	10	8	6				
60cfs				18	16	12	10	8				
70cfs					18	15	12	8				
80cfs					20	16	15	10	8			
90cfs						18	16	12	10			
100cfs						20	18	12	10			
125cfs						24	20	16	12	10		
150cfs							24	20	16	12	10	
200cfs								24	20	18	15	12

TANK POND 6" OUTLET

0.71 CFS

MINIMUM LENGTH OF APRON (FEET)

PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	8											
5cfs	8											
8cfs	11	10										
10cfs	14	12	10									
15cfs	18	16	14	12								
20cfs		18	18	16	12							
30cfs			22	20	18	16						
40cfs			26	24	24	20	18					
50cfs				26	26	24	22	18				
70cfs					30	30	28	25				
100cfs						36	36	33	27			
150cfs						42	42	42	38	33	28	
200cfs								48	45	42	37	32

From USDA Soild Conservation Service

OUTLET PROTECTION

FOR A PIPE FLOWING FULL WITH LOW TAILWATER

RIPRAP SIZE - D50 (inches)

PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	4											
5cfs	4											
8cfs	5	4										
10cfs	6	5	4									
12cfs	8	6	6									
15cfs	8	6	8	5								
17cfs		8	8	5								
20cfs		10	10	6	5							
25cfs		12	12	6	6							
30cfs				8	8	6						
40cfs				12	10	8	6					
50cfs				16	12	10	8	6				
60cfs				18	16	12	10	8				
70cfs					18	15	12	8				
80cfs					20	16	15	10	8			
90cfs						18	16	12	10			
100cfs						20	18	12	10			
125cfs						24	20	16	12	10		
150cfs							24	20	16	12	10	
200cfs								24	20	18	15	12

12" OUTLET FROM GUSF #1

1.55 CFS

MINIMUM LENGTH OF APRON (FEET)

PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	8											
5cfs	8											
8cfs	11	10										
10cfs	14	12	10									
15cfs	18	16	14	12								
20cfs		18	18	16	12							
30cfs			22	20	18	16						
40cfs			26	24	24	20	18					
50cfs				26	26	24	22	18				
70cfs					30	30	28	25				
100cfs						36	36	33	27			
150cfs						42	42	42	38	33	28	
200cfs								48	45	42	37	32

From USDA Soild Conservation Service

OUTLET PROTECTION

FOR A PIPE FLOWING FULL WITH LOW TAILWATER

RIPRAP SIZE - D50 (inches)

PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	4											
5cfs	4											
8cfs	5	4										
10cfs	6	5	4									
12cfs	8	6	6									
15cfs	8	6	8	5								
17cfs		8	8	5								
20cfs		10	10	6	5							
25cfs		12	12	6	6							
30cfs				8	8	6						
40cfs				12	10	8	6					
50cfs				16	12	10	8	6				
60cfs				18	16	12	10	8				
70cfs					18	15	12	8				
80cfs					20	16	15	10	8			
90cfs						18	16	12	10			
100cfs						20	18	12	10			
125cfs						24	20	16	12	10		
150cfs							24	20	16	12	10	
200cfs								24	20	18	15	12

12" OUTLET FROM GUSF # 2

0.32 CFS

MINIMUM LENGTH OF APRON (FEET)

PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	8											
5cfs	8											
8cfs	11	10										
10cfs	14	12	10									
15cfs	18	16	14	12								
20cfs		18	18	16	12							
30cfs			22	20	18	16						
40cfs			26	24	24	20	18					
50cfs				26	26	24	22	18				
70cfs					30	30	28	25				
100cfs						36	36	33	27			
150cfs						42	42	42	38	33	28	
200cfs								48	45	42	37	32

From USDA Soild Conservation Service

OUTLET PROTECTION

FOR A PIPE FLOWING FULL WITH LOW TAILWATER

RIPRAP SIZE - D50 (inches)

PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	4											
5cfs	4											
8cfs	5	4										
10cfs	6	5	4									
12cfs	8	6	6									
15cfs	8	6	8	5								
17cfs		8	8	5								
20cfs		10	10	6	5							
25cfs		12	12	6	6							
30cfs				8	8	6						
40cfs				12	10	8	6					
50cfs				16	12	10	8	6				
60cfs				18	16	12	10	8				
70cfs					18	15	12	8				
80cfs					20	16	15	10	8			
90cfs						18	16	12	10			
100cfs						20	18	12	10			
125cfs						24	20	16	12	10		
150cfs							24	20	16	12	10	
200cfs								24	20	18	15	12

12" OUTLET FROM GUSF #3

5.12 CFS

MINIMUM LENGTH OF APRON (FEET)

PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	8											
5cfs	8											
8cfs	11	10										
10cfs	14	12	10									
15cfs	18	16	14	12								
20cfs		18	18	16	12							
30cfs			22	20	18	16						
40cfs			26	24	24	20	18					
50cfs				26	26	24	22	18				
70cfs					30	30	28	25				
100cfs						36	36	33	27			
150cfs						42	42	42	38	33	28	
200cfs								48	45	42	37	32

From USDA Soild Conservation Service

OUTLET PROTECTION

FOR A PIPE FLOWING FULL WITH LOW TAILWATER

RIPRAP SIZE - D50 (inches)

PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	4											
5cfs	4											
8cfs	5	4										
10cfs	6	5	4									
12cfs	8	6	6									
15cfs	8	6	8	5								
17cfs		8	8	5								
20cfs		10	10	6	5							
25cfs		12	12	6	6							
30cfs				8	8	6						
40cfs				12	10	8	6					
50cfs				16	12	10	8	6				
60cfs				18	16	12	10	8				
70cfs					18	15	12	8				
80cfs					20	16	15	10	8			
90cfs						18	16	12	10			
100cfs						20	18	12	10			
125cfs						24	20	16	12	10		
150cfs							24	20	16	12	10	
200cfs								24	20	18	15	12

6" OUTLET FROM ROOF DRIPLINE

1.73 CFS

MINIMUM LENGTH OF APRON (FEET)

PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	8											
5cfs	8											
8cfs	11	10										
10cfs	14	12	10									
15cfs	18	16	14	12								
20cfs		18	18	16	12							
30cfs			22	20	18	16						
40cfs			26	24	24	20	18					
50cfs				26	26	24	22	18				
70cfs					30	30	28	25				
100cfs						36	36	33	27			
150cfs						42	42	42	38	33	28	
200cfs								48	45	42	37	32

From USDA Soild Conservation Service

OUTLET PROTECTION

FOR A PIPE FLOWING FULL WITH LOW TAILWATER

RIPRAP SIZE - D50 (inches)
PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	4											
5cfs	4											
8cfs	5	4										
10cfs	6	5	4									
12cfs	8	6	6									
15cfs	8	6	8	5								
17cfs		8	8	5								
20cfs		10	10	6	5							
25cfs		12	12	6	6							
30cfs				8	8	6						
40cfs				12	10	8	6					
50cfs				16	12	10	8	6				
60cfs				18	16	12	10	8				
70cfs					18	15	12	8				
80cfs					20	16	15	10	8			
90cfs						18	16	12	10			
100cfs						20	18	12	10			
125cfs						24	20	16	12	10		
150cfs							24	20	16	12	10	
200cfs								24	20	18	15	12

6" OUTLET FROM ROOF DRIPLINE

1.16 CFS

MINIMUM LENGTH OF APRON (FEET)
PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	8											
5cfs	8											
8cfs	11	10										
10cfs	14	12	10									
15cfs	18	16	14	12								
20cfs		18	18	16	12							
30cfs			22	20	18	16						
40cfs			26	24	24	20	18					
50cfs				26	26	24	22	18				
70cfs					30	30	28	25				
100cfs						36	36	33	27			
150cfs						42	42	42	38	33	28	
200cfs								48	45	42	37	32

From USDA Soild Conservation Service

OUTLET PROTECTION

FOR A PIPE FLOWING FULL WITH LOW TAILWATER

RIPRAP SIZE - D50 (inches)

PIPE DIAMETER

DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	4											
5cfs	4											
8cfs	5	4										
10cfs	6	5	4									
12cfs	8	6	6									
15cfs	8	6	8	5								
17cfs		8	8	5								
20cfs		10	10	6	5							
25cfs		12	12	6	6							
30cfs				8	8	6						
40cfs				12	10	8	6					
50cfs				16	12	10	8	6				
60cfs				18	16	12	10	8				
70cfs					18	15	12	8				
80cfs					20	16	15	10	8			
90cfs						18	16	12	10			
100cfs						20	18	12	10			
125cfs						24	20	16	12	10		
150cfs							24	20	16	12	10	
200cfs								24	20	18	15	12

18" OUTLET FROM POND BYPASS

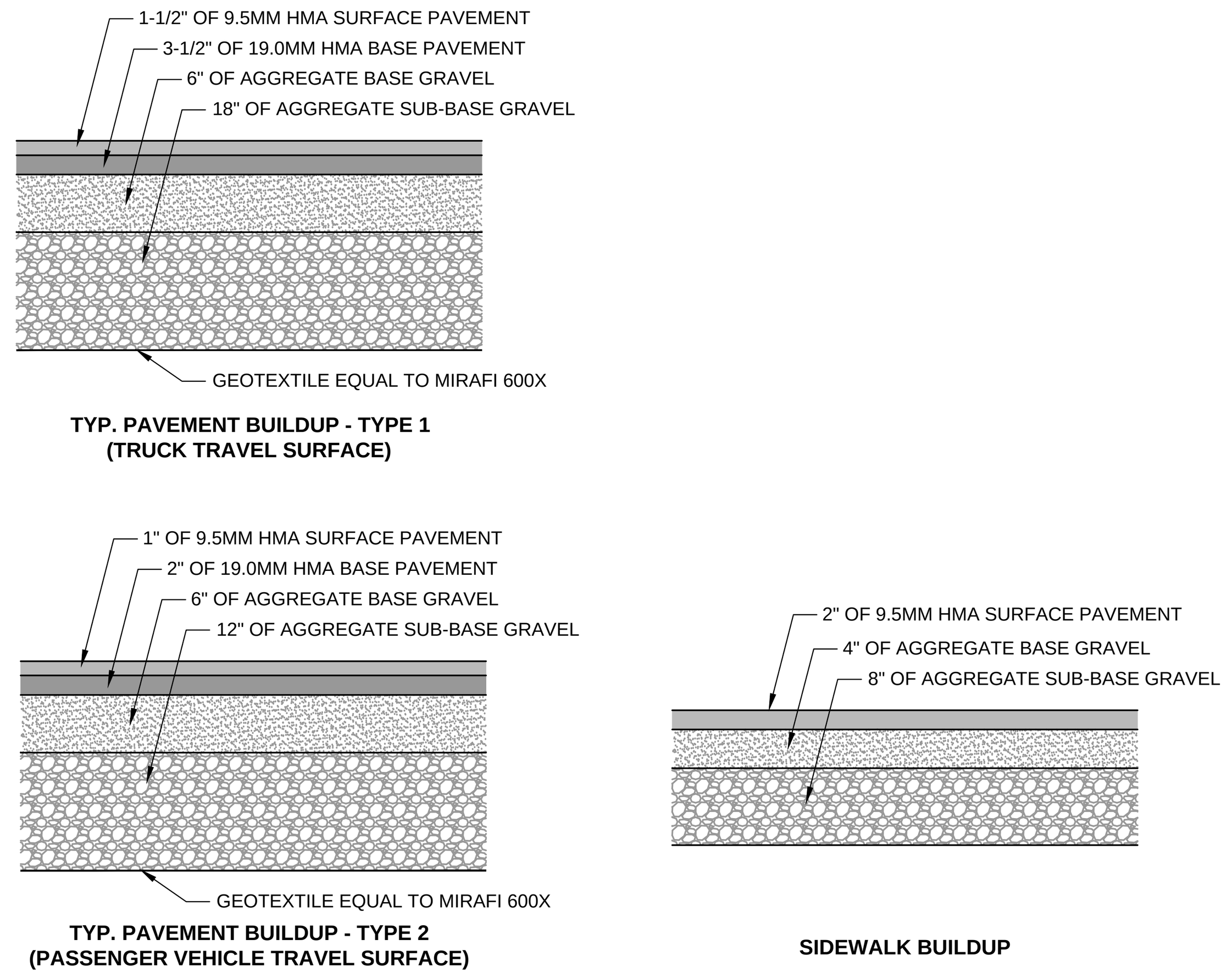
10.69 CFS

MINIMUM LENGTH OF APRON (FEET)

PIPE DIAMETER

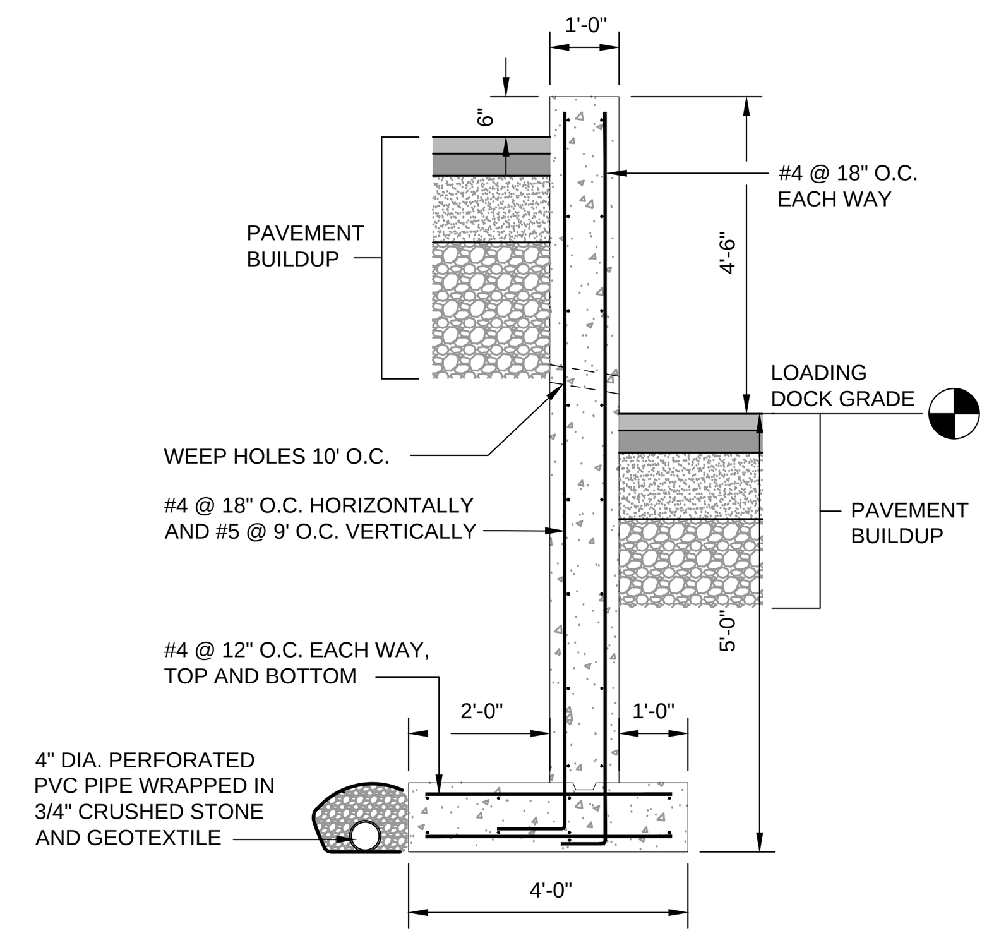
DISCHARGE	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
3cfs	8											
5cfs	8											
8cfs	11	10										
10cfs	14	12	10									
15cfs	18	16	14	12								
20cfs		18	18	16	12							
30cfs			22	20	18	16						
40cfs			26	24	24	20	18					
50cfs				26	26	24	22	18				
70cfs					30	30	28	25				
100cfs						36	36	33	27			
150cfs						42	42	42	38	33	28	
200cfs								48	45	42	37	32

From USDA Soild Conservation Service



TYPICAL ROADWAY/SIDEWALK BUILDUP DETAIL

N.T.S.



