APPLICATION OF GALES FERRY INTERMODAL, LLC TO LEDYARD PLANNING AND ZONING COMMISSION

NARRATIVE DESCRIPTION OF CONSTRUCTION SEQUENCING AND EROSION AND SEDIMENTATION CONTROL PLAN RELATIVE TO INDUSTRIAL SITE PREPARATION PLAN FOR FUTURE INDUSTRIAL DEVELOPMENT WITH THE REMOVAL OF SURFICIAL AND AGGREGATE MATERIAL ON PROPERTIES LOCATED AT 1737 AND 1761 ROUTE 12, LEDYARD, CONNECTICUT (THE “PROPERTY”)

DATE: SEPTEMBER 29, 2023
REVISED: OCTOBER 11, 2023

OVERVIEW

Today’s vision is tomorrow’s reality. Opportunities are a moment in time. While this project, in a vacuum may not be considered significant development, it will translate to a highly attractive site for very significant future economic development when that opportunity presents itself. With the logistical and infrastructure advantages of this site, being ready to take advantage of that opportunity when presented will be critical, both for the Applicant and the Town of Ledyard. The instant application is an application for modification of Special Permit PZ#23-4SUP (mixed commercial/industrial uses) to add the following additional special permit use on the Property (as hereinafter defined) – “Excavation Major” to the existing uses that have been approved by the Ledyard Planning and Zoning Commission and its predecessor, the Ledyard Zoning Commission. This modification of the existing special permit seeks approval for the phased removal of surficial material and aggregate, together with the processing of aggregate material for transport offsite (primarily via barge), on an approximate 40-acre portion of a 165 acre site (the “Property”) owned of record by Gales Ferry Intermodal, LLC (the “Applicant”) located on the westerly side of Connecticut Route 12 and easterly of the Thames River. The entire property owned by the Applicant is located in the Industrial Zoning District classification as evidenced by the Zoning Map of the Town of Ledyard, Connecticut adopted by the Ledyard Planning and Zoning Commission (hereinafter, the “Commission”). A portion of the area proposed for the excavation use modification of the existing Special Permit for which this application is submitted consists of urban land (currently paved with an environmental cap) which was utilized by the Dow Chemical Company/Trinseo/AmSty (see photo below) in conjunction with its industrial operations on the Property. The remainder of the area which is the subject of this application is located in the southerly portion of the Property and is separated from the neighborhood to the south by both (i) a 250’ wide Eversource recently upgraded 135 KV Transmission Line which bisects the Property in an easterly-westerly direction and links high voltage power across the Thames River from Montville to a newly reconstructed (2022-2023) Eversource substation on Connecticut Route 12 and (ii) the remainder of the Applicant’s land which is located southerly of the transmission line easement.
An historic site, known as Fort Decatur, is located on the Property immediately to the east of the transmission line easement. The Applicant has retained the services of Heritage Consultants, David R. George, M.A., R.P.A., to investigate the site to (i) determine its historical significance and (ii) develop a cultural resource plan for the protection and preservation of the historic resources located in that area. That investigation has resulted in the publication of a report entitled “Phase 1A/1B Cultural Resource Assessment & Reconnaissance Surveys of the Gales Ferry Intermodal Project, Ledyard, Connecticut Prepared For: Gales Ferry Intermodal, LLC 549 South Street, Quincy, Massachusetts 02165”. The plan for the proposed industrial grading activities on the Property has been modified through the development phase to incorporate the recommendations of Heritage Consultants. The report has been reviewed with the Connecticut State Historic Preservation Office and the Applicant is working cooperatively with staff of that agency to avoid/limit impacts to the archaeological resources and visual impacts to this recognized historic property.

As presented in the previous mixed use application submitted to and approved by the Commission, there is currently little usable industrial property located within the limits of the property owned by the Applicant. Those limitations result from (i) the use of approximately 21 acres of the Property by Americas Styrenics and its associated industrial operations (ii) the presence of Allyn’s Pond and its associated riparian wetlands (iii) areas of former Dow Chemical Company operations which are currently the site of environmental remediation activities (iv) areas of the site which are the subject of environmental restrictions and (v) the whole southerly portion of the Property which is either encumbered by the Connecticut Light and Power Company transmission line easement or segregated from the remainder of the Property by that easement.