TYPICAL RETAINING WALL DETAIL

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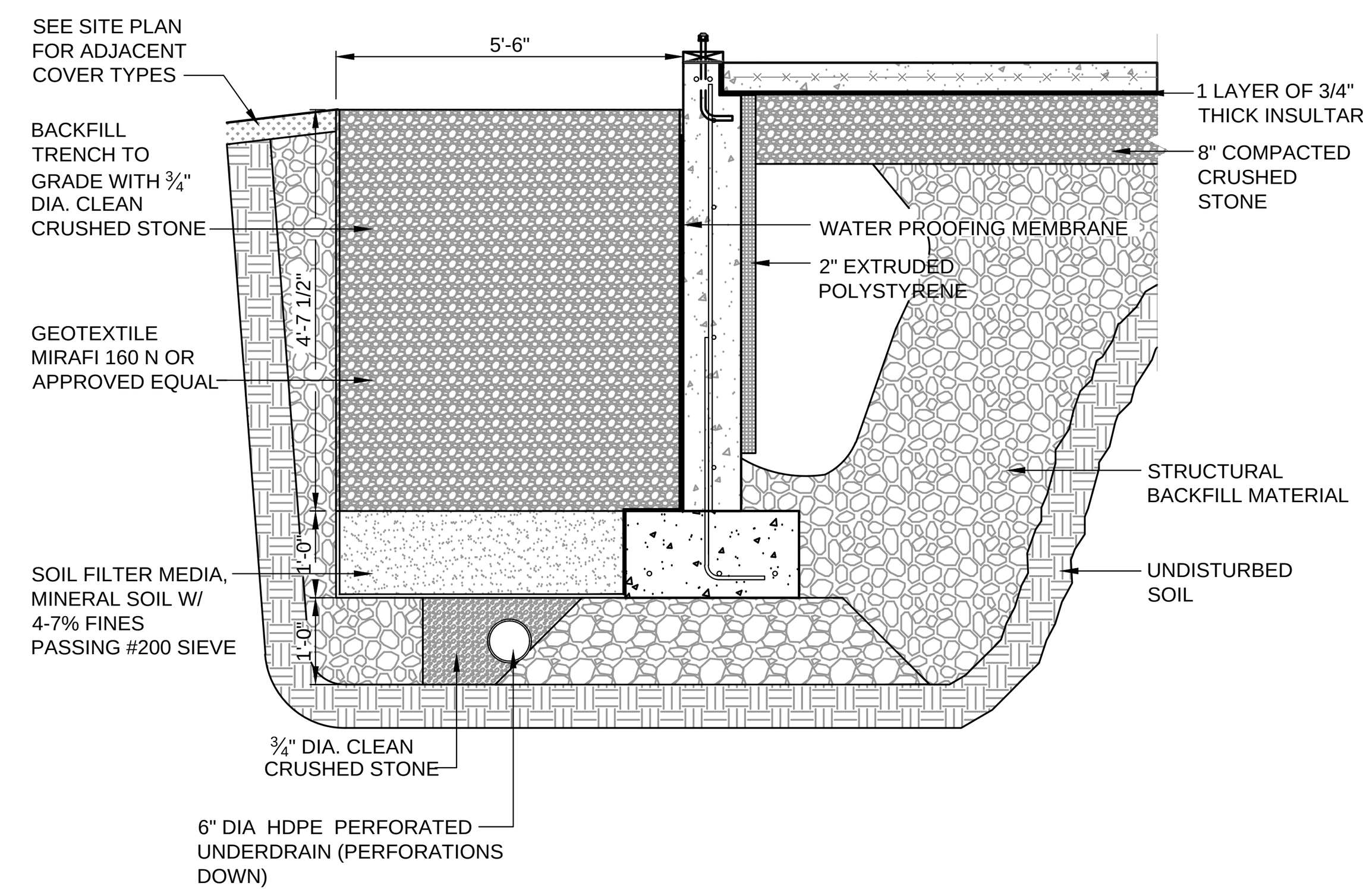

TYPICAL FROST WALL BACKFILL & DRIP LINE BMP DETAIL

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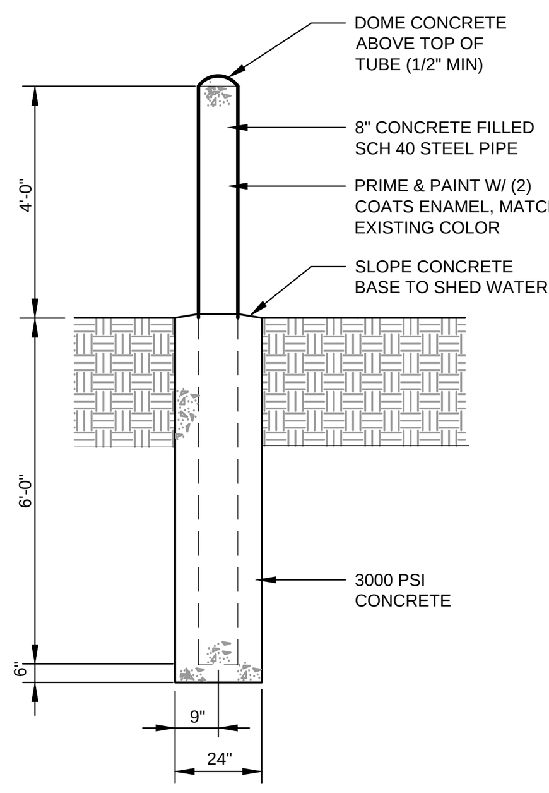

STEEL BOLLARD DETAIL

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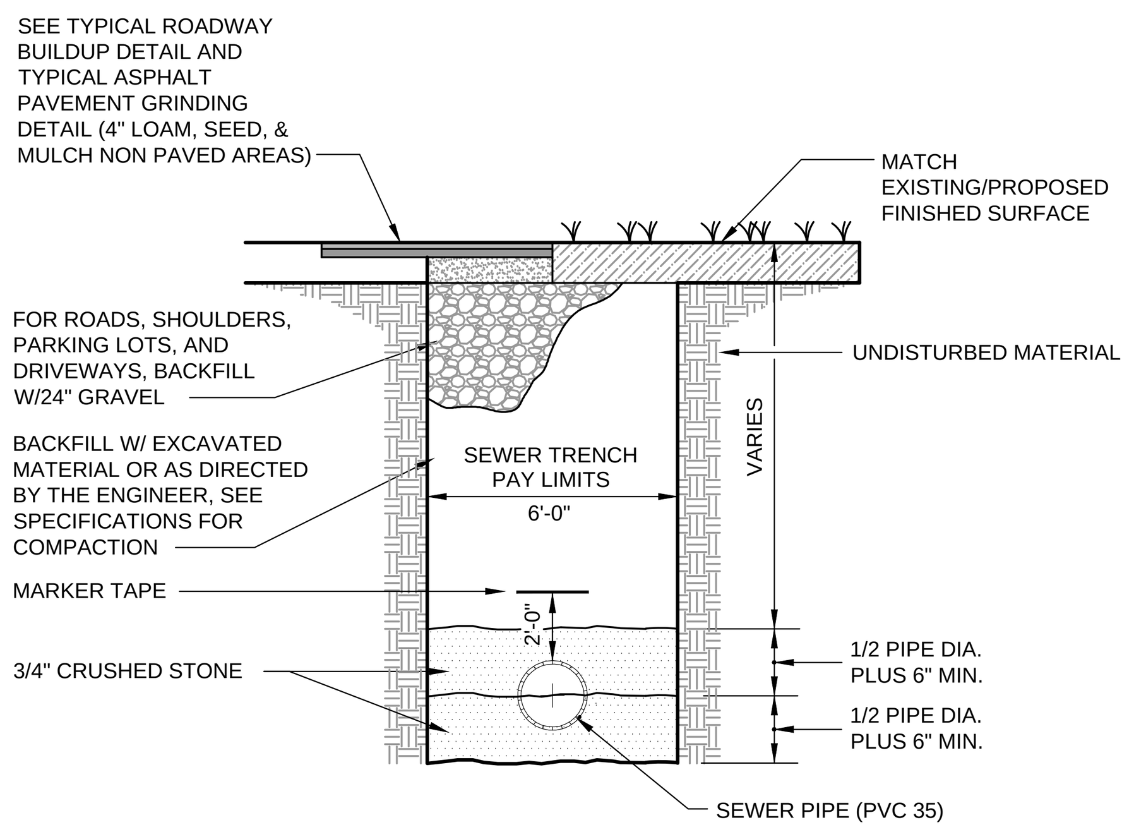
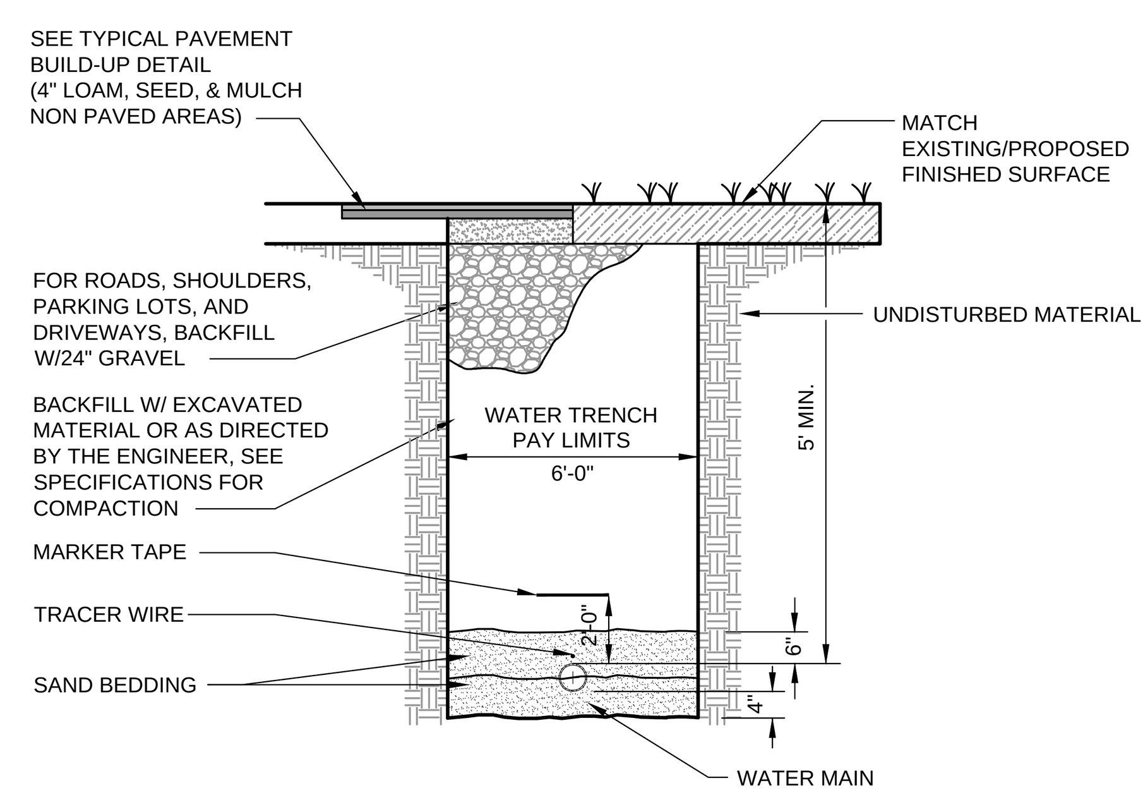


NOTE:

1. MATCH EXISTING SURFACE FINISH, EXCEPT WHERE NOTED.
IN LAWN AREAS INSTALL 4" OF LOAM AND SEED AND MULCH.

TYPICAL SEWER TRENCH DETAIL

N.T.S.

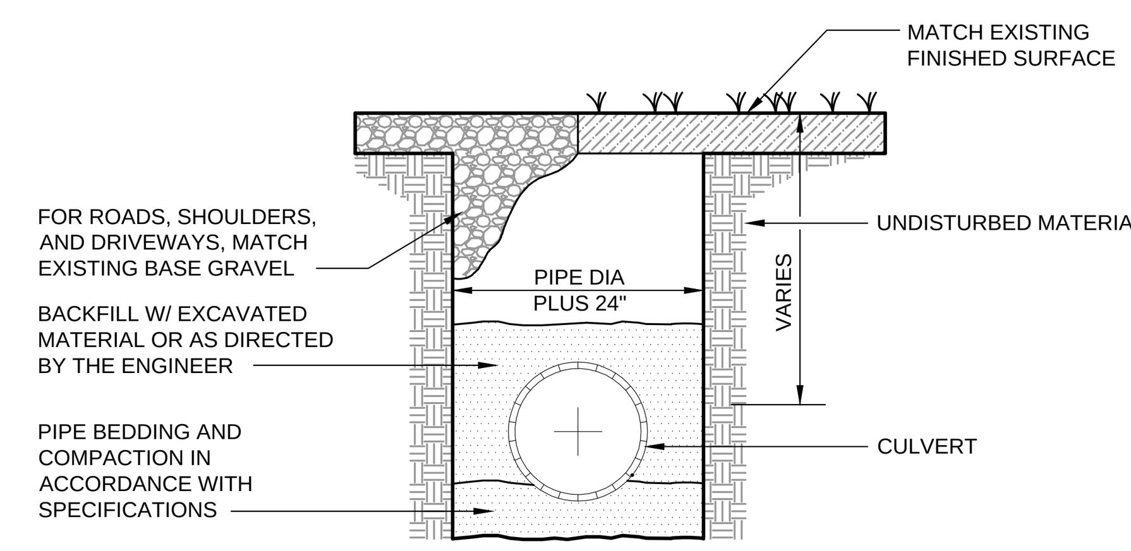


NOTE:

1. MATCH EXISTING SURFACE FINISH, EXCEPT WHERE NOTED. IN LAWN AREAS INSTALL 4" OF LOAM AND SEED AND MULCH.

TYPICAL TRENCH DETAIL - WATER MAIN

N.T.S.

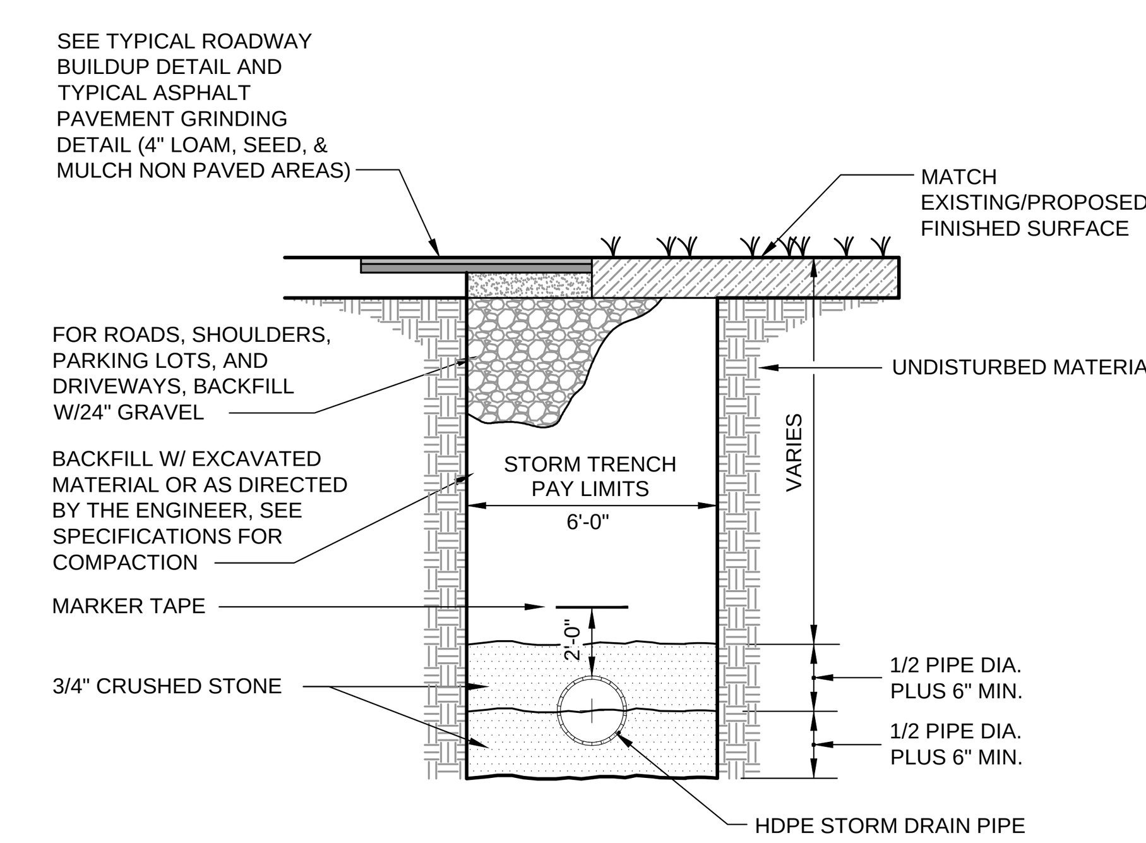


NOTE:

1. PAYMENT LIMITS SHALL BE 6' WIDE (3' EACH SIDE OF CULVERT)

TYPICAL CULVERT TRENCH DETAIL

NTS



TYPICAL STORM DRAIN TRENCH DETAIL

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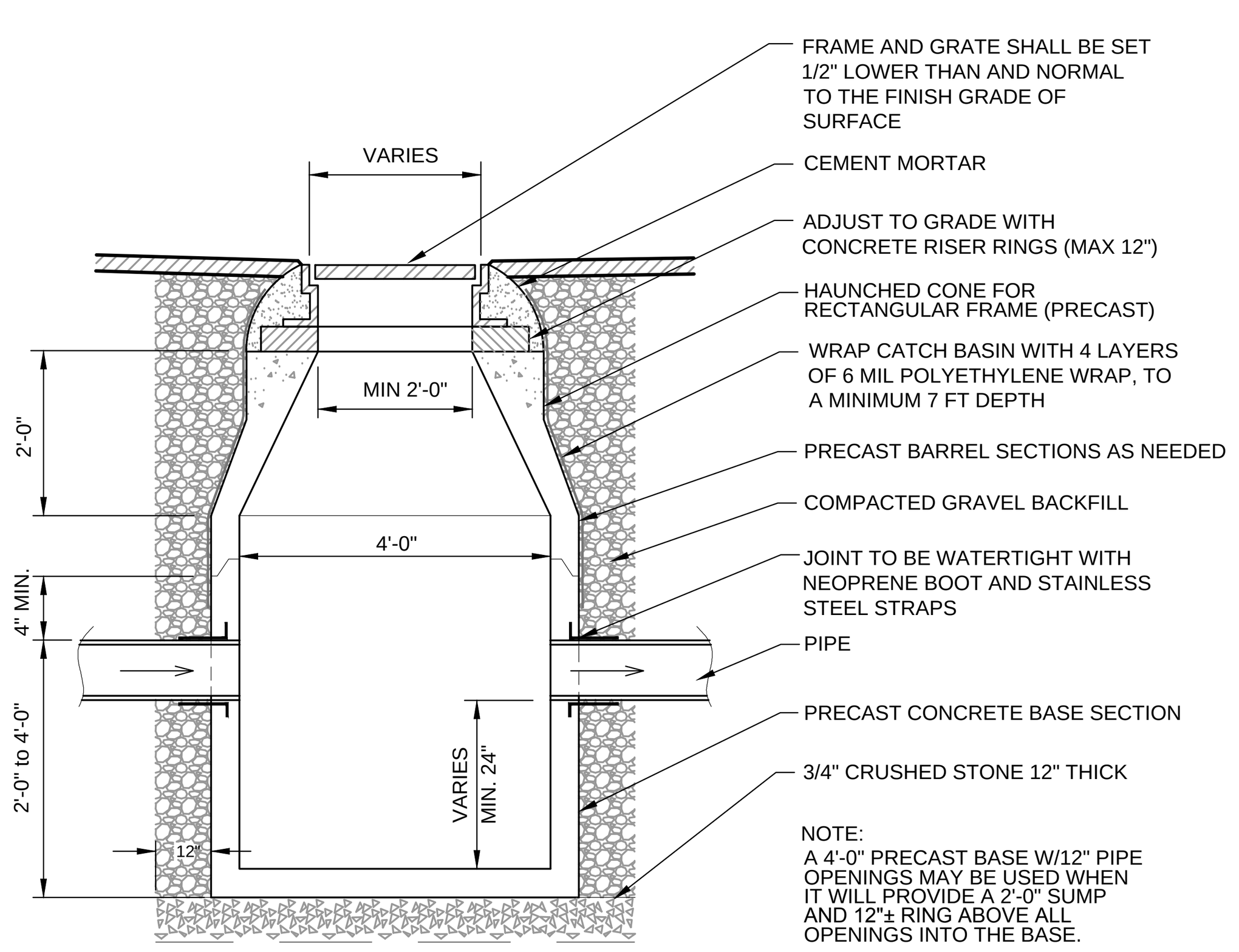
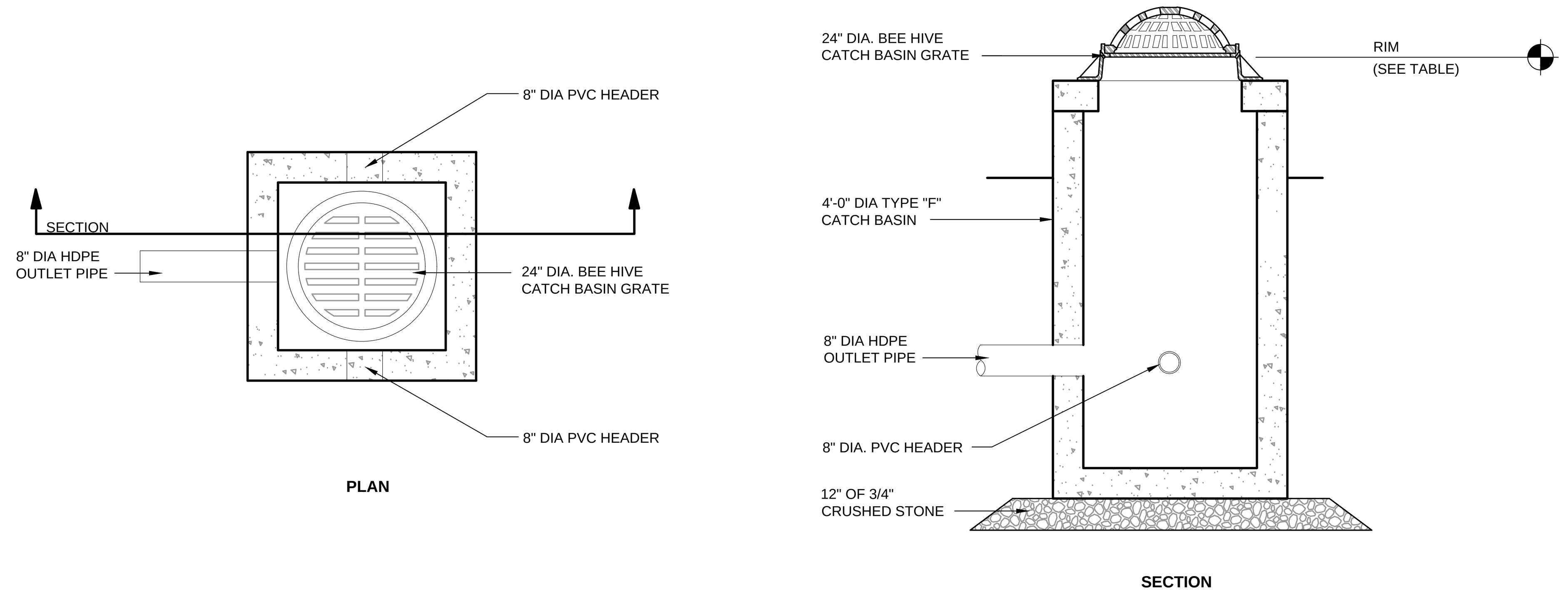


TYPICAL CATCH BASIN DETAIL

N.T.S.



OVERFLOW OUTLET STRUCTURE DETAIL

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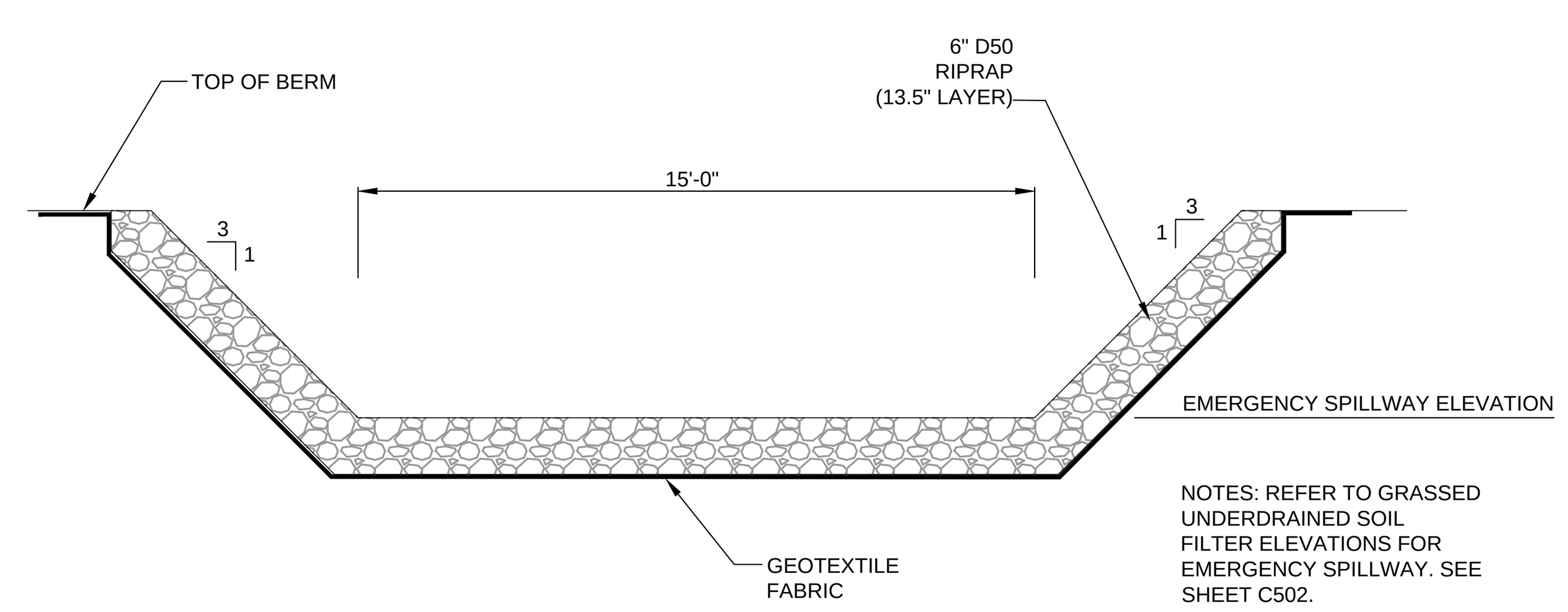


GRASSED UNDERDRAINED SOIL FILTER EMERGENCY SPILLWAY DETAIL

N.T.S.

Waterville
44 Main Street
Suite 204
Waterville, ME
T.207-680-2202
F.207-680-2204

Presque Isle
549 Main Street
PO Box 827
Presque Isle, ME
T.207-764-8412
F.207-764-8414

Brewer
465 South Main Street
PO Box 639
Brewer, ME
T.207-989-4824
F.207-989-4881

Lewiston
640 Main Street
Lewiston, ME
T.207-795-6009
F.207-795-6128

Bar Harbor
1366 State Hwy 102
Bar Harbor, ME
T.207-288-0587
F.207-288-0588

Machias
61 Dublin Street
PO Box 587
Machias, ME
T.207-255-3270
F.207-255-8367

CES INC
Engineers • Environmental Scientists • Surveyors

PROJECT TITLE
MRC / FIBERIGHT SOLID WASTE PROCESSING FACILITY
HAMPDEN, MAINE

SHEET TITLE
SITE DETAILS

REV.	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
R1				
R2				
R3				
R4				
R5				
R6				
R7				

STATE OF MAINE
SEAN M.
THIES
No. 10139
02/08/2016
LICENSED
PROFESSIONAL ENGINEER

SCALE: NO SCALE	
DATE: 2015-05-11	
DRAWN BY: BLQ	CHECKED BY: SMT
DESIGNED BY: ACH	APPROVED BY: SMT
JOB NUMBER: 10973.003	
DRAWING NUMBER: C501	

P:\10973-MRC-MUNICIPAL-REVIEW-COMMITTEE\003-PROCESSING FACILITY-DSP\02-CAD_DRAWINGS\CIVIL\DSGN_DWGS\STORMWATER\10973.003-SW-DT.DWG, 2/8/2016 3:05 PM

EROSION CONTROL NOTES

1. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENTATION CONTROL BMPS, PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST EDITION.

2. SILT FENCE WILL BE INSPECTED, REPLACED AND/OR REPAIRED IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR LOSS OF SERVICEABILITY DUE TO SEDIMENT ACCUMULATION. AT A MINIMUM, ALL EROSION CONTROL DEVICES WILL BE OBSERVED WEEKLY.

3. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO CONSTRUCTION SITE.

4. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY A SUITABLE GROWTH OF GRASS. ONCE A SUITABLE GROWTH OF GRASS HAS BEEN OBTAINED, ALL TEMPORARY EROSION CONTROL ITEMS SHALL BE REMOVED BY THE CONTRACTOR. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THEY ARE REMOVED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, SEEDED, AND MULCHED IMMEDIATELY.

5. ALL DISTURBED AREAS WILL BE SEEDED WITH 2.5 LBS. RED FESCUE AND 0.5 LBS. RYE GRASS PER 1,000 SQUARE FEET AND MULCHED AT A RATE OF 90 LBS. PER 1,000 SQUARE FEET OR EQUIVALENT APPLICATION OF SEED AND MULCH.

6. A SUITABLE BINDER SUCH AS CURASOL OR TERRTACK WILL BE USED ON THE HAY MULCH FOR WIND CONTROL.

7. IF FINAL SEEDING OF DISTURBED AREAS IS NOT COMPLETED BY SEPTEMBER 15th OF THE YEAR OF CONSTRUCTION, THEN ON THAT DATE THESE AREAS WILL BE GRADED AND SEEDED WITH WINTER RYE AT THE RATE OF 112 POUNDS PER ACRE OR 3 POUNDS PER 1000 SQUARE FEET. THE RYE SEEDING WILL BE PRECEDED BY AN APPLICATION OF 3 TONS OF LIME AND 800 LBS. OF 10-20-20 FERTILIZER OR ITS EQUIVALENT. MULCH WILL BE APPLIED AT A RATE OF 90 POUNDS PER 1000 SQUARE FEET.

8. IF THE RYE SEEDING CANNOT BE COMPLETED BY OCTOBER 1st OR IF THE RYE DOES NOT MAKE ADEQUATE GROWTH BY DECEMBER 1st, THEN ON THOSE DATES, HAY MULCH WILL BE APPLIED AT 150 POUNDS PER 1000 SQUARE FEET.

9. ALL CATCH BASINS ARE TO BE PROTECTED BY STRAW BALE OR SILTFENCE IN ACCORDANCE WITH SECTION B-3 STORM DRAIN INLET PROTECTION OF THE MAINE BMP HANDBOOK. SURROUNDING AREAS CAN BE EXCAVATED OR LEFT LOW AS A SEDIMENT TRAP. CURB INLETS SHALL BE PROTECTED BY GUTTERGATORS, OR APPROVED EQUIVALENT.

10. INTERIOR SILT FENCES ALONG CONTOUR DIVIDING FLAT AND STEEP SLOPES, AREAS WITH DIFFERENT DISTURBANCE SCHEDULES, AROUND TEMPORARY STOCKPILES OR IN OTHER UNSPECIFIED POSSIBLE CIRCUMSTANCES SHOULD BE CONSIDERED BY THE CONTRACTOR. THE INTENT OF SUCH INTERIOR SILT FENCES IS TO LIMIT SEDIMENT TRANSPORT WITHIN THE SITE TOWARD THE PROTECTED CATCH BASIN INLETS TO MINIMIZE SEDIMENT REMOVAL REQUIRED BY THE EROSION CONTROL NOTE 9 PROTECTIONS AND EXTEND LIFE OF SUCH DEVICES.

11. THE CONTRACTOR SHALL PROVIDE A SEDIMENT BASIN FOR ALL WATER PUMPED FROM EXCAVATIONS. BASIN SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES". THE CONTRACTOR SHALL SUBMIT FOR REVIEW/APPROVAL PRIOR TO BEGINNING ANY PROJECT WORK.

12. CONSTRUCTION OVERSIGHT:
THE OWNER WILL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER TO INSPECT THE CONSTRUCTION AND STABILIZATION OF ALL STORMWATER MANAGEMENT STRUCTURES. IF NECESSARY, THE INSPECTING ENGINEER WILL INTERPRET THE POND'S CONSTRUCTION PLAN FOR THE CONTRACTOR. ONCE ALL STORMWATER MANAGEMENT STRUCTURES ARE CONSTRUCTED AND STABILIZED, THE INSPECTING ENGINEER WILL NOTIFY THE DEPARTMENT IN WRITING WITHIN 30 DAYS TO STATE THAT THE WORK HAS BEEN COMPLETED. ACCOMPANYING THE ENGINEER'S NOTIFICATION MUST BE A LOG OF THE ENGINEER'S INSPECTIONS GIVING THE DATE OF EACH INSPECTION, THE TIME OF EACH INSPECTION, AND THE ITEMS INSPECTED ON EACH VISIT, AND INCLUDE ANY TESTING DATA OR SIEVE ANALYSIS DATA OF EVERY MINERAL SOIL AND SOIL MEDIA SPECIFIED IN THE PLANS AND USED ON SITE.

13. UNDERDRAINED FILTER BASINS:
CONSTRUCTION SEQUENCE: THE SOIL FILTER MEDIA AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURE, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION UNLESS THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA IS DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED.
COMPACTION OF SOIL FILTER: FILTER SOIL MEDIA AND UNDERDRAIN BEDDING MATERIAL MUST BE COMPACTED TO BETWEEN 90% AND 92% STANDARD PROCTOR. THE BED SHOULD BE INSTALLED IN AT LEAST 2 LIFTS OF 9 INCHES TO PREVENT POCKETS OF LOOSE MEDIA.
CONSTRUCTION OVERSIGHT: INSPECTION BY A PROFESSIONAL ENGINEER WILL OCCUR AT A MINIMUM:
   - AFTER THE PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED,
   - AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE FILTER MEDIA,
   - AFTER THE FILTER MEDIA HAS BEEN INSTALLED AND SEEDED. BIO-RETENTION CELLS MUST BE STABILIZED PER THE PROVIDED PLANTING SCHEME AND DENSITY FOR THE CANOPY COVERAGE OF 30 AND 50%.
   - AFTER ONE YEAR TO INSPECT HEALTH OF THE VEGETATION AND MAKE CORRECTIONS, AND
   - ALL THE MATERIAL USED FOR THE CONSTRUCTION OF THE FILTER BASIN MUST BE CONFIRMED AS SUITABLE BY THE DESIGN ENGINEER. TESTING MUST BE DONE BY A CERTIFIED LABORATORY TO SHOW THAT THEY ARE PASSING DEP SPECIFICATIONS.

   TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL RESULTS OF FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION. THE CONTRACTOR SHALL:
   - SELECT SAMPLES FOR SAMPLING OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILTER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.
   - PERFORM A SIEVE ANALYSIS CONFORMING TO STM C136 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COURSE AGGREGATES 1996A) ON EACH TYPE OF THE SAMPLE MATERIAL. THE RESULTING SOIL FILTER MEDIA MIXTURE MUST HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE, A CLAY CONTENT OF LESS THAN 2% (DETERMINED HYDROMETER GRAIN SIZE ANALYSIS) AND HAVE 10% DRY WEIGHT OF ORGANIC MATTER.
   - PERFORM A PERMEABILITY TEST ON THE SOIL FILTER MEDIA MIXTURE CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90-92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698.