The area of proposed excavation is intended to create 40 +/- acres of prime, level industrial land to promote future industrial growth, ratables and employment opportunities within the Ledyard community. The plan will be implemented in five phases as indicated on the Grading and Drainage Overall Phase Plan prepared by Loureiro Engineering Associates and submitted for consideration with this application.

As depicted on the overall site plan entitled “Gales Ferry Intermodal Industrial Site Preparation Plans Gales Ferry Intermodal 1737 & 1761 Route 12 Gales Ferry, CT 06335 April 3, 2023 Revised: June 6, 2023 Revised: July 10, 2023 Revised: September 27, 2023 Property Owner/Applicant: Gales Ferry Intermodal LLC 549 South Street Quincy MA 02169 Sheets 1 of 13 to 13 of 13” prepared by Loureiro Engineering Associates, Inc. (the “Plan”), the finished
industrial pad will be created with a positive grade to accommodate stormwater runoff until further development occurs sloping from an elevation of 42 adjacent to Route 12 to elevation 16 along its southwesterly limits.

The Applicant has received approval for the proposed excavation operations from the Town of Ledyard Inland Wetlands and Watercourses Commission. All activities contemplated by the instant special permit modification application have received all regulatory approvals required from the municipal Inland Wetlands and Watercourses Commission.

Pursuant to the provisions of Section 6.4 of the Ledyard Zoning Regulations, major excavation operations (i.e. greater than 300 cubic yards) are uses allowed upon the granting of a special use permit in the industrial zoning district. This particular use is further governed by the following requirements of the Zoning Regulations of the Town of Ledyard: Section 8.16 (excavation), Section 8.23 Mixed Use (commercial and industrial uses), Chapter 9, Site Development Standards, including Section 9.12 – Consolidated Parcels, Chapter 11 – Applications Requiring Commission Approval, including Section 11.3 et. seq. concerning special permit standards and evaluation criteria. This application is submitted in compliance with those Regulations.

Soil testing conducted on the Property evidences the fact that the proposed rock removal area is overlaid with a layer of surficial material which is more particularly described in Exhibit A to this Narrative entitled “Soil Characteristics”. This overburden material is underlaid with high quality rock which is an essential component of structural material for the construction industry. The quality of the rock which is prevalent throughout the proposed regrading area ensures that there is a viable market for the material created by the extraction, processing and regrading operations which will alleviate the need to stockpile excessive amounts of material onsite. The Applicant envisions the vast bulk of the rock and processed materials will be exported via barge over the newly constructed 300’ heavily reinforced pier on the westerly side of the Property (see recent photo below).

![ Newly constructed pier with Montville Power Plant and transmission lines in background ]

Aggregate is a natural resource which is needed to sustain the everyday economy of the
Town of Ledyard, the southeast region of the State of Connecticut and the State itself. Extracting and processing rock and aggregate in this proposed location not only will create a substantial amount of prime industrial land for future economic development within the Town of Ledyard, but also provide an essential product required for infrastructure projects throughout the region including revetment and resiliency projects and foundation material for proposed offshore wind turbines. Due to the nature of the proposed activity, proper design controls and cultural controls have been incorporated into the methodology to be utilized in accomplishing this project to ensure that the removal of structural rock and the resulting creation of prime industrial land to accommodate future economic development is conducted in an environmentally and ecologically appropriate manner. The plan for this proposed excavation operation, prepared by Loureiro Engineering Associates, Inc., and this Narrative, specify, in detail, the way the proposed excavation component of the mixed industrial and commercial use of the Property will be conducted in compliance with the requirements of the Ledyard Zoning Regulations and in a manner which will both (i) mitigate adverse impacts and (ii) protect the Fort Decatur historic resource located on the Property.