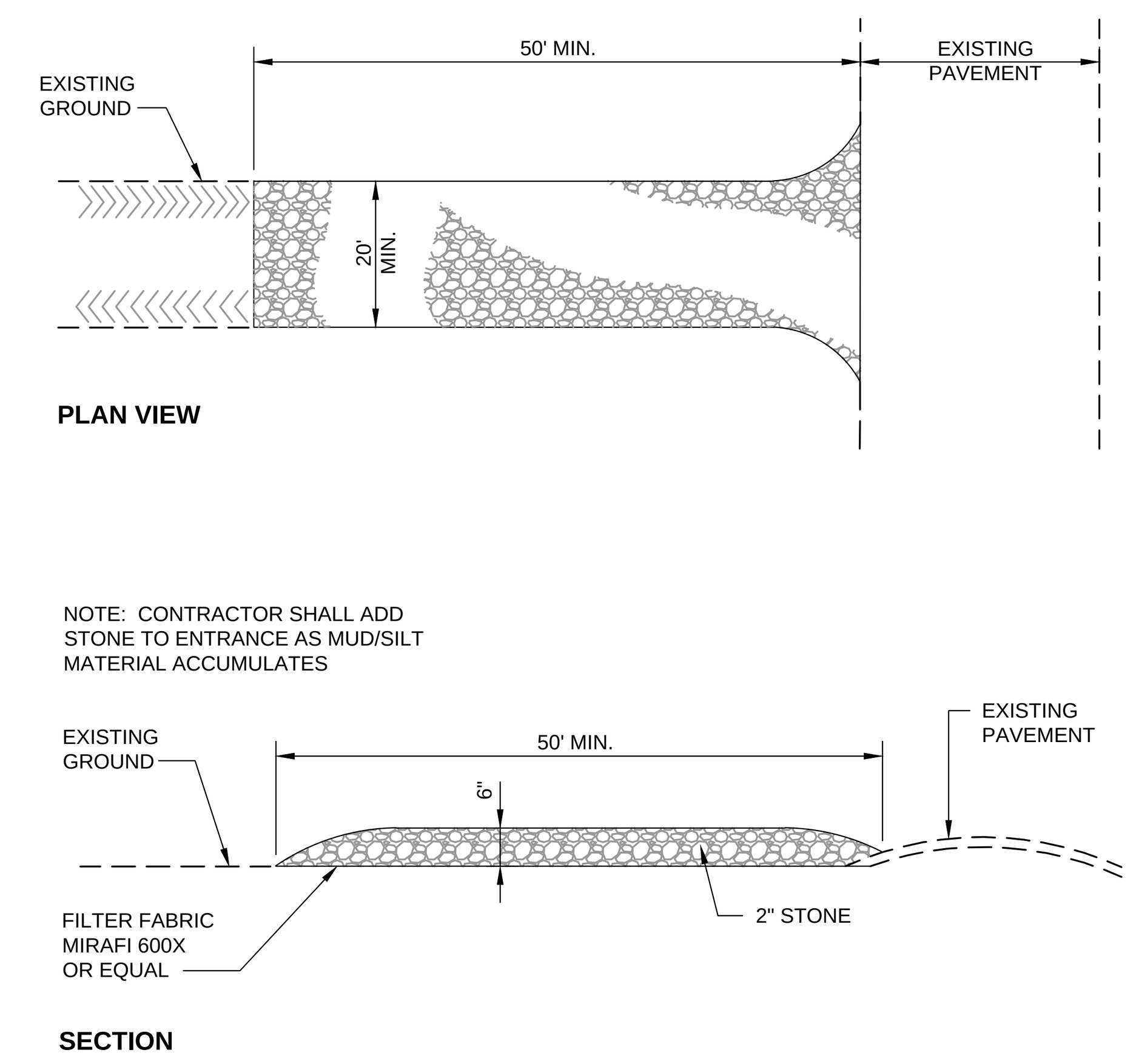
14. STONE BERMED LEVEL LIP SPREADER
INSPECTIONS BY A PROFESSIONAL ENGINEER SHALL CONSIST OF WEEKLY VISITS TO THE SITE TO INSPECT EACH LEVEL SPREADERS CONSTRUCTION, STONE BERM MATERIAL AND PLACEMENT, SETTLING BASIN FROM INITIAL GROUND DISTURBANCE TO FINAL STABILIZATION OF THE LEVEL SPREADER.

21. ROOF DRIP EDGE FILTERS:
INSPECTIONS BY A PROFESSIONAL ENGINEER SHALL CONSIST OF WEEKLY VISITS TO THE SITE TO INSPECT EACH THE ROOF DRIP EDGE FILTER'S UNDERDRAIN CONSTRUCTION, FILTER MATERIAL PLACEMENT, AND OVERFLOW FROM INITIAL GROUND DISTURBANCE TO FINAL STABILIZATION OF THE FILTER.

22. DEWATERING
A DEWATERING PLAN IS NEEDED TO ADDRESS EXCAVATION DE-WATERING FOLLOWING HEAVY RAINFALL EVENTS OR WHERE THE EXCAVATION MAY INTERCEPT THE GROUNDWATER TABLE DURING CONSTRUCTION. THE COLLECTED WATER NEEDS TREATMENT AND A DISCHARGE POINT THAT WILL NOT CAUSE DOWNGRADIENT EROSION AND OFFSITE SEDIMENTATION OR WITHIN A RESOURCE. PLEASE FOLLOW THE DETAILS OF SUCH A PLAN.

23. BASIC STANDARDS - EROSION CONTROL MEASURES:
MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, BASED ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION MUST BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND NEED TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. A CONSTRUCTION LOG MUST BE MAINTAINED FOR THE EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE

THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES AS PUBLISHED IN 1991 BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION HAS BEEN CHANGED TO THE "MAINE EROSION AND SEDIMENT CONTROL BMPS" PUBLISHED BY THE MAINE DEP IN 2003. ALL REFERENCES SHOULD BE CHANGED TO THE NEW MANUAL. HTTP://WWW.MAINE.GOV/DEP/BLWQ/DOCSTAND/ESCBMPS/INDEX.HTM



STABILIZED CONSTRUCTION ENTRANCE DETAIL
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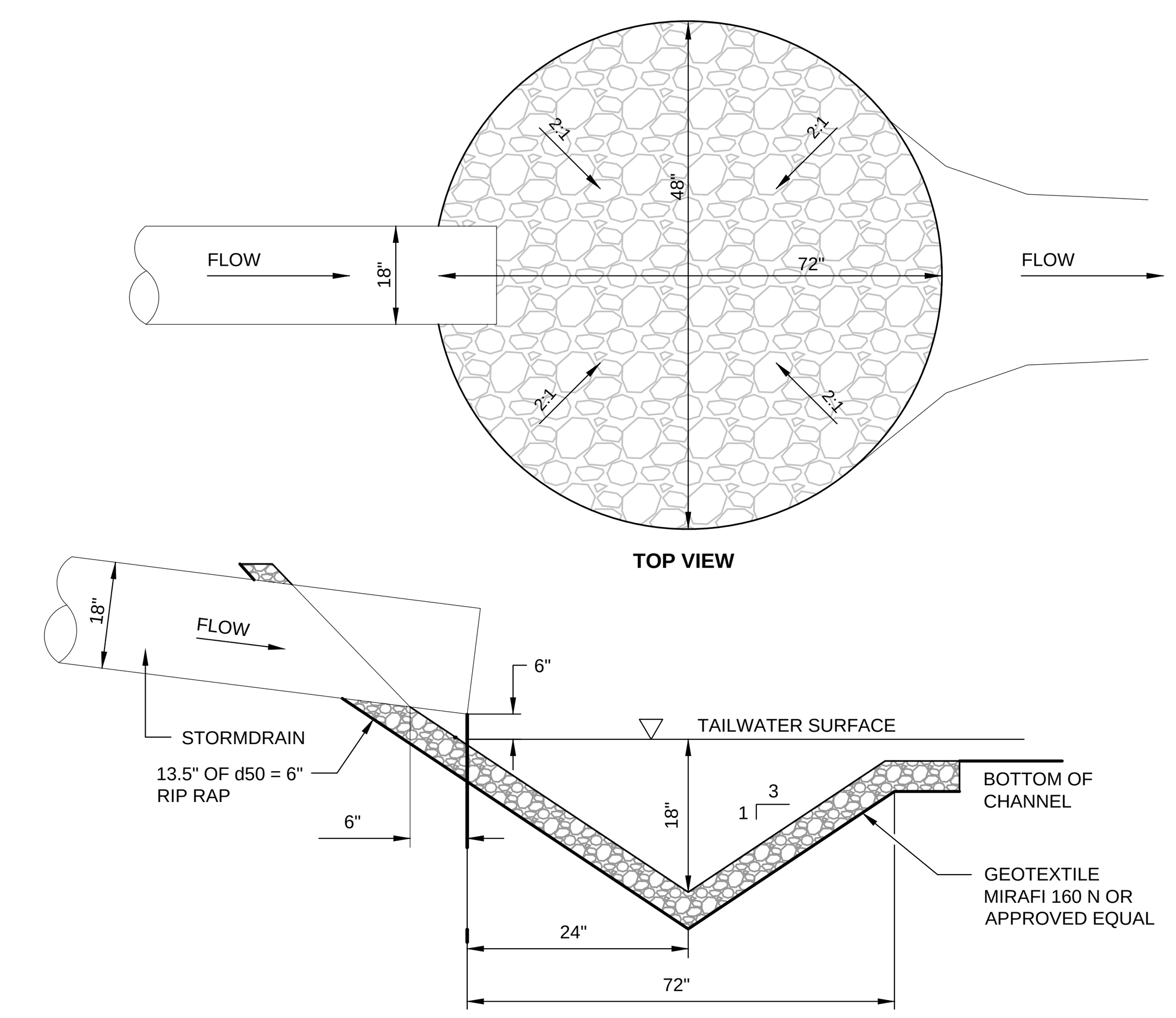

TYPICAL PLUNGE POOL DETAILS
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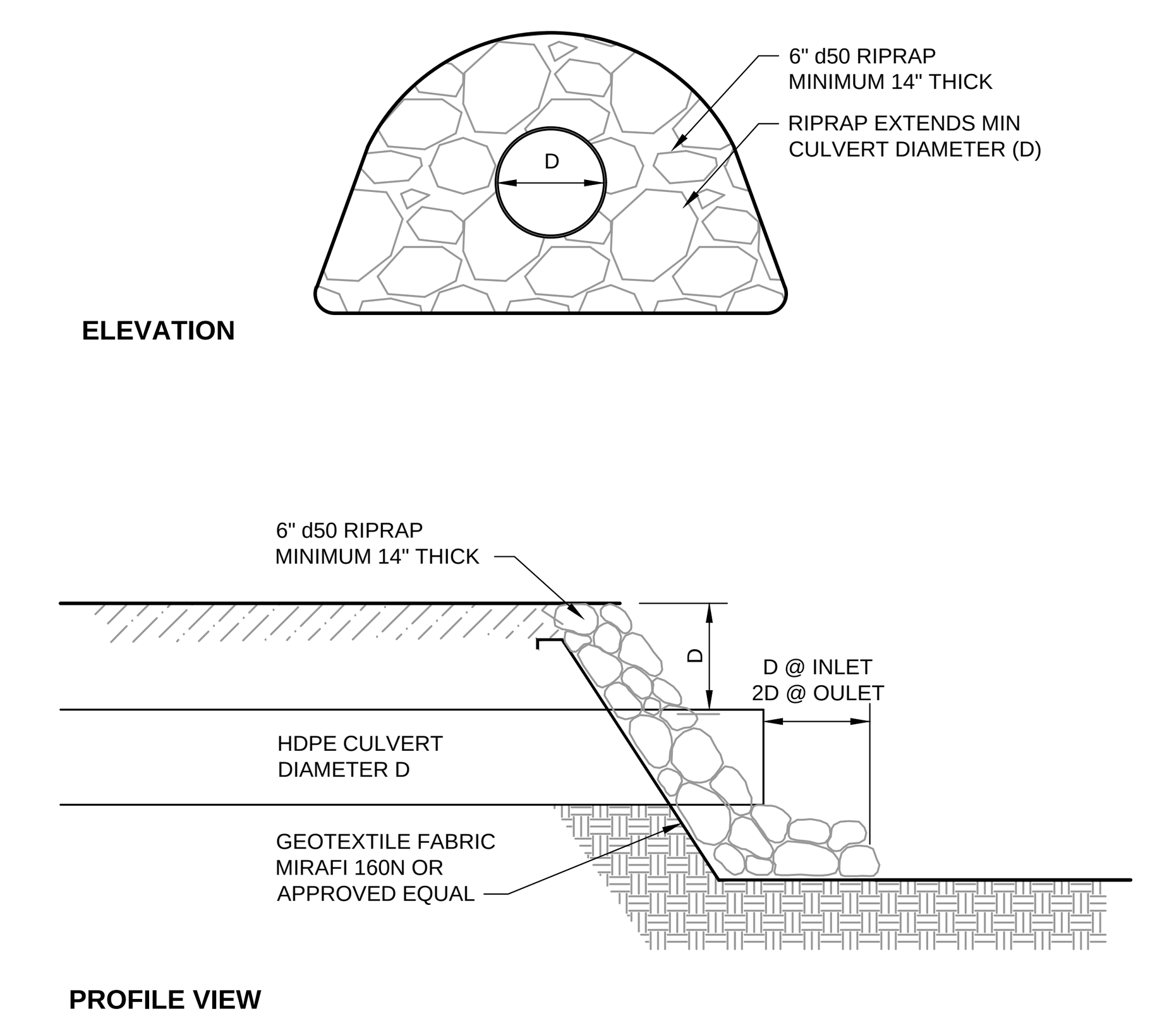
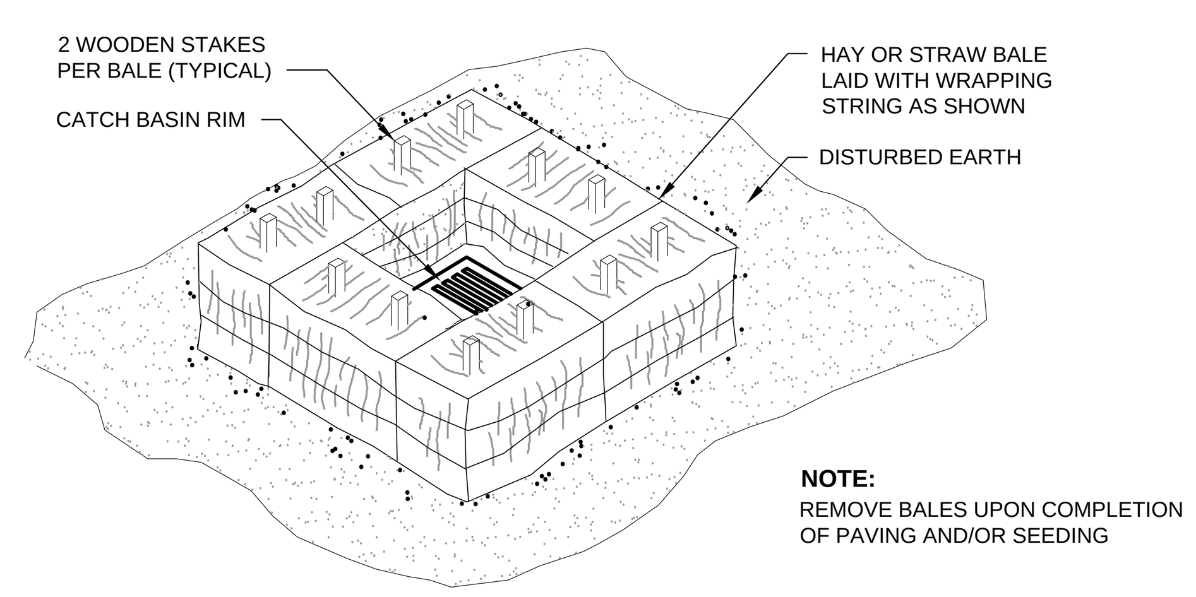
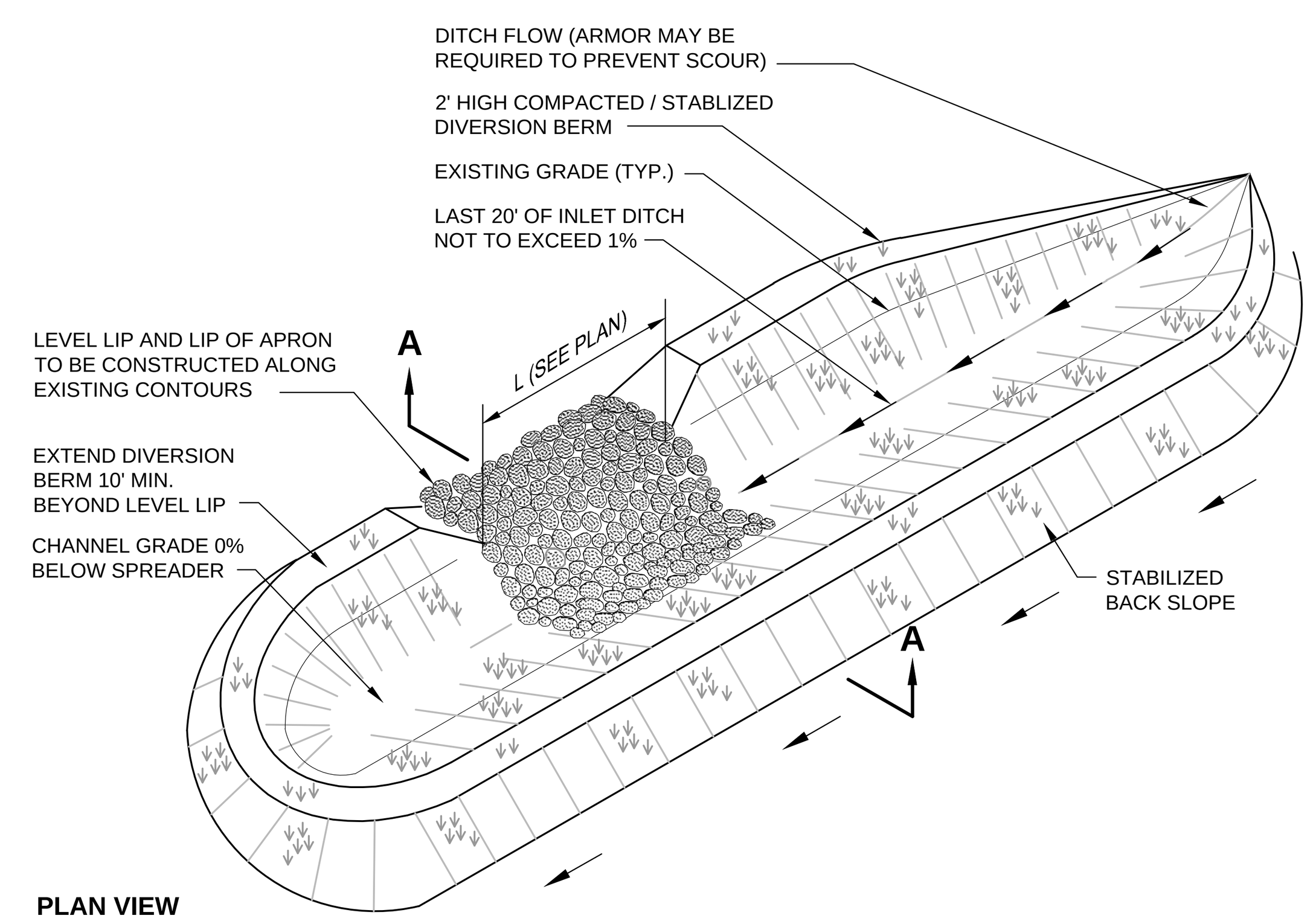


TYPICAL CULVERT INLET/OUTLET PROTECTION DETAIL
N.T.S.



NOTE:
REMOVE BALES UPON COMPLETION OF PAVING AND/OR SEEDING

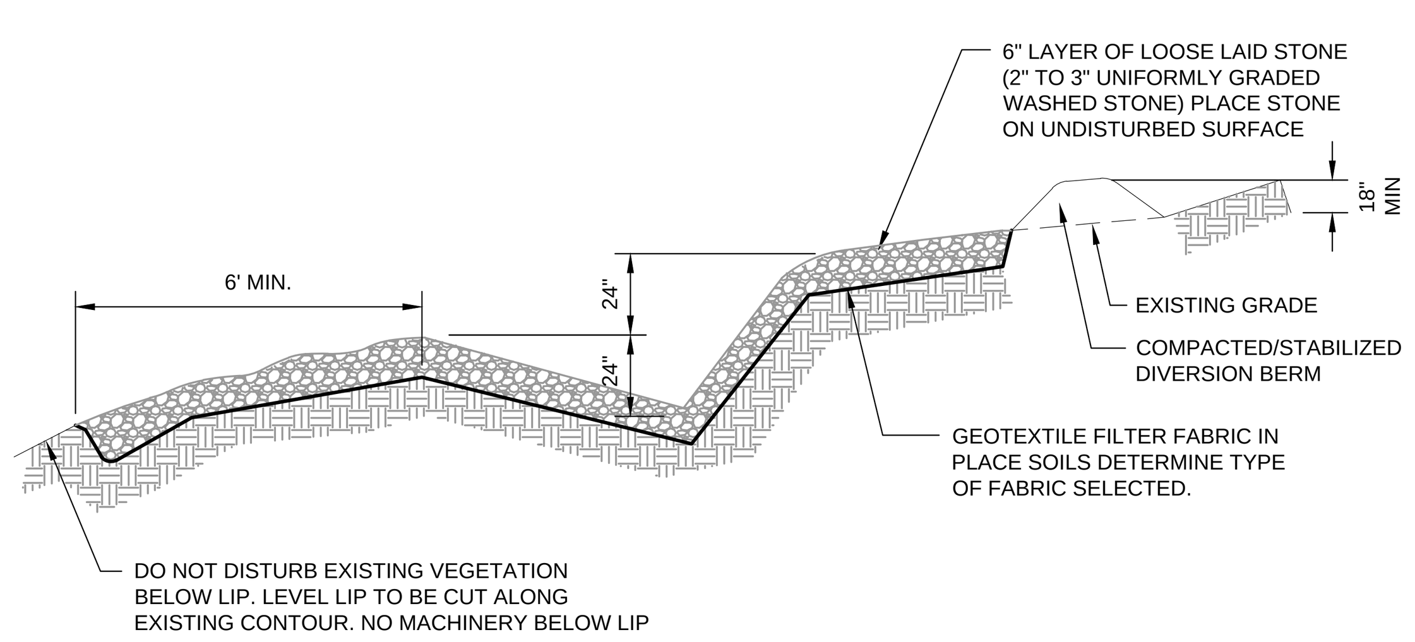
LOW POINT SEDIMENTATION CONTROL BARRIER DETAIL
N.T.S.



PLAN VIEW

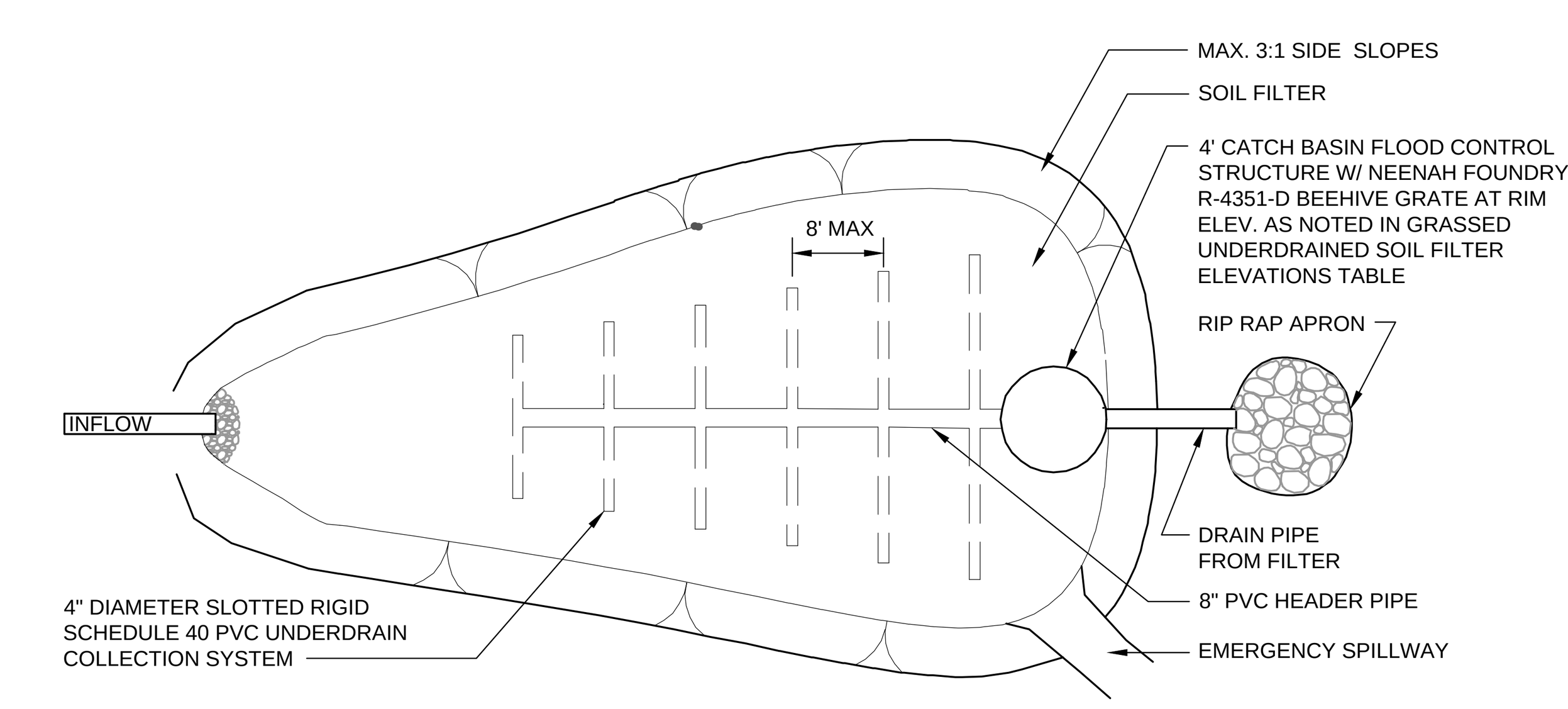
NOTES:

1. SPREADERS SHALL BE INSTALLED WITH A LEVEL INSTRUMENT. CONSTRUCT LEVEL LIP TO 0% GRADE TO ENSURE UNIFORM SHEET FLOW. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL (NOT FILL).
2. SELECT GEOTEXTILE FABRIC BASED ON UNDISTURBED SOILS (SANDS, SILTS, CLAYS, ETC.)
3. PLACE 6" LAYER OF UNIFORMLY GRADED STONE 2" TO 3" IN DIA. RAKE TO FORM SMOOTH UNIFORM SURFACE. DO NOT FILL VOIDS IN STONE.
4. THE INLET DITCH SHALL NOT EXCEED A 1% GRADE FOR AT LEAST 20 FEET BEFORE ENTERING THE SPREADER.
5. STORM RUN-OFF CONVERTED TO SHEET FLOW ACROSS OUTLET APRON SHALL FLOW ONTO STABILIZED AREAS. RUN-OFF SHALL NOT BE RECONCENTRATED IMMEDIATELY BELOW THE POINT OF DISCHARGE.
6. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED.
7. CONSTRUCTION OF LEVEL LIP SPREADER SHALL BE FROM UPHILL SIDE ONLY. LEVEL LIP & AREA BELOW SPREADER SHALL BE AT EXISTING GRADES & UNDISTURBED BY EARTHWORK OR EQUIPMENT.
8. CONSTRUCT SPREADER WITH LIP AT EXISTING ELEVATION AS SPECIFIED.
9. DOWNGRADIENT RECEIVING AREA MUST BE NATURALLY WELL VEGETATED.
10. DISCHARGE NOT PERMITTED WITHIN 25' OF A STREAM OR WETLAND. CONSULT DEP IF STRUCTURE MUST BE WITHIN 75' OF STREAM OR WATER BODY.

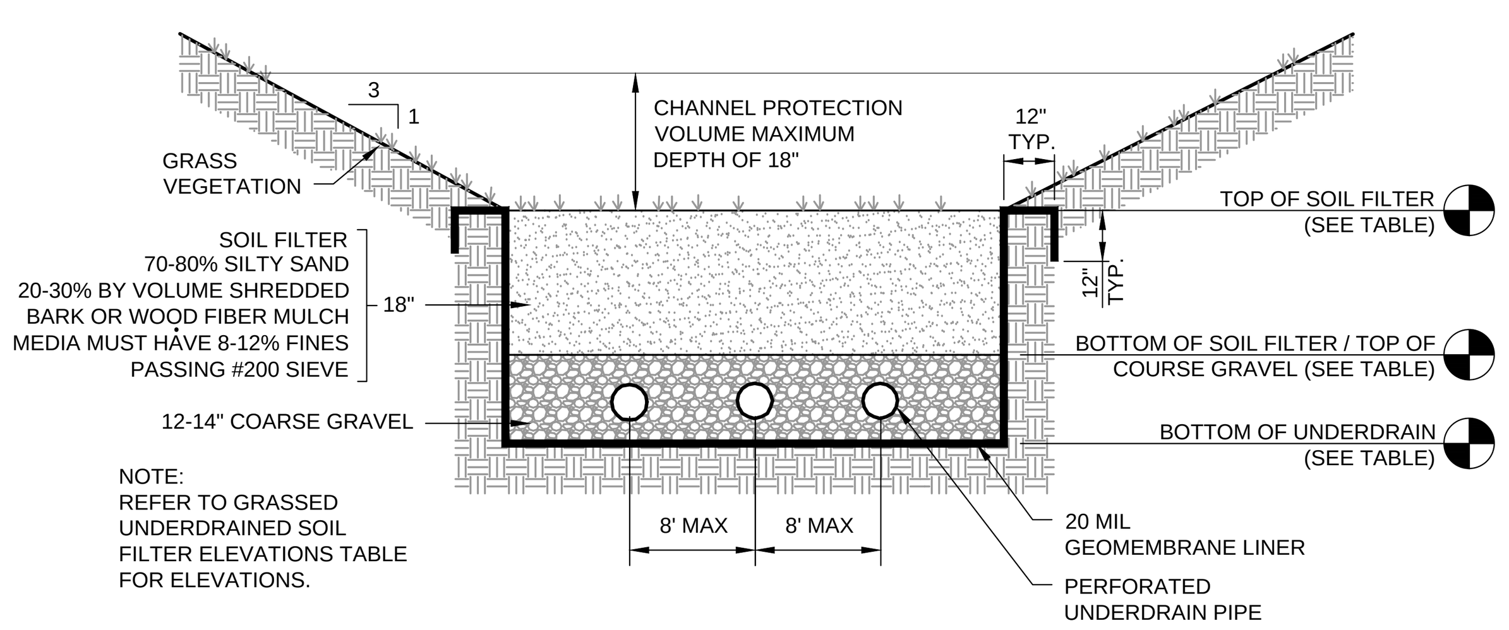


SECTION A-A

LEVEL LIP SPREADER DETAILS
N.T.S.



PLAN VIEW



NOTE:
REFER TO GRASSED UNDERDRAINED SOIL FILTER ELEVATIONS TABLE FOR ELEVATIONS.

SECTION

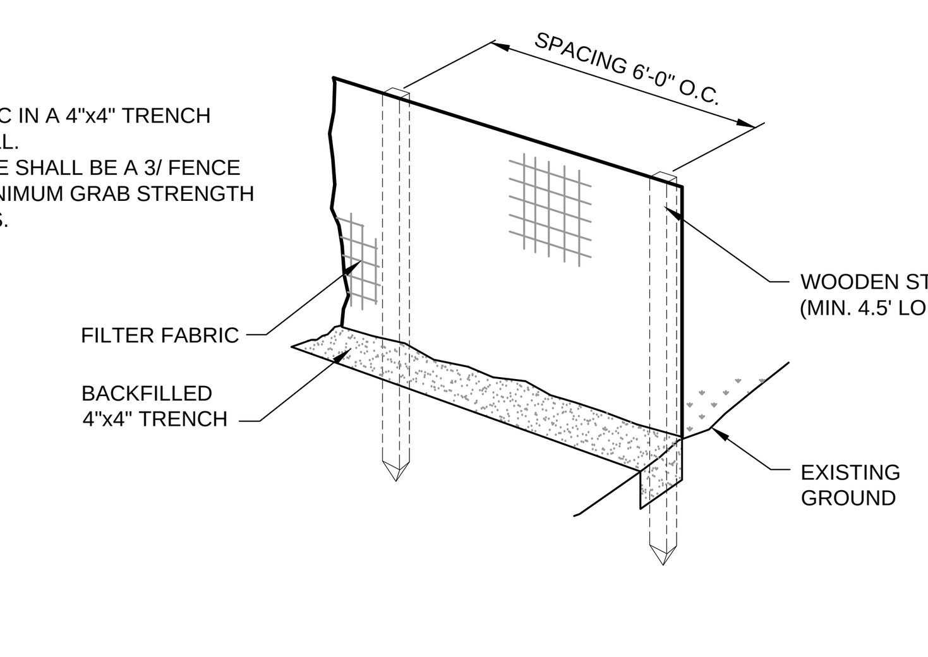
GRASSED UNDERDRAINED SOIL FILTER ELEVATIONS

I.D.	APPROXIMATE EXISTING ELEVATION (FT)	EMERGENCY SPILLWAY ELEVATION (FT)	OUTLET CONTROL STRUCTURE ELEVATION (FT)	PROPOSED TOP OF SOIL FILTER (FT)	PROPOSED BOTTOM OF SOIL FILTER / TOP OF COARSE GRAVEL (FT)	PROPOSED ELEVATION OF PIPE BED (FT)	PROPOSED BOTTOM OF COARSE GRAVEL (FT)	STRUCTURE LINED (YES/NO)	FLOODING CONTROL STRUCTURE RIM ELEVATION (FT)	25 YEAR STORM ELEVATION (FT)	TOP OF BERM (FT)	25 YEAR INFLOW (CFS)	FLOW DEPTH (FT) ASSUMING PRIMARY OUTLET FAILS
USF1	143.0	143.0 *	143.0	142.0	140.5	139.8	139.5	YES	143.0	144.0	144.50	8.38	---
USF2	138.0	139.5	139.0	137.5	136.0	135.3	135.0	YES	139.0	139.1	139.60	6.81	0.04
USF3	138.0	139.5	139.0	138.0	136.5	135.8	135.5	YES	139.0	139.4	139.95	8.12	0.37