**GENERAL PROCEDURES**

1. Prior to the initiation of construction activities on the project site, the Applicant shall meet with the Zoning Enforcement Officer and Wetlands Enforcement Officer of the Town of Ledyard to agree upon the methodology for the installation, maintenance and repair of erosion and sediment control measures as delineated on a plan entitled “Industrial Site Preparation Plan: Soil Erosion & Sediment Control And Phasing Gales Ferry Intermodal 1737 & 1761 Route 12, Gales Ferry, CT 06335 Prepared For: Gales Ferry Intermodal LLC 549 South Street, Quincy, MA 02169 Scale: 1” = 100’ Comm. No. 045JC2.06 Drawn By ESF Approved By SRM Date 04/03/2023 Rev. 1 Response to Inland Wetland Commission Comments 06/06/2023 By SRM 2 Response to Inland Wetland Commission Comments 07/10/2023 By SRM 3 For PZC Submission 09/27/2023 By SRM Drawing C-5 Sheet No. 9 No. of Sheets 13” prepared by Loureiro Engineering Associates, Inc. (hereinafter, the “Erosion Control Plan”). In no event shall actual excavation and rock extraction operations commence until such time as erosion and sediment control measures have been installed and inspected and approved by the Town of Ledyard Zoning Enforcement Officer and Ledyard Wetlands Enforcement Officer.

2. The Applicant’s engineer shall delineate in the field the limits within which the Phase 1 excavation and extraction operations shall occur and will further designate the location for the installation of the security fence to be installed at the limits of the proposed earth product excavation and rock extraction operation, which security fence shall generally extend westerly from Connecticut Route 12 to the limits of the Providence & Worcester Railroad right of way generally following the northerly limits of the Connecticut Light and Power Company transmission line easement and the protected periphery of the Fort Decatur historic site as depicted on the Erosion Control Plan.

3. All operations approved under the special permit issued by the Town of Ledyard Planning and Zoning Commission shall be conducted by the Applicant in accordance with the approved Plan and this Narrative. This Narrative and the approved Plan shall be incorporated into the special permit and site plan approval granted by the Town of Ledyard.
Planning and Zoning Commission for the excavation activities to be conducted on the Property in accordance with the modified special permit.

4. All erosion and sediment control measures shall be inspected at least weekly while activities are ongoing and after every storm event resulting in a discharge and repaired and maintained as necessary.

5. Chase Davis, representative of Gales Ferry Intermodal, LLC, shall be responsible for compliance with all erosion and sediment control measures in conjunction with the excavation and extraction operations. The address of Chase Davis is 549 South Street, Quincy, Massachusetts 02169. The telephone number for Chase Davis is (781) 789-9397. The e-mail address for Chase Davis is cdavis@jaycashman.com. All erosion and sediment control measures shall be inspected, maintained and/or repaired, as necessary, on a weekly basis and after each storm occurrence resulting in a discharge. Chase Davis shall be the designated representative for the implementation of all of the terms and conditions of the erosion and sedimentation control plan with respect to the proposed excavation operation which is the subject of this special permit modification and site plan application.

6. Until the site is fully stabilized, any erosion which occurs shall be immediately repaired by the Applicant and stabilized in accordance with the terms and provisions of this Narrative and the Erosion Control Plan.

7. Once stabilization has been completed and certification thereof obtained in writing from the Zoning Enforcement Officer of the Town of Ledyard and the Wetlands Enforcement Officer of the Town of Ledyard, all erosion and sediment control measures shall be removed by the Applicant.

8. The excavation and rock extraction contemplated by this application will be accomplished in five (5) phases, with the active excavation and extraction area, at any point in time, limited to a maximum of ten (10) acres. It is intended that the operations contemplated by this special permit modification and site plan application will render the southerly portion of the Applicant’s property in a condition suitable for future utilization for other mixed commercial/industrial uses permitted in the industrial zoning district pursuant to the Zoning Regulations of the Town of Ledyard. Until such uses have been implemented, the completed excavation area shall be stabilized in accordance with the procedures delineated in the Construction Sequencing section of this Narrative.

**CONSTRUCTION SEQUENCING**

1. The Applicant shall, prior to the commencement of operations on the Property in accordance with the special permit modification application for excavation – major, secure all necessary local, state and federal permits and file all applicable stormwater registrations as required by applicable law.

2. The Applicant shall engage in the pre-construction meeting with the Town of Ledyard staff as required by Paragraph 1 of the General Procedures section of this Narrative.
3. Phase 1 of the proposed excavation operation for this project has been designed by the project engineer to create a “keyway” for the Phase 1 excavation area. The Phase 1 area has been designed to access the site which is the subject of the special permit modification at its interface with the capped latex landfill as depicted on the Plan and thereafter extends interior to the site commencing at approximate Elevation 70. Phases 2, 3 and 4 have been designed to continue excavation and rock extraction operations extending eventually to the southerly limit of the excavation as depicted on the Plan. This methodology has been designed to maintain the last Phase, the Phase 5 excavation and extraction area, as a buffer during the first four (4) phases of the excavation and extraction operation. The maintenance of the vegetated buffer along the northwesterly periphery of the proposed excavation area will buffer activities on the site, both visually and audibly throughout the tenure of the excavation operation. Once Phases 1 – 4 of the excavation and extraction operation have been completed, the Phase 5 excavation area will be regraded by blasting the material to be extracted from inside the operating area, working from south to north, in order to maintain the visual and audible buffer until the completion of the entire extraction operation.

4. The Applicant shall install a security fence extending westerly from Connecticut Route 12 to the Providence & Worcester Railroad right of way, generally along the northerly periphery of the Connecticut Light and Power Company transmission line easement, but deviating therefrom in order to exclude from the operating area the designated historic site of Fort Decatur. The security fence shall be installed prior to the initiation of Phase 1 excavation activities and shall be maintained in place for the duration of the five (5) phase industrial excavation and extraction operation.

5. The Applicant shall clear and grub the Phase 1 excavation area to ready the site for the installation of erosion and sediment control measures proposed, as depicted on the Erosion Control Plan.

6. The Applicant shall install erosion control measures as depicted on the Erosion Control Plan in the areas delineated thereon for Phase 1 activities, which erosion control measures shall be installed in accordance with the details depicted on the Plan.

7. In the initial phase of excavation, there is no operating room within the limits of the Phase 1 excavation area for material processing and handling. Testing performed on the overburden layer throughout the proposed excavation and extraction area evidences the fact that the overburden contains soils which do not possess marketable qualities for use in the marketplace for the manufacture of either concrete or bituminous concrete. Therefore, the overburden constitutes fill material only and must be removed from the site to enable rock extraction to occur in order to achieve the usable industrial pad which constitutes the closure plan for the excavation and extraction operation. Overburden, as excavated, will therefore be removed from the project site by truck for utilization in regional projects which require fill material.

8. The Applicant will limit truck traffic generated from the removal of overburden from the site to 100 truck trips per day. All truck traffic will be directed through the signalized intersection with Route 12.
9. Since the initial phase of the excavation and extraction operation allows no available space for material processing or storage, stone material will be transported either by bucket loader or site truck to a processing plant which will be established westerly of the Phase 1 excavation area as depicted on the Plan. This area, which is currently paved (environmental cap) will be prepared in order to preserve the integrity of the environmental cap. Processed material will be sorted by the processing equipment and thereafter moved to the aggregate storage stockpile areas as delineated on the Plan. The processing of “shot rock” will not include any washing operation.

10. Bedrock will be severed from the land in well-designed and controlled blasts in order to produce “shot rock” for processing. Prior to the initial blast, the Applicant shall conduct a pre-blast survey. The Applicant’s geotechnical/blasting consultant will determine a safe pre-blasting survey radius. The pre-blast survey will include collecting background water quality and supply data for nearby domestic wells and surface water. In addition, all structure foundations within the pre-blast survey radius will be inspected in order to determine existing conditions. Each blast will be monitored with a seismograph at predetermined locations in order to record the data (ground vibration and air overpressure (decibel levels)) associated with each blast to ensure that each blast is being conducted in a safe and proper manner which will not result in property damage.

11. Shot rock shall be removed from the Phase 1 extraction site by either bucket loader or site trucks for processing in the temporary processing facility located above the capped latex landfill as depicted on the Plan.

12. The Applicant anticipates that most all aggregate material obtained from the industrial regrading activities on the Property will be removed from the Property by marine vessels over the newly constructed heavily reinforced pier.