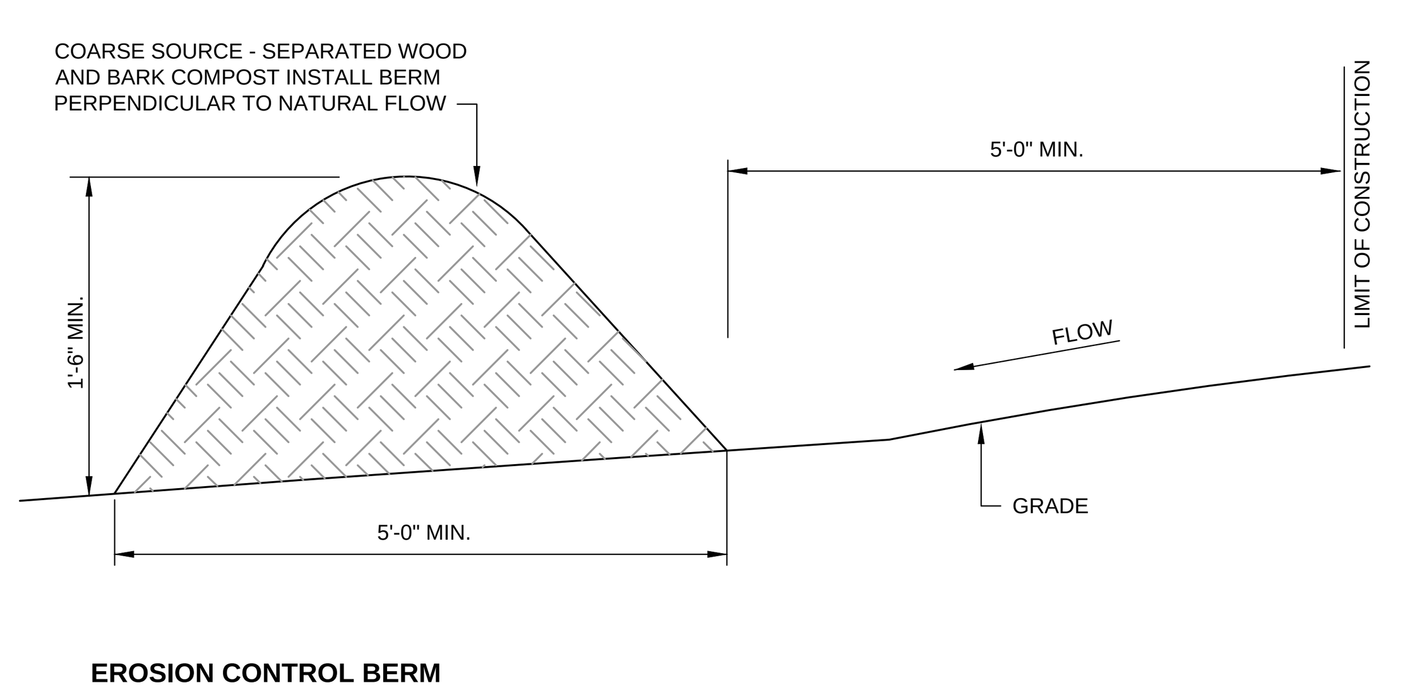
* NOTE: OVERFLOW DEVICE IS A BASIN STRUCTURE.

GRASSED UNDERDRAIN SOIL FILTER FIELD DETAIL
N.T.S.

NOTES:
1. KEY FABRIC IN A 4"x4" TRENCH W/BACKFILL.
2. SILT FENCE SHALL BE A 3/ FENCE WITH A MINIMUM GRAB STRENGTH OF 120 LBS.



SILT FENCE DETAIL
N.T.S.



EROSION CONTROL BERM

EROSION CONTROL BERM DETAIL
N.T.S.

Waterville
44 Main Street
Suite 204
Waterville, ME
T.207-680-2202
F.207-680-2204

Lewiston
640 Main Street
Lewiston, ME
T.207-795-6009
F.207-795-6128

Presque Isle
549 Main Street
PO Box 827
Presque Isle, ME
T.207-764-8412
F.207-764-8414

Bar Harbor
1366 State Hwy 102
Bar Harbor, ME
T.207-288-0587
F.207-288-0588

Brewer
465 South Main Street
PO Box 639
Brewer, ME
T.207-989-4824
F.207-989-4881

Machias
61 Dublin Street
PO Box 587
Machias, ME
T.207-255-3270
F.207-255-8367

CES INC
Engineers • Environmental Scientists • Surveyors

PROJECT TITLE
MRC / FIBERIGHT SOLID WASTE PROCESSING FACILITY
HAMPDEN, MAINE

SHEET TITLE
EROSION CONTROL
DETAILS AND NOTES

REV.	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
R1				
R2				
R3				
R4				
R5				
R6				
R7				

SCALE: NO SCALE
DATE: 2015-05-12
DRAWN BY: BLQ
CHECKED BY: SMT
DESIGNED BY: ACH
APPROVED BY: SMT
JOB NUMBER: 10973.003
DRAWING NUMBER: C502

P:\10973-MRC-MUNICIPAL-REVIEW-COMMITTEE\003-PROCESSING FACILITY-DSP\02-CAD_DRAWINGS\CIVIL\DSGN_DWGS\STORMWATER\10973.003-SW-DT.DWG, 2/8/2016 3:07 PM

ATTACHMENT 22

RESIDUALS AND WASTE DERIVED PRODUCT DISTRIBUTION LIST

Bangor Natural Gas

498 Maine Ave.
P.O. Box 980
Bangor, ME 04402-980
Tele. 207-941-9595
Fax 207-942-0101

February 10, 2016

Mr. Alan P Iantosca
Fiberight LLC
PO Box 21171
Catonsville, MD 21228

Dear Alan,

Bangor Gas has surveyed and assessed the Loring Pipeline between Union Street in Bangor and Hampden. The pipe is in very good condition and we have completed 85% of the work needed to put natural gas in this section. We have replaced all the old oil valves to new gas valves and installed a corrosion control system in general accordance with PHMSA Chapter 192 rules for natural gas pipelines.
The last part of our due diligence on this section of pipe is to replace a 100' of pipe that is under a creek as we can't see the pipe to inspect the cathodic protection wrapping around it, so it makes more sense just to replace that section. We anticipate that the required work together with testing and modification will be completed prior to the Fiberight facility coming on line.

Regards

Andrew Barrowman
Manager Sales & Marketing

ATTACHMENT 23

OPERATIONS AND MAINTENANCE MANUAL

OPERATION AND MAINTENANCE MANUAL

FOR

FIBERIGHT, LLC
HAMPDEN, MAINE

Manual Prepared By:
CES, Inc.
465 South Main Street
P.O. Box 639
Brewer, ME 04412
207.989.4824

MARCH 2016
JN: 11293.001

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FOREWORD

The purpose of this Operations and Maintenance (O&M) Manual, hereinafter referred to as "Manual" is to provide guidance to Fiberight, LLC (Fiberight) management and operating personnel for the operations and maintenance of the proposed processing facility (facility) located on a 95 +/- acre parcel in Hampden, Maine. This facility will be owned and operated by Fiberight. The Municipal Review Committee, Inc. (MRC) and Fiberight have an agreement as such that the MRC and its member communities will supply the Municipal Solid Waste (MSW) required to operate the facility. Fiberight submitted a Solid Waste Processing Facility License Application to the Maine Department of Environmental Protection (MDEP) in May 2015. This Manual is intended to ensure that Fiberight operates its facility in accordance with their Solid Waste License and the operational requirements specified in 06 096 CMR Chapter 409.4, last revised July 27, 2014. The facility is located off the Coldbrook Road approximately 0.6 miles to the south of Interstate 95. Refer to the Location Map in **Appendix A**.

This Manual has been prepared to conform with the Maine Solid Waste Management Regulations (MSWRs) effective November 2, 1998. Refer to a copy of the appropriate regulations in **Appendix C**.

Personnel involved in the daily operation of the facility consist of management and employees retained by Fiberight.

Fiberight is responsible for ensuring that operations are carried out in accordance with the current SWMRs, the facility's Solid Waste License, and this Manual. This responsibility includes policy decisions, contractual arrangements, maintenance, accounting, fiscal, and other operations pertinent to the management and operation of the facility.

All on-site work will be performed by employees of Fiberight. Personnel operating the facility shall be familiar with, and follow, this Manual's intent and general direction. No Manual can provide complete details or answers to all day-to-day problems and situations. Each operation is different. The Site Supervisor or Manager shall record any operational challenges that may arise and ensure corrective measures are taken as required. This information can be used to refine the Manual and provide guidance for facility operational changes if necessary. **Appendix I** contains a list of agencies, firms, and personnel that can provide assistance and answer any questions you may have regarding this Manual and basic operation of the facility.

GENERAL FACILITY OPERATIONS

A. OPERATIONS MANUAL

The Fiberight facility must be operated in accordance with this Manual which incorporates the operating requirements of its license and the Solid Waste Management Regulations (SWMRs). This Manual must be available for inspection by the Maine Department of Environmental Protection (MDEP) staff during normal business hours. This Manual must be updated to keep current with operational changes implemented at the processing facility.

This Manual includes the information that would enable supervisory and operating personnel, and persons evaluating the operation of the facility, to determine the manner in which policies, procedures, monitoring, maintenance, inspection, and legal requirements that are followed to ensure safe and environmentally sound operation on a daily and yearly basis.

A copy of the facility license, including amendments and revisions to that license, and a copy of the applicable sections of the most recent SWMRs can be found in **Appendices B** and **C**, respectively.

B. GENERAL OPERATIONS

The Fiberight facility in Hampden is designed to process 650 tons per day of Municipal Solid Waste (MSW). The MSW generated within area communities, including 187 member communities of the Municipal Review Committee (MRC), will be delivered to the facility on a 5½ day basis in such volumes to support the daily processing rate. The facility has been designed to be able to accept a peak daily delivery of 950 tons per day of MSW. The as-delivered MSW is first pre-sorted to remove waste which cannot be processed ("Non-processible Waste"), such as inert materials, large bulky items, and waste which, in the reasonable judgment of the operator based upon visual inspection at the time of delivery could, if processed, result in damage to the facility, interruption of normal facility operations, or cause extraordinary processing or maintenance costs, solely by the virtue of the physical or chemical properties of such waste.

The pre-sorted material is then conveyed to a primary trommel where the processible waste over 20-inches is removed and routed to a shredder for size reduction[1]. The 1½-2-inch post shredder material is then sent to the fines processing system. The 20-inch minus material is routed to a screen where the 2-inch minus fines containing glass, grit, and small organic materials are removed and routed to the fines processing system. The over 2-inch material is sent to a continuous pulper undergoing a pulping process which produces a biomass pulp and a reject stream containing the majority of the recyclables. The pulper reject stream is then subjected to a second sort process in which the recyclables in the stream are segregated into their individual components for sale to the marketplace. The recyclables to be produced from the second sorting process and sold will be plastic films, rigid plastics, and ferrous and non-ferrous metals.

[1]The 20" screen size referred to above may be altered periodically depending on experienced waste composition and seasonal adjustments.

The remaining residue from the second sort process is deposited into staged roll-off containers or walking floor trailers for removal and eventual disposal.

The biomass pulp exiting the continuous pulper is routed to the wash system where any remaining soluble organic material, including solubilized food waste, as well as any remaining non-solubilized food waste, small inorganic materials, ash, sand, glass, small plastic particles, and/or grit ("wash system rejects") are removed from the biomass pulp producing a clean cellulosic pulp. The solubilized organic material is pumped to the anaerobic digestion system where it is converted to biogas in a high rate Anaerobic Digester (AD) and the wash system rejects are conveyed to the fines processing system. The fines processing system is fed material from the post primary trommel overs shredder, the post trommel unders screen minus fraction, and the wash system rejects. In this system, the fines are separated into individual component streams of small plastics, metals, un-pulped material, wood and soluble organics, and residue. The metals are recovered and sold, the un-pulped material is sent back to the pulper, the PHS is conditioned as required for use as a boiler fuel, and the soluble organics are sent to the AD.

The clean cellulosic pulp from the wash system is then routed to be further processed in the pre-treatment system and finally the hydrolysis system. The pre-treatment system prepares the cellulosic pulp for hydrolysis by heat pasteurizing it and mechanically treating to facilitate the hydrolysis process. In the hydrolysis system, the pretreated pulp is exposed to enzymes thereby converting carbohydrates contained in the cellulose to sugars. The hydrolysate from the hydrolysis process is sent to a set of large filter presses where the unconverted cellulose or post hydrolysis solids (PHS) is removed from the stream with the purified industrial sugars being sent to either the AD or sold as industrial sugars dependent on market conditions. Sugars sent to the AD are converted to biogas, along with the soluble organics, purified, and injected in to the nearby natural gas pipeline. Residue materials from the secondary sort process and fines processing system are loaded into roll-off containers or transfer trailers and land filled.

B.1 Operations

The facility must be operated and maintained in a manner that ensures it will meet the approved design requirements, will not contaminate ground or surface water, contaminate the ambient air, constitute a hazard to health or welfare, create a nuisance, and will meet the standards in Chapter 06 096 CMR Chapter 400, section 4.

Good housekeeping practices will be implemented as necessary to meet the standards described above. In addition, the following shall also be implemented or maintained:

1. All waste products received by the facility shall be handled inside the facility within the site confines, and stored and processed indoors within approved infrastructure. Waste handling, sorting activities, and storage will occur within the processing building. Refer to the Site Plan in **Appendix A** for the handling and processing areas. Material storage may be rotated between the different storage areas to allow for increases or decreases in demand of a particular product received by the facility.

2. A paved road provides access to the facility. If necessary during dry periods, the access ways may need to be wetted to control excessive dust generation resulting from facility activities. The access road will be kept free of excessive dirt and debris by sweeping or other methods, to ensure a clear travel way.
3. A Stormwater and Erosion and Sediment Control Plan has been prepared under separate cover.
4. Sequencing: All material received at the facility after weighing shall be delivered directly to the tipping area inside the facility (refer to Site Plan, **Appendix A**). Sequencing of material stored at the facility is not anticipated to occur.
5. Outgoing: Outgoing residue waste to be landfilled shall be loaded into roll-off containers or transfer trailers on an ongoing basis as for approximately 16 hours of each day of operations. On-site storage is not anticipated at the facility for durations requiring special licensing.
6. Parking and yard areas shall be maintained free of excessive dirt or debris.

B.2 Personnel

The operation of the facility must be under the overall supervision and direction of a Site Supervisor or Manager qualified and experienced in the facility's operation, maintenance requirements, and safety procedures. The Site Supervisor or Manager must take whatever measures necessary to familiarize all personnel responsible for operation of the facility with relevant sections of this Manual.

B.3 Equipment

Fiberight maintains equipment sufficient to meet the operational requirements of the facility. Routine maintenance of all equipment is provided as necessary. Below is a list of equipment maintained at the site.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

B.4 Environmental Monitoring

The facility currently does not maintain a Storm Water Pollution Prevention Plan (SWPPP) because all processing activities will occur within a 144,000 square foot building. A facility qualifies for "no exposure" when all industrial activities and materials are protected by a storm resistant shelter designed to prevent exposure to stormwater, and the discharge satisfies the conditions at 40 CFR 122.26(g) and Appendix AE of the General Permit.

Fiberight will not be processing wastewater treatment sludge or septage; therefore, odor monitoring is not proposed at the facility. All processing at the facility will take place inside of a 144,000 square foot building and it is not expected that nuisance odors will materially exist outside of the facility.

No other environmental monitoring is proposed for this facility.

B.5 Fire Protection

The Site Supervisor should make sure that the Town of Hampden Fire Department is familiar with the operations of the facility, and in conjunction with them, develop a Fire and Rescue Plan.

Fiberight shall prevent and control fires at the facility by complying with at least the following:

1. Arrangements shall be made with the Town of Hampden Fire Department to provide emergency service whenever needed in accordance with the Fire and Rescue Plan.
2. Both the Occupations Safety and Health Administration (OSHA – 29 CFR 1910.252(a) Fire Prevention and Protection Basic Precautions) and the National Fire Protection Association (NFPA - 51B Standard for Fire Prevention during Welding, Cutting, and Other Hot Work) have established specific requirements for conducting cutting operations (or other "hot" work). Both standards hold management and supervisors responsible for conducting overall safe cutting operations, providing fire protection equipment, and authorizing hot work. At a minimum, OSHA and NFPA fire prevention and protection standards should be utilized during "hot" work at the site.
3. Provide and maintain sufficient on-site fire equipment, such as detachable fire extinguishers for minor fires. Fire extinguishers shall be maintained in the facility at a number of locations, the office building, and on all mobile equipment.

B.6 Vector Control

Vectors are considered to be any insect, bird, rodent, or other organisms capable of transmitting or carrying germs and disease. Vectors are usually only problematic at facility's that store putrescible waste. Based on the nature of the materials processed at Fiberight, vectors will need to be controlled by means that eliminate the potential for transmitting germs and or disease. Therefore, Fiberight will contract with a licensed 3rd party contractor to create and operate a vector management plan designed to reasonably control vectors at the facility. Fiberight does not

anticipate storing putrescible waste for long periods of time because reserve waste supplies are not required for facility operations; therefore, nesting and reproduction opportunities for vectors may be managed.