13. As depicted on the Plan, the final grades of the excavation and extraction operation will be benched with 25-foot horizontal benches being provided for each 50 feet of vertical rise in order to maintain the structural stability of the final southerly rock face as specified by the project geotechnical engineer.

14. As depicted on the Erosion Control Plan, temporary sedimentation basins will be created in the floor of the regraded area throughout the duration of the project. The temporary sedimentation basins will be blasted into the floor of the excavation and will be designed to comply with the requirements of the 2002 Erosion and Sediment Control Guidelines adopted by the State of Connecticut Department of Energy and Environmental Protection.

15. When sufficient operating area has been created in the Phase 1 excavation area, the crushing and material sorting facility will be moved from its temporary location as depicted on the Plan to a location internal to the extraction area itself.

16. The floor of the site for industrial regrading shall be over-blasted to a minimum of 6 feet and will thereafter be stabilized by back-filling the same with a minimum of 6 feet of structural fill in accordance with the cross-section details contained on Sheet XS-1 of the
Plan. The placement of structural fill will ensure the suitability of the completed project area for future use for industrial development, including the installation of underground utilities required in order to support that industrial development. Due to the fact that the structural material placed and compacted in the floor of the excavation area will be of rock composition, it will be a non-erodible surface which will not require further site stabilization.

17. It is not anticipated that the activities involved in the excavation and extraction operations will create any objectionable impacts either from noise or dust. With respect to dust, all equipment utilized for the processing of rock on the site will be equipped with spray devices which will, during active processing operations, constantly emit a mist of water in order to prevent the fugitive migration of dust resulting from processing operations. In addition, the Applicant’s contractor shall continually maintain on site for the duration of the project, a site water truck with a spray bar which will spray the operating floor of the extraction area as well as maneuvering aisles to prevent the migration of fugitive dust. As to sound emission, the project has been designed by the project engineer, as outlined above, to create a keyway into the site which will remain bermed to the north by the Phase 5 operating area and buffered to the south by the extraction wall. As such, activities will be conducted in a “bowl” resulting from the created topography for the site operations which will mitigate sound emissions resulting from the excavation, extraction and processing activities. As required by Connecticut State Regulations, the Applicant will be required to maintain sound levels at the boundaries of the Property at or below the daytime maximum sound limits established by the State of Connecticut Department of Energy and Environmental Protection. As delineated in Paragraph 18 below, no night-time operations are proposed in conjunction with the activities which will be permitted by the special permit modification application.

18. Blasting shall not be conducted prior to 11:00 AM or after 4:00 PM and efforts to limit the size of blasting “shots” shall be made by the Applicant’s blasting consultant consistent with the project needs. Hours of operation for the excavation and extraction activities will be Monday through Friday from 7:30 am to 5:30 pm and Saturdays from 9:00 am to 5:30 pm. There will be no nighttime operations conducted in conjunction with this project, and there shall be no operational activities on Sundays and the following holidays: Christmas, New Year’s Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day.

19. The closure plan for the project is intended to create approximately 40 acres of land suitable for future industrial development. As depicted on the Plan, the final site grading will result in industrial land graded at a slope of approximately 1% extending from its high point near the westerly line of Connecticut Route 12 at Elevation 42 to its low point adjacent easterly to the Thames River at Elevation 16. The final site grading and construction will render the same immediately available for development of future industrial uses allowed in the industrial zoning district pursuant to the terms and provisions of the Zoning Regulations adopted by the Town of Ledyard Planning and Zoning Commission. Until this site is prepared for development as contemplated by this application, the potential for this parcel of prime industrial land to support such development is extremely limited.
CONSISTENCY WITH COASTAL POLICIES AND GOALS

The Property is located within the Coastal Management Area. The application submitted herewith is therefore, in addition to an application for site plan and special permit modification approval, an application for Coastal Area Management approval. As indicated above, this phase of the redevelopment of the Property will create 40 +/- acres of prime industrial land adjacent easterly to the Thames River. This will provide a unique opportunity for regional development which is materially enhanced by the presence of the deep water access that the Property enjoys creating a plethora of opportunities for future intermodal development of the site.