B.7 Dust Control

Section B.1 of this Manual provides dust control measures utilized at the facility.

B.8 Material Storage

MSW Storage: The tipping floor in the facility is capable of storing MSW for up to two days prior to processing. MSW will be turned over every two days as it is received at the facility.

Residue Storage: Residues generated from sorting thru normal operations which results in material needing to be landfilled will not be stored on-site for any longer than 24 hours. Once a container or trailer is filled it will be transferred within 24 hours to a licensed solid waste facility for landfilling.

Recyclables Storage: Recyclables generated from sorting will only be stored on-site long enough to fill transport trailers and then sold as commodities on the open market.

B.9 Routine Maintenance and General Cleanliness

Fiberight must provide for routine maintenance and general cleanliness of the entire facility site. This is accomplished through good housekeeping practices utilized at the site as described in Section B.1 of this Manual.

Weekly inspections of the facility will be performed. The inspections will include all processing equipment and infrastructure. A Facility Inspection Checklist is included in **Appendix F**. At a minimum, all equipment and infrastructure will be inspected for signs of corrosion, leaks, and waste build-up, as applicable. Infrastructure will also be inspected in accordance with manufacturers' recommendations. Additional inspections will be performed in accordance with the facility's Odor Management Plan, and Stormwater BMP Inspection Log. All infrastructure maintenance will be scheduled in accordance with manufacturers' recommendations unless otherwise indicated as necessary through routine inspection.

A copy of the Facility Inspection Checklist, as well as responses to any issues noted during the inspection, will be maintained at the facility and a summary of inspection results, including date of inspection and follow-up actions taken, will be included in the facility's annual report.

B.10 Erosion and Sedimentation Control

The facility must control sedimentation and erosion during operation of the facility as required by the facility's Stormwater and Erosion and Sediment Control Plan.

B.11 Tipping Floor Management Plan

During the MSW unloading process, a tip floor attendant will observe the loads as they are unloaded and identify and examine any material suspected of being unacceptable waste. Additionally, the loader operator will continuously look for material that may appear to be unacceptable waste as the incoming material is spread and stockpiled. Following the initial tip floor inspections, the waste will be stacked in distinct, segregated areas or zones of the MSW storage area such that the waste can be processed in the order that it enters the facility, i.e., first in/first out.

C. ACCESS TO FACILITIES

Fiberight shall provide, and maintain in good repair, access roads at the facility site as well as maintain adequate space to allow the unobstructed movement of emergency personnel and equipment to operating areas of the facility.

Fiberight's normal operational hours are:

Monday - Friday: 6:00 AM to 6:00 PM
Saturday: 6:00 AM to 2:00 PM

D. ACCEPTANCE AND DISTRIBUTION OF SOLID WASTE

D.1 Acceptable Waste

In general, MSW that is accepted at the facility includes solid waste emanating from household and normal commercial sources. Fiberight may only accept wastes for which the facility has been specifically designed and permitted to accept by the MDEP. Incoming wastes must undergo a visual inspection and, if appropriate, analysis to ensure that only wastes allowed by the facility license are accepted at the facility. Screening for unacceptable waste will start at the scale house where the scale house attendant will randomly interview drivers as to the contents of their loads. A list of common unacceptable items will be clearly posted at the scale house. During the unloading process on the tip floor, a tip floor attendant will observe the loads as they are unloaded and examine any material suspected of being unacceptable waste. Additionally, the loader operator will continuously look for material that may appear to be unacceptable waste as the incoming material is spread, stockpiled and eventually fed onto the conveyors feeding the Primary Sort Process. There will be a designated safe area on the side of the tip floor where a container(s) will be positioned such that any unacceptable waste will be set aside for temporary storage until appropriate

disposal can be arranged. Fiberight will install a Closed Circuit Television (CCTV) system that will include cameras positioned to view the tip floor. To the extent practicable, Fiberight will use this system to augment visual inspections, and to track the source of any unacceptable waste.

D.2 Hazardous and Special Waste Handling and Exclusion Plan

A Hazardous and Special Waste Handling and Exclusion Plan is included in **Appendix D** of this Plan.

D.3 Secondary Materials

Secondary materials consist of post hydrolysis solids (PHS) resulting from the gasification of biomass residues. Solid residues from the hydrolysis process will be used in the facility's gasification boiler to serve the facility's electrical and heating needs. A Beneficial Use License (refer to 06 096 CMR Chapter 418.3.G) is not anticipated because the secondary materials are generated at the facility and will be combusted in the facility's boiler.

Secondary materials must be distributed in accordance with the provisions of this Manual (refer to Section D.4 below), or other applicable solid waste standards.

D.4 Waste Disposal

The Operator must have procedures in place for disposal of residues and other solid waste generated by the processing facility, including contingency procedures for implementation during emergencies and shutdown periods. The Operator must also maintain a valid contract with a solid waste facility that has MDEP approval to accept the waste.

Residue waste generated at the facility generally includes non-processibles, materials processing residue, and ash from the gasification of post hydrolysis solids/wood residues which will be used as boiler fuel at the facility, all of which will be landfilled at licensed solid waste facilities. Biofuel will be sold as Compressed Natural Gas (CNG). All residues separated from MSW will be transferred to a licensed disposal company in the State of Maine. Fiberight currently anticipates transporting all residues and bypass MSW to Crossroads Landfill in Norridgewock, and/or the Juniper Ridge Landfill in Old Town, and /or the Tri Community Landfill in Fort Fairfield; and/or the Hatch Hill Landfill in Augusta.

No liquid waste will be generated except for a process wastewater stream caused by periodically purging the plant water system. This process wastewater stream is collected in a tank, tested and discharged to the local wastewater treatment plant for processing.

Any other waste resulting from cleaning and maintenance of the facility will be processed or landfilled as described above.

D.5 Treated Wood

Wood accepted at the Fiberight facility will only be the small fraction that is expected to be included with incoming MSW. Fiberight will not accept separate supplies of woodwaste or process woodwaste such that it will be marketed and sold as biomass wood fuel, mulch or alternative daily landfill covers.

Fiberight does not accept construction and demolition debris wood or any source-separated treated wood for processing at their facility.

E WASTE CHARACTERIZATION

E.1 Analytical Requirements

In accordance with 06 096 CMR Chapter 405.6.C. solid wastes proposed to be disposed at a solid waste disposal facility must be characterized in conformance with the requirements listed in 06 096 CMR Chapter 405.6.C. Fiberight will be producing non-organic residues and ash requiring disposal at a licensed solid waste facility. Non-organic residues which may be classified as "Miscellaneous Wastes" listed in 06 096 CMR Chapter 405.6.C.(2). The analytical requirements listed include the following:

- Complete Toxicity Characteristic Leaching Procedure (TCLP) (per US EPA Method 1311, Federal Register/Volume 55, No. 126, 1992);
- Totals for Aluminum, Arsenic, Barium, Boron, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, and Zinc (per Methods in US EPA SW-846);
- Chloride, percent carbon, percent moisture, pH, phosphorus;
- Reactivity Characteristics;
- Ignitability Characteristics; and
- Additional parameters as identified by the applicant or the Department. These additional parameters must be based upon the raw material, the proposed activity, or the facility.

Fiberight anticipates generating between 3,000 and 4,000 tons of ash per year in the facility's biomass boiler. Ash will be disposed of in a landfill licensed to accept it and will be characterized in accordance with 06 096 CMR Chapter 405.6.C(4) and sampled for those parameters listed for biomass and fossil fuel boiler ash. Prior to initial acceptance at a solid waste facility, a sufficient number of samples to meet the requirements for statistical analysis as required by US EPA SW-846 must be analyzed as follows:

- TCLP Metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver) per US EPA Method 1311, Federal Register/Volume 55, No. 126, 1992;
- Chloride, percent carbon, percent moisture, pH, phosphorus.

After initial characterization is complete, ash must be analyzed for the parameters listed above at a frequency of one representative sample quarterly.

Additional analytical requirements may be required by the disposal facility receiving waste for disposal.

F. ODOR CONTROL

F.1 Introduction

Due to the nature of the wastes that are accepted at the Fiberight facility, the potential for occasional odors may exist. Multiple systems and procedures have been included in the design of the facility to minimize any off-site odor migration. An inspection and maintenance plan has also been developed to ensure that staff is able to quickly identify and mitigate any potential causes of nuisance odor. The Air Control and Odor Management Systems are outlined in Section F.2 below. Odor Inspection and Maintenance Procedures are outlined in Section F.3.

During normal operation of the facility, there may be times when the waste processing operation is suspended to perform maintenance on the equipment. To control odors that may occur during these outages a Start-Up, Shutdown, and Malfunction Plan for waste storage has been developed. This plan is outlined in Section F.4.

While systems have been designed to minimize any off-site odor, Fiberight has established an Odor Complaint Response Program to allow residents or businesses near the facility to report any potential issues, should they occur. This program also assists Fiberight with early identification and mitigation of any potential odor issues. The basic procedures for accepting and responding to an odor complaint are detailed in Section F.5. This section also provides the operator with a list of additional controls that can be implemented to address any sources of odor that may be identified.

F.2 Air Control and Odor Management System

The Fiberight facility has been designed to allow the operator to maintain negative pressure by the use of a multiple hood/intake register air removal system within the waste handling and processing areas of the building. In order to manage air-flow appropriately, two separate scrubber systems will be provided and sized to maintain a pressure of negative 0.1 inches of water column when the overhead doors are open. One of the odor scrubber trains will run continuously to maintain the design negative pressure, with the second system designed to supplement the primary odor scrubber system when the doors are open for waste delivery. To minimize the length of time the doors are open, to the greatest extent practicable, the door system design will incorporate high-speed fabric over-head doors to allow them to open and close at a faster speed than conventional over-head doors. Air control hoods/registers have been strategically placed within the building to target areas where waste odors are more likely to be present. Each scrubber system has been designed with a cross-flow scrubber and a packed tower scrubber installed in series. The system is designed to remove odorants from the air prior

to its discharge. The proposed odor control scrubbers will provide 95% control of ammonia, 99% control of hydrogen sulfide, and 99% of volatile organic compounds (VOCs). The filter media within the scrubbers is high efficiency polypropylene spherical packing through which the liquid scrubbing media flows to contact the gas stream. The media within the scrubber systems will be inspected and replaced in accordance to the manufacturer's recommendations.

Waste hauling vehicles are another potential source of odor at the facility. While Fiberight is not responsible for odors caused by these trucks while they are travelling to the facility, the operator has agreed to work with the haulers to minimize the risk of off-site odors caused at the facility due to idling vehicles. In the event that there is a waste truck that exhibits a higher degree of odor, the facility operator will prioritize that vehicle for entrance into the tip floor where odors can be controlled by the odor scrubber system operating in the tipping area. Fiberight will initiate communication with the hauler to identify the source of the waste and discuss potential ways to mitigate this situation in the future. Trucks from locations that typically have a higher degree of odor may be scheduled for receipt in order to minimize the time the truck is in queue.

The facility operator will maintain sufficient odor neutralizing agents on-site to respond to individual trucks or localized areas of the facility in a timely manner. Odor neutralizing agents will likely be in the form of powders and sprays that will allow for the appropriate application method based on the odor source.

F.3 Odor Inspections and Maintenance Procedures

As part of operations of the facility, regular inspections will be performed. These inspections will include checks for existing odor as well as potential odor causing issues on the site. These inspections will include, at a minimum, daily visual observation of the operations for obvious signs of damage or abnormal conditions within the building that will affect collection efficiency of the odor control system. During the first month of operation a daily inspection and odor survey will be conducted around the facility. If no odor issues are identified during the first month, inspections will be reduced to weekly. To assist the operator with continuous visual observations, visual indicators will be provided to ensure that air is being pulled into the building and from the hoods/registers.

The facility inspection should be conducted by a staff member that has not become desensitized to waste odors. During the inspection, the individual should walk around the facility and look for conditions that may cause odor and note any odor that was observed. Examples include: buildup of liquid on the access road that may have come from waste haul vehicles; odors observed around the stormwater ponds; and strong odors noted at any distance from the facility when the doors are opened. Any follow-up actions should be noted on the inspection form. This information will be used by the facility to schedule appropriate maintenance and further identify necessary odor control systems.

F.4 Start-up, Shutdown, and Malfunction

There may be times during operations of the facility that systems will be offline for repairs due to scheduled maintenance or malfunction. Scheduled maintenance will be organized such that if possible, partial processing can still be carried out during these periods including the maintenance on the odor control systems. During these times, the operator will minimize the amount of waste material stored on-site and match the quantity stored with what is needed for continued processing at the then current capacity. It should also be noted that the odor control scrubbers will still be in operation during scheduled and unscheduled shutdowns of the balance of the facility.

If the scheduled maintenance or malfunction of the facility is of such a nature that the waste material stored on-site would not be able to be processed within seventy-two (72) hours, such as is the case for a long weekend, the operator has made arrangements with Waste Management's Crossroads Landfill in Norridgewock, Maine to accept bypass waste from the facility. In such circumstances, waste will be diverted at the earliest possible time to allow for minimal waste storage on the tipping floor during the shutdown. For extended shutdowns, the waste diversion procedures described above will be followed. Whenever possible, maintenance activities will be conducted during hours that the facility is not receiving waste. This will allow the operator to keep the overhead doors in the closed position and to continuously operate at least one of the two odor scrubber trains. Unless there is an emergency condition, maintenance or repair activities that require both scrubber trains to be shutdown will be performed at scheduled times. The operator will reduce the quantity of waste to the maximum extent possible during these scheduled outages.

F.5 Odor Complaint and Response Plan

Fiberight is aware that, as a solid waste facility, odors may be experienced on-site. Fiberight has taken numerous steps to minimize the migration of odors from the facility, and is committed to being a good neighbor and responding to any neighbor odor complaints that may be received. To better serve the surrounding community, the operator has established the following protocol for responding to odor complaints.

F.5.1 Phone Number for Complaints

Since the facility will be continuously operated, trained staff will be available to receive odor complaints from the public 24 hours per day, 7 days per week. The operations manual will be amended to include a facility contact phone number once construction of the facility is completed.

F.5.2 Basic Process for Odor Complaint Response

The basic steps to be followed when responding to an odor complaint is as outlined below:

1. When an odor complaint call is received, Fiberight staff shall obtain the necessary information from the caller to fill out an Odor Complaint Response Form (Form). This information includes: the caller's name and address; date and time of the complaint;

and whether the caller would like someone to visit them at the location of the complaint to verify the odor. A copy of the Odor Complaint Response Form can be found in **Appendix G**.

2. The Form will be completed by the staff member answering the phone and the information relayed to the appropriately trained response staff for follow-up action.
3. If a visit is requested, the appropriate staff member should note the conditions observed during the visit. At a minimum, the following should be noted; wind direction, distance from the facility, and odor noted.
4. If a visit is not requested, or upon return from a visit, staff should perform an inspection of the facility to check for obvious sources of potential odor. Upon completion of the inspection the appropriate corrective measures should be taken.
5. The Fiberight staff member who is addressing the complaint shall notify Fiberight's Operations Manager within four hours of the complaint and notify MRC (as the landlord and owner of the property) and MDEP (as the regulatory agency) of the complaint immediately.
6. If MDEP determines that the facility created an off-site odor nuisance, Fiberight will submit a written report to the Department detailing the cause of the nuisance odor, follow-up actions taken, as well as plans for future treatment, minimization, and control of nuisance odors. This report will be submitted within 30 days.

F.5.3 Future Odor Control Options

Should odors become an issue for the facility, and nuisance odors begin to migrate from the property to off-site occupied buildings, there are numerous options that can be employed at the facility.

1. Regular street sweeping/washing of the access road. During particularly dry periods of time, leakage from haul vehicles could accumulate on the access road and cause odors. An application of water for dust and odor control as well as sweeping could help to mitigate this issue. If regular washing, with water alone, is not sufficient, odor neutralizing agents can be added to the equipment to further reduce odors. As previously stated, odor neutralizing powders and spray will be stored on-site in order to minimize the time frame necessary to address odor issues.
2. Odor neutralizing spray within the building. Should the vacuum system within the building prove insufficient to control nuisance odors, or require short term maintenance, odor neutralizing spray could be applied to the waste on the tipping floor to reduce odors.
3. Odor neutralizing misting system. An odor neutralizing misting system could be installed along the boundary of the waste handling area, downwind of the operations, to assist in off-site odor control should odors begin to migrate off-site.
4. If the above measures are not sufficient to mitigate nuisance odors at off-site occupied buildings, the Operator will supplement the odor control systems to address the specific odor sources and issues causing nuisance odors.

F.5.4 Documentation Retention and Reporting

All documentation required to be prepared by this plan (e.g., Odor Complaint Response Form, Inspection Report Form, Odor Inspection Form) shall be maintained on-site for five years and copies provided to MRC and MDEP upon request.

G. RECORD KEEPING

Fiberight must make provisions to keep the following records and make them available for MDEP inspection and copying for the duration of the facility operation and a minimum of two years after facility closure:

1. When applicable, as-built engineering drawings of the facility, including a schematic showing the relationship of the various subsystems;
2. Analytical data results required by these rules or license conditions;
3. An Operation and Maintenance Manual meeting the requirements of this section 4.A; and
4. Copies of periodic and annual reports submitted to the MDEP.