Coastal resources located on the site (with the site being defined as the entirety of the Property) as depicted on a plan entitled “Coastal Area Management Plan Gales Ferry Intermodal 1761 Route 12, Gales Ferry, Connecticut 06335 Gales Ferry Intermodal, LLC 549 South Street, Quincy, MA 02169 Drawing C-11 Sheet No. 14 No. of Sheets 20 Scale As Noted Comm. No. 045JC2.06 Drawn By: ESF Date 03/07/2023 Approved By SRM Date 03/07/2023 Loureiro Engineering Associates, Inc. 100 Northwest Drive · Plainville, Connecticut 06062 Phone: 860-747-6181 Fax: 860-747-8822” (the “Coastal Site Plan”) are as follows:

(a) Developed shorefront, defined as port and harbor areas which have been highly engineered and developed resulting in the functional impairment or substantial alteration of their natural physiographic features or systems.

(b) Water – open water bodies such as but not limited to lakes and ponds subject to regulation under Sections 22a-36 to 22a-45 of the Connecticut General Statutes (Allyn’s Pond).

(c) Regulated tidal wetlands – official state designated and regulated tidal wetlands located within the coastal boundary.

(d) Coastal flood hazard areas – 100 year coastal flood hazard areas as identified by the Federal Emergency Management Agency (FEMA). On those coastal areas currently unmapped by FEMA, the flood hazard area is conservatively approximated by the 10’ contour interval.

(e) Estuarine embayments – protected coastal water bodies with an open connection to the Sound including tidal rivers, bays, coves and lagoons.

(f) Shorelands – upland areas at elevations in excess of the 100 year still water flood level and located within the coastal boundary (the entirety of the area contemplated for development by this application).

In conjunction with the development of this project, all activities proposed in conjunction with the excavation and extraction of earth product and rock material located in the southerly portion of the Property will occur on shorelands and will not adversely affect coastal resources. However, the presence of the developed shorefront area of the Property has the unique ability to facilitate the mass movement of material in conjunction with this proposed excavation and extraction operation and the prompt delivery of the extracted and processed aggregate to recognized markets.
Within the context of the Coastal Management Act, the activities contemplated by this application, which will create usable industrial land with deep water access, are categorized as general development. Policies applicable to general development are as follows:

(a) To ensure that the development, preservation or use of the land and water resources of the coastal area proceeds in a manner consistent with the capability of the land and water resources to support development, preservation or use without significantly disrupting either the natural environment or sound economic growth.

(b) To resolve conflicts between conflicting uses on the shorelands adjacent to marine and tidal waters by giving preference to uses that minimize adverse impacts on natural coastal resources while providing long term and stable economic benefits.

The findings contained in the Coastal Management Act include the following:

“It is found and declared that there exists in the State a great and growing need for industrial and commercial development and activity to provide and maintain employment and tax revenue; that assistance and encouragement of industrial and commercial development to provide and maintain such employment and revenues is an important function of the State; that the availability of financial assistance and suitable facilities are important inducements to industrial and commercial enterprises to remain or locate in this State and therefore the necessity in the public interest and for the public benefit and good for the provisions of this chapter is hereby declared as a matter of legislative determination… It is further found and declared that there exists a great and growing need for the acquisition and construction of railroads for the operation of freight and passenger trains and associated equipment to transport persons and goods and for the acquisition and construction of: facilities and equipment necessary or useful in connection with railroad operations, including railroad rights of way and all associated tracks and facilities, including but not limited to switches, sidings, yards, signal systems and bridges; related plant facilities, including but not limited to station buildings, maintenances and storage facilities… shop equipment… and therefore this necessity is in the public interest and for the public benefit and good is hereby declared as a matter of legislative determination.”

The Coastal Management Act further enunciates as a goal “Economic Development Policy A” (strengthening of State economy by attracting private investment…”

The proposed use will support water dependent uses that make use of existing developed shorefront, including the presence of an existing pier located on deep water which has the ability to accommodate large scale commercial and industrial vessels. No adverse impacts are anticipated to coastal resources resulting from the contemplated development. This Application contemplates only the regrading of shorelands without otherwise impacting any other coastal resources. The proposed use takes advantage of the unique characteristics of the Property including deepwater and rail access at the Property which will facilitate the mass movement of material in the most economic manner and alleviate potential undesirable impacts to the community. As a component of the overall development of the former Dow Chemical properties located at 1761 and 1737 Route 12, Ledyard, Connecticut, this component of the overall project attains consistency with the
policies and goals for shorelands located within the coastal boundary enunciated by the Connecticut Legislature in implementing a use which will take advantage of the logistical characteristics of industrial property located in the coastal zone to foster economic development. These attributes are specifically referenced in the Coastal Policies and Use Guidelines.

The project will provide an immediate use of the reconstructed pier on the Property and encourage water dependent uses that will utilize the existing pier for shipping of bulk materials by barge and vessel.

The project consists of the next phase of the redevelopment of an existing industrially developed shorefront property (although the activities occurring in conjunction with this component of the overall redevelopment of the Property are occurring solely on shorelands) to provide newly created usable industrial land which can take advantage of the river and the Property’s deep water access and reconstructed and expanded pier. The Applicant submits that there are no adverse impacts to coastal resources which require mitigation in conjunction with this application.

The project is not located within a designated federal flood hazard area.
GALES FERRY INTERMODAL, LLC

By: [Signature]

Harry B. Heller, its Agent, duly authorized
EXHIBIT A
SOIL CHARACTERISTICS ON THE PROPERTY

The proposed industrial regrading area contains a mix of upland soils as well as three (3) regulated inland wetland areas. For purposes of permitting before the Town of Ledyard Inland Wetlands and Watercourses Commission, it was anticipated that the proposed industrial grading activities would either eliminate wetlands resources or deplete the hydrology that supports them. In light of this professional conclusion, the Applicant has been required to mitigate for the anticipated loss of wetland resources by creating new wetland systems as depicted on the plans that were approved by the municipal Inland Wetlands and Watercourses Commission.

UPLAND SOILS

**Ud - Udorthents - Pitts Complex, Gravely.** This complex consists of excessively drained to moderately well-drained soils that have been disturbed by cutting or filling and areas of gravel pits. Areas of this complex are mostly 5 to 30 acres. Slopes range from 0 to 15%. About 65% of this complex is Udorthents, 25% is gravel pits and 10% is other soils. Areas of Udorthents are so intermingled that it was not practical to map them separately. In this instance, the Udorthents soils comprise an area of the project site which has historically been utilized for industrial activities, including portions of a capped latex landfill. These soils are found in areas where more than 2 feet of the upper part of the original soil has been removed, or in areas that have been covered by more than 2 feet of fill material. Udorthents are in loamy or sandy glacial till and gravelly or very gravelly outwash. Udorthents are found on the landscape near excessively drained Hinckley soils, somewhat excessively drained Hollis and Merrimack soils, well-drained Canton, Charlton, Narragansett, Agawam, Paxton and Montauk soils and moderately well-drained Sutton, Woodbridge, Rainbow, Sudbury and Ninigret soils. Coarse fragments range from 0-65% in the soil. Udorthents are very strongly acid to slightly acid.

**HkD - Hinckley Gravelly Sandy Loam 15 to 35% Slopes.** This moderately steep and steep, excessively drained soil is found on stream terraces, outwash plains, kames and eskers. Mapped areas are dominantly irregular in shape and mostly 2 to 35 acres. The Hinckley soils are found near excessively drained Windsor soils, somewhat excessively drained Merrimack soils, well-drained Agawam and Haven soils, moderately well-drained Sudbury soils, poorly drained Walpole soils and very poorly drained Scarboro soils. Hinckley soils have a greater content of gravel than Merrimack, Agawam, Haven and Windsor soils.

The soil stratification for this Hinckley soil is as follows:

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0” – 7”</td>
<td>Dark brown gravelly sandy loam; weak fine granular structure; very friable; many fine roots; 20% coarse fragments; medium acid; abrupt wavy boundary.</td>
</tr>
<tr>
<td>7” – 14”</td>
<td>Yellowish brown gravelly loamy sand; single grain; loose; few fine roots; 25% coarse fragments; medium acid; gradual wavy boundary.</td>
</tr>
</tbody>
</table>
14” – 22” Yellowish brown gravelly loamy sand; single grain; loose; few fine roots; 40% coarse fragments; strongly acid; clear wavy boundary.