Other records that should be kept so that easy preparation of the Annual Report required to be submitted to the MDEP are discussed in Section I below.

H. PERIODIC REPORTING

Fiberight shall submit periodic reports to the MDEP containing the results of environmental monitoring, including waste characterization and any other information required in accordance with the facility license.

I. ANNUAL REPORT

By February 28 of each year, the facility operator must pay an annual facility reporting fee to the State of Maine, as established by the Department, and submit an Annual Report to the MDEP for review and approval for the previous calendar year. The Annual Report must include a summary of activity at the facility during the past year, including a discussion of any odor problems, and a discussion of any factors, either at the facility or elsewhere, which affected the operation, design, or environmental monitoring program of the facility. The Annual Report must summarize the facility's activities, and at a minimum include the following:

1. Weight or volume and type of wastes received by the facility and the data and results of the waste characterization;
2. Weight or volume and type of product and secondary material produced;
3. Weight or volume and type of secondary material used on-site and destination, and uses for material distributed off-site;

4. Weight or volume and type of waste and secondary material stored on-site as of December 31;
5. Weight or volume and description of residuals leaving the facility for disposal, by destination, and the data and results of the waste characterization;
6. A demonstration that the facility meets the state's minimum recycling rate of 50%., through an analysis of the data provided in items 1-5 above, in accordance with *Processing Facilities, 06-096 CMR 409(4)(I)(d) and (e)*;
7. A general summary of the processing operation including problems encountered and follow-up actions, changes to the facility operation, and a summary of odor or other complaints received by the facility, as well as the responses to the complaints, during the previous year; and
8. Other alterations to the facility site, not requiring MDEP approval, that occurred during the reporting year. Minor aspects of the facility site proposed to be changed in the current year may be described in the Annual Report. Changes handled in this manner are those that do not require licensing under minor revision or amendment provisions of Chapter 400.

J. FACILITY CLOSURE

J.1 Closure Plan

Fiberight shall submit a Closure Plan to the MDEP a minimum of 90 days prior to the proposed date of the permanent closure of a solid waste processing facility. This must be submitted as a proposed minor revision to the existing facility license. The Plan must include:

a. An outline of the proposed closing operation;
b. A schedule for the removal of all stored wastes and secondary materials; and
c. The intended destination of all stored wastes and secondary materials.

J.2 Closure Performance Standard

The facility must be closed in a manner that minimizes the need for further maintenance; and so that the closed facility will not pollute any waters of the State, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance. At a minimum, the Applicant must remove all wastes and secondary materials from the facility; and broom-clean the facility structures and equipment.

APPENDIX A

LOCATION MAP AND SITE PLAN

APPENDIX B

SOLID WASTE LICENSE

APPENDIX C

MAINE SOLID WASTE MANAGEMENT REGULATIONS

APPENDIX D

HAZARDOUS AND SPECIAL WASTE HANDLING AND EXCLUSION PLAN

HAZARDOUS AND SPECIAL WASTE HANDLING AND EXCLUSION PLAN

Facility Safety Officer

The facility Supervisor shall be designated as the "facility Safety Officer." Annually, the facility Safety Officer shall work with the Hampden Fire Department to provide training to the operation staff on:

- Detection of hazardous and special waste;
- Appropriate notification procedures; and
- Appropriate handling procedures.

Identification/Notification of Unpermitted Wastes

Unpermitted hazardous and special wastes shall not be accepted at the Fiberight facility. To ensure this, employees shall check all waste being deposited at the facility. The type of container and origin of the waste can help identify hazardous wastes and special wastes. Under no circumstances are people allowed to deposit any waste other than those listed in Section D.1 of this Manual.

If an unknown waste is observed by employees, the following list shall be used as guidance to help identify and handle materials of concern. Excluded items are not limited to those specifically listed below.

- Calcium Hypochlorite**:** Used for disinfecting pools but is reactive when wet. Can release chlorine gas and cause fire when wetted. Treat as hazardous; prevent wetting or contact with moisture; if wetted, evacuate area. Keep away from petroleum and other organic materials.

- Asbestos: Friable asbestos insulation which can easily become airborne is of the most concern. However, asbestos can take many forms and can be combined with other materials to sometimes make non-friable asbestos siding, flooring, or other products. If suspected to be or contain friable asbestos, contact the MDEP asbestos abatement program personnel at telephone number 207-287-2651. Avoid inhalation of particles.

- Bio-Medical Wastes: May be red bag waste from hospitals, laboratories, clinics, nursing homes, and occasionally doctors' offices. These wastes include blood, body parts, disposable instruments, linens, and other soiled items. Keep people away, follow hazardous waste procedures, including notifying the appropriate responder either a qualified Fire Department or the MDEP. If accidentally contacted, disinfect contact area with 1:3 bleach to water solution.

- Industrial Chemicals: Generally, liquid in 5 gallon or larger pails or drums of either plastic or steel. Occasionally lined cardboard barrels are used. Also some solids, especially flakes or granular materials, can cause excessive corrosion or be reactive with liquids. Solids may be in any form of container including loose. Avoid skin contact and breathing exposure; treat as hazardous.

- Laboratory Chemicals: Usually in smaller containers of one pint to one gallon, glass or plastic bottles. Laboratory Chemicals can be severe irritants, highly toxic or explosive. Avoid skin contact and breathing exposure; do not open or jar containers. Treat as hazardous.

- Sandblast Grit: Generally fine sand or garnet mixed with paint, brick, and/or masonry chips. Avoid breathing; handle as special waste.

- Waste Oil: Includes used motor oils, hydraulic fluid, or other lubrication oils from individuals, farm operations, and vehicle and heavy equipment repair firms. Avoid skin contact; direct this material to the on-site used oil collection area.

Finding and Reacting to an Unknown Waste

When unknown material is found at the facility, Fiberight shall identify the material to determine whether it is a licensed solid waste, special waste, universal, or hazardous waste. If the identified material is a hazardous waste, Fiberight shall attempt to identify the person who has left, delivered, or attempted to deliver the hazardous waste and notify the MDEP.

- While keeping a safe distance upwind from the material, the employees may attempt to determine the following, if safe to do so:
  - Look for container or waste labeling.
  - Determine the physical state of the material (solid, liquid, or gas).
  - Estimate container size or amount of waste.
  - Determine the type and condition of the container or packaging.

- If the material is determined to potentially be hazardous, the employees shall:
  - Evacuate and secure the area of the facility around the material.
  - If safely feasible, determine if there is any release of the material to the soil, water, or air.
  - If safely feasible, determine if any release found has been confined or is ongoing.
  - Undertake the appropriate notification procedure below.

Notification

When hazardous waste or suspected hazardous waste is found left at the facility, employees shall:

- Notify the Hampden Fire Department at 862-4586

- Notify the MDEP anytime at 1-800-482-0777 or the Maine State Police at 1-800-452-4664.

When unpermitted special waste is found left at the facility, Fiberight shall notify a Solid Waste Staff person at the MDEP regional office between 8:00 a.m. to 5:00 p.m., Monday through Friday. Once approved by MDEP, Fiberight shall authorize removal of any unpermitted waste.

If Fiberight cannot identify the material; notify the Hampden Fire Chief and the MDEP at the number listed above for assistance in identification. If sampling and further detection of hazardous or special waste is required, a qualified hazardous waste handling firm or solid waste contractor must be used, as appropriate.

Clean-up/Decontamination

Only trained personnel shall handle hazardous wastes. Such training shall follow the guidelines of 29 CFR Part 1910.120. Unpermitted special wastes shall be removed from the area where found and transported to a special waste disposal facility licensed to accept that special waste within 60 days. Because hazardous wastes require special training to handle, and to minimize the area of potential, it is recommended that any hazardous waste found at the solid waste facility be removed by qualified personnel from the site directly.

Emergency Information

Fiberight shall have the following telephone numbers available at the facility for telephone notifications:

MDEP-Bureau of Remediation & Waste Management, Bangor Office	941-4570	Normal business hours
MDEP-Emergency Spill Hot Line	1-800-482-0777	After hours or weekends
Hampden Fire Department	862-4586	
Hampden Police Department	862-4000	
Ambulance	911	
Maine State Police	1-800-452-4664	For reporting hazardous waste
Maine Poison Center	1-800-442-6305	

The closest location for emergency medical care is Eastern Maine Medical Center (EMMC) in Bangor.

Directions to EMMC

1. North on Interstate 95.
2. Take Hogan Road exit in Bangor and turn right onto Hogan Road.
3. Follow Hogan Road approximately 1 mile and merge onto State Street.
4. Continue following State Street for approximately 8/10 mile.
5. Turn Left into EMMC Emergency Room.

Written Reports

A written report shall be filed with the MDEP-Bureau of Remediation & Waste Management within 15 days of any incident involving hazardous waste or material.

The report must indicate:

- Date and time of incident;
- Location;
- Material lost or spilled;
- Amount lost or spilled;

- Amount recovered;
- Cause of the incident;
- Corrective action taken;
- Clean-up method used;
- Disposition of recovered materials;
- List of agencies notified; and
- Time agency responded on-site.

APPENDIX E

HAZARDOUS AND SPECIAL WASTE EXCLUSION REPORTS

APPENDIX F

DAILY INSPECTION FORM

ODOR INSPECTION REPORT FORM

Date: _____
Inspector Name: _____
Weather Conditions: _____

Building Condition

Obvious damage to overhead doors? (y/n)
Odors noted when door is closed? (y/n)
Odors noted when door is open? (y/n)
Visual evidence of negative air at the door? (y/n)
Obvious damage to building walls? (y/n)

Yard and Access Road Condition

Any waste present around the facility? (y/n)
Any waste or liquid spillage on the access road? (y/n)
Any odor noted away from the building? (y/n)
Any odor noted around the stormwater management structures? (y/n)

Follow-up Notes

Please list any other conditions noted during the inspection and the steps taken to correct the issue:

_____
_____
_____
_____
_____
_____
_____

APPENDIX G

ODOR COMPLAINT RESPONSE FORM

ODOR COMPLAINT REPORT

Top portion of this form is to be filled out at the time of the complaint.

Date: _____

Time: _____

Name of caller: _____

Contact information for the caller:

_____

Location of complaint: _____

Does the caller wish to have the odor verified? (y/n)

****

Bottom portion of this form is to be filled out by the responder.

Was a visit to the caller conducted? (y/n)

Distance of the complaint from the facility: _____

Was an odor noted? (y/n)

Was the caller's location downwind of the facility? (y/n)

Is there anything unusual happening at the facility? (Shutdown, maintenance, etc.?) (y/n)

Any unusually odorous waste loads delivered? (y/n)

Was a follow-up inspection conducted at the facility? (y/n)

_____

List any items identified during the inspection that require attention.

_____

_____

What steps were taken to correct any issues identified?

_____

_____

_____

APPENDIX H

OPERATING RECORDS

APPENDIX I

SOURCES OR ASSISTANCE

SOURCES OR ASSISTANCE

Consultant:
CES, Inc.
Denis St. Peter, P.E.
465 South Main Street
Brewer, Maine 04412
Office: 989-4824

Owners:
Fiberight, LLC
853 Industrial Park Drive
Lawrence, VA 23868
Office: 410-340-9387

Municipal Review Committee, Inc.
395 State Street
Ellsworth, ME 04605
Office: 207-664-1700

Police:
Hampden Police Department
106 Western Avenue
Emergency Tel: 911
Non-Emergency Tel: 862-4000

Fire:
Hampden Fire Department
106 Western Avenue
Tel: 862-4586

Asbestos Handling & Disposal:
Asbestos Removal, Inc.
739 Odlin Road
Bangor, ME 04401
Tel: 947-4035

Hazardous Waste:
Bureau of Remediation and Waste Management
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333-0017
Office: 287-7800

Solid Waste Facilities Regulation:
Bureau of Remediation and Waste Management
Maine Department of Environmental Protection
106 Hogan Road
Bangor, ME 04401
Attn: Karen Knuuti
Office: 941-4570

ATTACHMENT 25

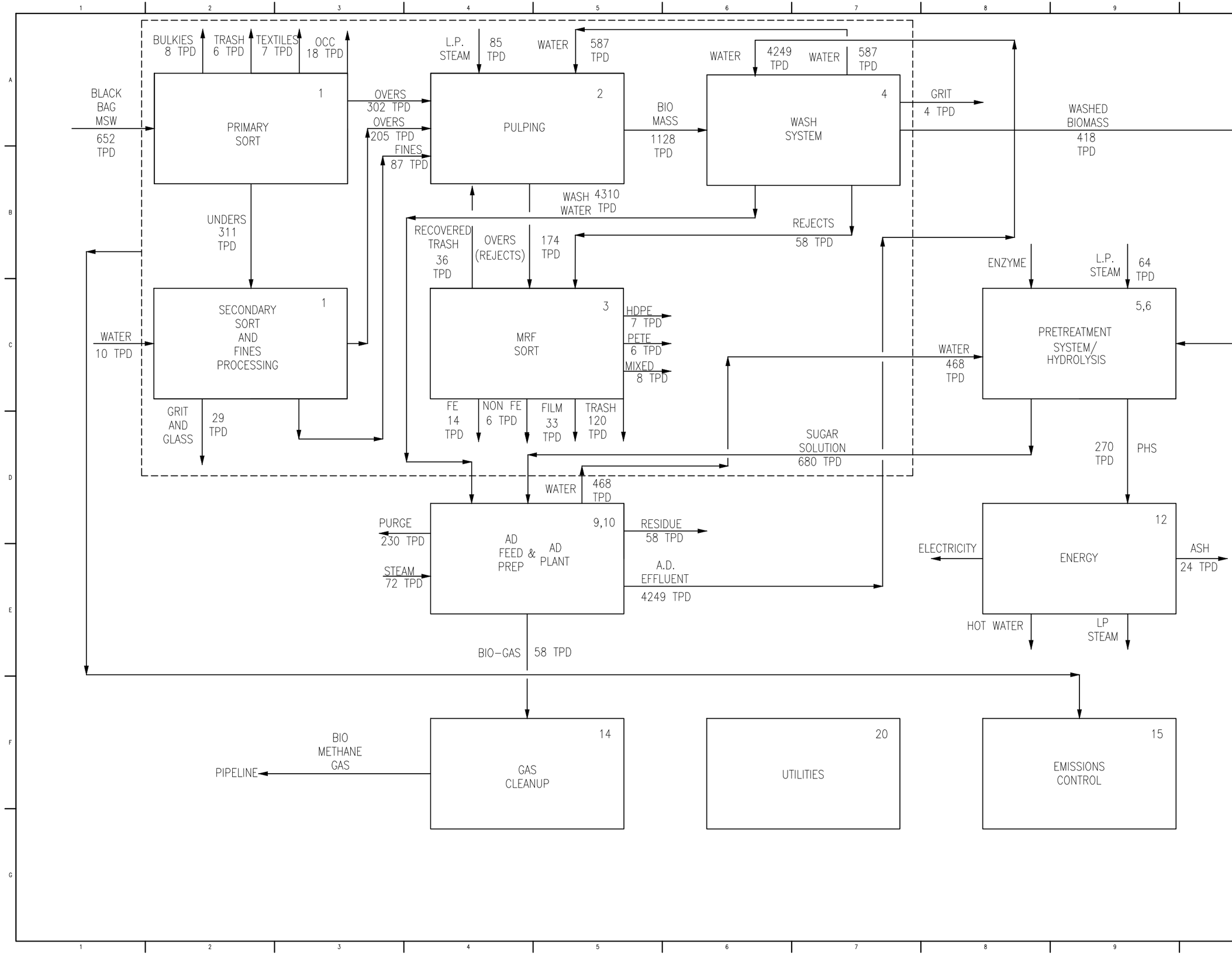
SOLID WASTE HIERARCHY

Hampden Maine Mass Balance Summary

Stream	Recovered	Disposed	Total
Bulkies - Primary Sort	3	5	8
OCC - Primary Sort	18	0	18
Textiles - Primary Sort	0	7	7
Trash - Primary Sort	3	3	6
Grit/Glass- Secondary Sort[1]	29	0	29
Grit - Wash[1]	4	0	4
Fe - MRF Sort	14	0	14
Non-Fe - MRF Sort	6	0	6
Film - MRF Sort	33	0	33
Trash - MRF Sort[2]	0	120	120
HDPE - MRF Sort	7	0	7
PETE - MRF Sort	6	0	6
Mixed Plastics - MRF Sort	8	0	8
Comb DAF Residues - AD Feed	40	18	58
Bio-gas - AD Plant	58	0	58
PHS (Net of Ash)	246	0	246
Combined Boiler Ash	0	24	24
Totals	**475**	**177**	**652**

Note 1: Washed Grit/Glass intended to be used as Alternative Daily Cover (ADC)

Note 2: 45-50 TPD of the listed 120 TPD of trash is potentially recoverable material subject to economically converting it to a marketable condition



Fiberight LLC
PO Box 21171 Catonsville, MD 21228
www.Fiberight.com

REV.	DATE:	DESCRIPTION	DRAWN	REVIEW	APPR.	APPR.
A		ISSUED FOR REVIEW	ST			

PROJECT NO:

DESIGNED BY: Fiberight
DRAWN BY: Andy Gotsch
REVIEWED BY:

PLOT SCALE: 1:1
PLOT DATE: 26FEB16

BLOCK DIAGRAM

AS RECEIVED MASS BALANCE

MAINE

FILE NAME: C:\Users\Fiberight\Desktop\Work Package\Maine\Block Diagram 15-7-28.dwg