22” – 60” Brownish yellow very gravelly coarse sand; single grain; loose; 60% coarse fragments; medium acid

*(HrD) - Hollis – Charlton – Rock Outcrop 15 – 45% Slopes.* This moderately steep to very steep complex consists of somewhat excessively drained and well-drained soils and rock outcrops on glacial till uplands. Stones and boulders cover 1 to 8% of the surface. The soils and rock outcrops in this complex are so intermingled on the landscape that it was not practical to separate them in mapping at the scale used. This complex is about 40% Hollis soil, 25% Charlton soil, 20% rock outcrop and 15% other soils.

The stratification of the Hollis soil is as follows:

0” – 2” Very dark brown fine sandy loam; weak medium granular structure; very friable; many fine roots; 5% rock fragments; strongly acid; clear wavy boundary.

2” – 5” Dark brown fine sandy loam; weak medium granular structure; very friable; common fine roots; 5% rock fragments; strongly acid; gradual wavy boundary.

5” – 12” Dark yellowish brown fine sandy loam; weak medium subangular blocky structure; very friable; common fine roots; 5% rock fragments; strongly acid; gradual wavy boundary.

12” – 17” Dark yellowish brown fine sandy loam; weak medium subangular blocky structure; very friable; common fine roots; 5% rock fragments; strongly acid.

17” Hard, unweathered bedrock.

The stratification of the Charlton soils is as follows:

0” – 8” Very dark grayish brown fine sandy loam; weak medium granular structure; friable; common fine and medium roots; 10% rock fragments; strongly acid; abrupt wavy boundary.

8” – 15” Dark grayish brown fine sandy loam; weak medium subangular structure; friable; common fine and medium roots; 15% rock fragments; medium acid; gradual wavy boundary.

15 – 24” Yellowish brown fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; 15% rock fragments; medium acid; clear wavy boundary.
24” – 29”  Light olive brown fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; 15% rock fragments; medium acid; clear wavy boundary.

29” – 60”  Grayish brown fine sandy loam; massive; friable; 15% rock fragments; medium acid.

(HrC) - Hollis – Charlton – Rock Outcrop Complex 3-15% slopes. This gently sloping to sloping complex consists of somewhat excessively drained and well-drained soils and rock outcrops on glacial till uplands. Stones and boulders cover 1 to 8% of the surface. Mapped areas are irregular in shape and mostly 2 to 45 acres. The soils and rock outcrops in this complex are so intermingled on the landscape that it was not practical to separate them in mapping at the scale used. This complex is about 40% Hollis soil, 25% Charlton soil, 20% rock outcrop and 15% other soils.

The soil stratification of the Hollis soil is as follows:

0” – 2”  Very dark brown fine sandy loam; weak medium granular structure; very friable; many fine roots; 5% rock fragments; strongly acid; clear wavy boundary.

2” – 5”  Dark brown fine sandy loam; weak medium granular structure; very friable; common fine roots; 5% rock fragments; strongly acid; gradual wavy boundary.

5” – 12”  Dark yellowish brown fine sandy loam; weak medium subangular blocky structure; very friable; common fine roots; 5% rock fragments; strongly acid; gradual wavy boundary.

12” – 17” Dark yellowish brown fine sandy loam; weak medium subangular blocky structure; very friable; common fine roots; 5% rock fragments; strongly acid.

17”  Hard, unweathered bedrock.

The soil stratification of the Charlton soils is as follows:

0” – 8”  Very dark grayish brown fine sandy loam; weak medium granular structure; friable; common fine and medium roots; 10% rock fragments; strongly acid; abrupt wavy boundary.

8” – 15”  Dark grayish brown fine sandy loam; weak medium subangular structure; friable; common fine and medium roots; 15% rock fragments; medium acid; gradual wavy boundary.
15 – 24”  Yellowish brown fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; 15% rock fragments; medium acid; clear wavy boundary.

24” – 29”  Light olive brown fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; 15% rock fragments; medium acid; clear wavy boundary.

29” – 60”  Grayish brown fine sandy loam; massive; friable; 15% rock fragments; medium acid.